H.R. 2012, A BILL TO IMPROVE THE INTEGRITY AND SAFETY OF INTERSTATE HORSERACING, AND FOR OTHER PURPOSES

HEARING

BEFORE THE

SUBCOMMITTEE ON COMMERCE, MANUFACTURING, AND TRADE

OF THE

COMMITTEE ON ENERGY AND COMMERCE

HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

NOVEMBER 21, 2013

Serial No. 113–102

Printed for the use of the Committee on Energy and Commerce
energycommerce.house.gov

U.S. GOVERNMENT PUBLISHING OFFICE

93–259 PDF WASHINGTON : 2015

For sale by the Superintendent of Documents, U.S. Government Publishing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON ENERGY AND COMMERCE

FRED UPTON, Michigan
Chairman

RALPH M. HALL, Texas
JOE BARTON, Texas
Chairman Emeritus
ED WHITFIELD, Kentucky
JOHN SHIMKUS, Illinois
JOSEPH R. PITTS, Pennsylvania
GREG WALDEN, Oregon
LEE TERRY, Nebraska
MIKE ROGERS, Michigan
TIM MURPHY, Pennsylvania
MICHAEL C. BURGESS, Texas
MARSHA BLACKBURN, Tennessee
Vice Chairman
PHIL GINGREY, Georgia
STEVE SCALISE, Louisiana
ROBERT E. LATTA, Ohio
CATHY MCMORRIS RODGERS, Washington
GREGG HARPER, Mississippi
LEONARD LANCE, New Jersey
BILL CASSIDY, Louisiana
BRETT GUTHRIE, Kentucky
PETE OLSON, Texas
DAVID B. MCKINLEY, West Virginia
CORY GARDNER, Colorado
MIKE POMPEO, Kansas
ADAM KINZINGER, Illinois
H. MORGAN GRIFFITH, Virginia
GUS M. BILIRAKIS, Florida
BILL JOHNSON, Ohio
BILLY LONG, Missouri
RENEE L. ELLMERS, North Carolina

HENRY A. WAXMAN, California
Ranking Member
JOHN D. DINGELL, Michigan
FRANK PALLONE, JR., New Jersey
BOBBY L. RUSH, Illinois
ANNA G. ESHOO, California
ELIOT L. ENGEL, New York
GENE GREEN, Texas
DIANA DEGETTE, Colorado
LOIS CAPPS, California
MICHAEL F. DOYLE, Pennsylvania
JANICE D. SCHAKOWSKY, Illinois
JIM MATHESON, Utah
G.K. BUTTERFIELD, North Carolina
JOHN BARROW, Georgia
DORIS O. MATSUI, California
DONNA M. CHRISTENSEN, Virgin Islands
KATHY CASTOR, Florida
JOHN P. SARBANES, Maryland
JERRY MCNERNEY, California
BRUCE L. BRALEY, Iowa
PETER WELCH, Vermont
BEN RAY LUJAN, New Mexico
PAUL TONKO, New York
JOHN A. YARMUTH, Kentucky

SUBCOMMITTEE ON COMMERCE, MANUFACTURING, AND TRADE

LEE TERRY, Nebraska
Chairman

LEONARD LANCE, New Jersey
Vice Chairman
MARSHA BLACKBURN, Tennessee
GREGG HARPER, Mississippi
BRETT GUTHRIE, Kentucky
PETE OLSON, Texas
DAVID B. MCKINLEY, West Virginia
MIKE POMPEO, Kansas
ADAM KINZINGER, Illinois
GUS M. BILIRAKIS, Florida
BILL JOHNSON, Ohio
BILLY LONG, Missouri
JOE BARTON, Texas
FRED UPTON, Michigan *(ex officio)*

JANICE D. SCHAKOWSKY, Illinois
Ranking Member
JOHN P. SARBANES, Maryland
JERRY MCNERNEY, California
PETER WELCH, Vermont
JOHN A. YARMUTH, Kentucky
JOHN D. DINGELL, Michigan
BOBBY L. RUSH, Illinois
JIM MATHESON, Utah
JOHN BARROW, Georgia
DONNA M. CHRISTENSEN, Virgin Islands
HENRY A. WAXMAN, California *(ex officio)*

C O N T E N T S

[1] Additional material from Mr. Hanrahan is available at http://cradmin.clerk.house.gov/repository/IF/IF17/20131121/101517/HHRG-113-IF17-Wstate-HanrahanP-20131121-U2.pdf and http://docs.house.gov/meetings/IF/IF17/20131121/101517/HHRG-113-IF17-Wstate-HanrahanP-20131121-U4.pdf.

[2] Additional material from Mr. Soma is available at http://docs.house.gov/meetings/IF/IF17/20131121/101517/HHRG-113-IF17-Wstate-SomaL-20131121-SD001.pdf and http://docs.house.gov/meetings/IF/IF17/20131121/101517/HHRG-113-IF17-Wstate-SomaL-20131121-SD002.pdf.

[3] Additional material from Ms. Lyons is available at http://docs.house.gov/meetings/IF/IF17/20131121/101517/HHRG-113-IF17-Wstate-LyonsS-20131121-SD005.pdf.

SUBMITTED MATERIAL

H.R. 2012, A BILL TO IMPROVE THE INTEGRITY AND SAFETY OF INTERSTATE HORSERACING, AND FOR OTHER PURPOSES

THURSDAY, NOVEMBER 21, 2013

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COMMERCE, MANUFACTURING, AND TRADE,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:04 a.m., in room 2322 of the Rayburn House Office Building, Hon. Lee Terry (chairman of the subcommittee) presiding.

Members present: Representatives Terry, Lance, Blackburn, Harper, Guthrie, Bilirakis, Johnson, Sarbanes, McNerney, Yarmuth, Barrow, Christensen, and Waxman (ex officio).

Also present: Representative Pitts.

Staff present: Kirby Howard, Legislative Clerk; Nick Magallanes, Policy Coordinator, Commerce, Manufacturing, and Trade; Gib Mullan, Chief Counsel, Commerce, Manufacturing, and Trade; Andrew Powaleny, Deputy Press Secretary; Heidi Stirrup, Policy Coordinator, Health; Shannon Taylor, Counsel, Commerce, Manufacturing, and Trade; Michelle Ash, Democratic Chief Counsel, Commerce, Manufacturing, and Trade; and Will Wallace, Democratic Professional Staff Member.

Mr. TERRY. We are going to start our hearing. Some of you have testified before or been around our testimony, so you have a pretty good handle on how it works. I will have an opening statement, and Mr. Sarbanes will have. We will have statements that should go about 10 minutes per side. And then we are going to go right into your testimony. And we will go for Mr. Overton to my right. So let us start the clock.

OPENING STATEMENT OF HON. LEE TERRY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEBRASKA

Good morning, and thank you all for joining us on our second in a series of horse related hearings. And as I mentioned last week, I have very fond memories of working at the racetrack in Omaha, Nebraska. And even when I was finished working there, I just couldn't get away from it. There is just such a romance with those thoroughbreds. I just loved sitting there, standing on the rail of the stretch. And as they come around that corner and you can just feel the ground shaking from their power, and just majestic animals. So I have a real love for our racehorse industry and those horses.

And so that is why we are here today, is to talk about the future of thoroughbred horseracing and how the horses have been treated, and some of the allegations that have been made through what I would say community-based organizations, but also legitimate news organizations. So the perception is that the doping or drug use for the horses has become pervasive. In fact, in a pool done by a jockey club that has been quoted many times by my colleagues, and this is the major handicappers and bettors, will actually take into account the witch barns, trainers, have a reputation for using masking drugs and eliminate them from their handicapping, and maybe even some tracks that have a reputation versus other tracks for how tough they are in enforcing the no-drugs policy.

Now, these types of unsavory practices bring two major concerns to the forefront. Number one is the safety of the jockeys. And there has been one study that showed that 24 horses a week have some incident on the track while they are racing. While the animal itself we should care for, the most important is the human being on top of that. It is a dangerous sport. We know when a horse is racing, and it should not be due to injury that both the animal and the human being are exposed to those dangers. And I am deeply concerned about the implications to the fairness of the horseracing and the pervasive, or perceived pervasive, use of PEDs may have.

In 1978 when Congress passed the Interstate Horseracing Act, one of the issues Congress sought to address was a responsible atmosphere for off-track betting so that people could place wagers on horses with a degree of certainty that this was a regulated affair. To put it bluntly, if PEDs are being used, that is cheating. And you are cheating the bettors to the point where the big handicappers won't bet on races where they think horses may have been doped. So it is not acceptable, and I compliment Joe Pitts and Jan Schakowsky for this legislation.

[The prepared statement of Mr. Terry follows:]

PREPARED STATEMENT OF HON. LEE TERRY

Good morning, and thank you for joining us for what will be the second hearing on horse-related issues in the past two weeks.

As I mentioned in my remarks last week, I have a great affinity for horses. Growing up, and then as a student, I worked part-time at the local Aksarben Race track. And for reference, Aksarben is Nebraska spelled backwards. But it was there I got to see firsthand how the world of horseracing works—both on the front and back end of the track.

Unfortunately, I was not surprised when I read last year an article exposing the drugging of racehorses on race day.

It has become so pervasive that a recent poll by the Jockey Club found that four in five handicappers and/or bettors take into account race-day drugs and other performance-enhancing drugs when betting on races.

These types of unsavory practices bring two major concerns to the forefront: the safety of the horse and jockey; and the issue of fairness.

We know that when a horse is racing and should not be due to injury, both the animal and the human being that is riding it are exposed to a higher degree of risk. I believe this is unacceptable.

I am also deeply concerned about the implications to fairness that the pervasive use of PEDs may have.

In 1978, when Congress passed the Interstate Horseracing Act, one of the issues Congress sought to address was a responsible atmosphere for off-track betting, so that people could place wagers on horseraces with a degree of certainty that this was a regulated affair. Today, you can go to a racetrack and place a bet on a horse

that you happen to know may have an advantage over another horse. Which then puts you at an advantage over another bettor. This is not acceptable.

The Pitts-Schakowsy legislation would designate the U.S. Anti-Doping Agency as the anti-doping organization with the responsibility for testing and ensuring the integrity and safety of races where off-track betting is permitted.

The legislation would also create a stricter regulatory framework for certain substances and impose an outright ban on others.

I would like to thank our witnesses for attending today's hearing and thank my friend Chairman Joe Pitts for joining us today to discuss his legislation.

[H.R. 2012 follows:]

I

113TH CONGRESS
1ST SESSION

H. R. 2012

To improve the integrity and safety of interstate horseracing, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MAY 16, 2013

Mr. PITTS (for himself, Mr. WHITFIELD, Ms. SCHAKOWSKY, and Ms. ESHOO) introduced the following bill; which was referred to the Committee on Energy and Commerce

---

A BILL

To improve the integrity and safety of interstate horseracing, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Horseracing Integrity and Safety Act of 2013".

SEC. 2. DEFINITIONS.

In this Act:

(1) INTERSTATE OFF-TRACK WAGER; HORSEMEN'S GROUP; HOST RACING ASSOCIATION; OFF-TRACK BETTING SYSTEM.—The terms "interstate

off-track wager", "horsemen's group", "host racing association", and "off-track betting system" have the meanings given those terms in section 3 of the Interstate Horseracing Act of 1978 (15 U.S.C. 3002).

(2) VETERINARIAN-CLIENT-PATIENT RELATIONSHIP.—The term "veterinarian-client-patient relationship" has the meaning of that term as used in the Principles of Veterinary Medical Ethics of the American Veterinary Medical Association (as in effect on the date of the enactment of this Act).

SEC. 3. INDEPENDENT ANTI-DOPING ORGANIZATION FOR INTERSTATE HORSERACING.

(a) IN GENERAL.—There shall be an independent anti-doping organization with responsibility for ensuring the integrity and safety of horseraces that are the subject of interstate off-track wagers.

(b) DUTIES.—The duties of the independent anti-doping organization referred to in subsection (a) with respect to horseraces described in that subsection are the following:

(1) Developing, publishing, and maintaining rules with respect to—

(A) substances, methods, and treatments that may not be administered to a horse participating in such a horserace;

(B) substances, methods, and treatments that may be administered to a horse participating in such a horserace in the context of a veterinarian-client-patient relationship; and

(C) the use of substances, methods, and treatments permitted under subparagraph (B), including rules with respect to the period before a horserace (which may not be less than 24 hours before a horserace) during which a horse may no longer receive such substances, methods, and treatments.

(2) Implementing programs relating to anti-doping education, research, testing, and adjudication to prevent any horse participating in a horserace described in subsection (a) from racing under the effect of any substance, method, or treatment that could affect the performance of the horse (other than a substance, method, or treatment described in subparagraph (B) of paragraph (1) administered during a time period that is permitted under subparagraph (C) of that paragraph).

(3) Excluding from participating in any horserace described in subsection (a) any person that the independent anti-doping organization or a State racing commission determines—

(A) has violated a rule with respect to a substance, method, or treatment that may not be administered to a horse participating in such a horserace under subparagraph (A) of paragraph (1);

(B) has violated 3 or more times a rule with respect to a substance, method, or treatment permitted under subparagraphs (B) and (C) of that paragraph that has the ability to affect the performance of a horse; or

(C) is subject to a suspension from horseracing activities by any State racing commission.

(c) DEADLINE.—The independent anti-doping organization referred to in subsection (a) shall publish the rules required by subsection (b) not later than one year after the date of the enactment of this Act.

(d) SUSPENSION OF EXCLUSION PERIOD.—The independent anti-doping organization referred to in subsection (a) may—

(1) suspend a period of exclusion from participating in a horserace imposed on a person pursuant to subsection (b)(3) if the person provides substantial assistance to the organization or other persons that results in the discovery of—

(A) a violation of a rule published under subsection (b) by another person; or

(B) a violation of Federal or State law by another person; and

(2) may reinstate all or part of a period of exclusion imposed on a person and suspended under paragraph (1) if the person fails to provide substantial assistance described in that paragraph.

(e) CONSULTATIONS.—In developing, publishing, and maintaining rules under subsection (b)(1), the independent anti-doping organization referred to in subsection (a) may consult with State racing commissions, host racing associations, horsemen's groups, and other interested persons.

(f) TRANSITION RULE WITH RESPECT TO FUROSEMIDE.—During the 2-year period beginning on the date of the enactment of this Act, the independent anti-doping organization referred to in subsection (a) shall permit the use of furosemide in a horse participating in a horserace described in subsection (a) if—

(1) the horse is 3 years old or older; and

(2) the use of furosemide—

(A) complies with the requirements of the document entitled "ARCI–011–020 Medications and Prohibited Substances" published by the Association of Racing Commissioners International, Inc.; and

(B) is within the context of a veterinarian-client-patient relationship.

(g) DESIGNATION OF ORGANIZATION.—The independent anti-doping organization designated pursuant to section 701 of the Office of National Drug Control Policy Reauthorization Act of 2006 (21 U.S.C. 2001) shall serve as the independent anti-doping organization referred to in subsection (a).

SEC. 4. CONSENT REQUIRED FOR ACCEPTANCE OF INTERSTATE OFF-TRACK WAGERS.

(a) IN GENERAL.—On and after the date of the enactment of this Act, a host racing association may conduct a horserace that is the subject of an interstate off-track wager, and an interstate off-track wager may be accepted by an off-track betting system, only if consent is obtained from the independent anti-doping organization referred to in section 3(a).

(b) REQUIREMENT FOR AGREEMENT.—

(1) IN GENERAL.—A host racing association shall obtain the consent required by subsection (a) of the independent anti-doping organization referred to in section 3(a) pursuant to an agreement entered into between the association and the organization that specifies the terms and conditions relating to such consent, including—

(A) compliance with the rules published under section 3(b); and

(B) payments to the organization to defray the costs of carrying out the duties of the organization under this Act.

(2) DEFRAYAL OF COSTS.—The independent anti-doping organization referred to in section 3(a) shall ensure that all of the costs incurred by the organization in carrying out the duties of the organization under this Act are defrayed pursuant to agreements entered into under paragraph (1).

○

Mr. TERRY. And at this time, I have a minute 16 there to yield to somebody. Mr. Lance?

OPENING STATEMENT OF HON. LEONARD LANCE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. LANCE. Thank you very much, Mr. Chairman, and good morning to our distinguished panel and everyone in the audience. The thoroughbred industry has had a significant cultural and economic impact here in the United States. The industry supports over one million permanent jobs and has an estimated economic impact of over $100 billion. Beyond that, the thoroughbred industry is a part of American culture. Millions attend and watch events such as the Kentucky Derby and the Preakness Stakes each year, and thousands attend local races in their home communities. And New Jersey races at the Meadowlands and at Monmouth Park generate significant local interests and economic impact.

However, in recent years, the thoroughbred industry has been plagued by the usage of performance-enhancing drugs. This practice not only de-legitimizes the sport but also endangers both the horses that participate in these contests and the jockeys who are at risk of serious paralysis or death should a horse suffer an injury.

Doping in the thoroughbred industry is a concern for every industry stakeholder from the small time better who has had to take into account who is doping, what handicapping choices, to the owners who want to preserve the credibility of their industry.

I look forward to examining this legislation and hearing testimony from our diverse and distinguished panel. Thank you, Mr. Chairman.

Mr. TERRY. Thank you, Mr. Vice Chairman. And now the acting ranking member, Mr. Sarbanes, you are recognized for your 5 minutes.

OPENING STATEMENT OF HON. JOHN P. SARBANES, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MARYLAND

Mr. SARBANES. Thank you, Mr. Chairman. I won't take the full 5 minutes. I appreciate you convening this hearing so we can examine this important topic and the proposed legislation to address this issue of the use of performance-enhancing drugs in the horseracing industry.

As has been mentioned by the other members so far, this is a very important industry to the country, generating almost 150,000 jobs. It is a $10.6 billion industry nationally. Horseracing is important in my State. My district is right across the street—the boundary of it—right across the street from the Pimlico race track where the Preakness is held. I mention that only because everybody who goes to the race parks in the neighborhood of my constituents.

Mr. TERRY. Do you get to charge 5 bucks to park in front of your house?

Mr. SARBANES. They charge—yes, they charge more than that, actually, for people to park on their front lawns.

In addition, the Third District in Maryland is home to one of the largest memberships of the humane society in the country, so I am

very focused as well on the welfare of the horses. So this is an important topic of discussion. You do these things—to examine these things, you make sure that a sport like this is clean because it is in the long-term interest of the industry in maintaining the vibrancy of the industry in the eyes of the public and those who participate. So it is an important hearing.

I know we are trying to move quickly to the witnesses. I am prepared to yield time to any other members here if they would take it. Otherwise, I would be prepared to yield back.

Mr. TERRY. Thank you. Mr. Pitts, you are recognized for 2½ minutes.

OPENING STATEMENT OF HON. JOSEPH R. PITTS, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF PENNSYLVANIA

Mr. PITTS. Thank you, Mr. Chairman, for the recognition, for the privilege to join the important hearing today on H.R. 2012. I would like to augment my statement today by showing a short video clip, which sets the tone for why the Congress must act to protect jockeys, horses, and the public from the scourge of drugs in horseracing. Try to get sound.

[Video.]

Mr. PITTS. You can see on the TV screen a display of one horse, Coronado Heights, a 4-year-old thoroughbred that received a diagnosis of early degenerative joint disease but was raced anyway, broke down, was euthanized on the track. And I have—at your seat, you can see what was administered to him 1 week before he broke down, 17 syringes. So despite promises and assurances—statements—groups have been unable to come together to develop uniform rules. The fact remains that there is no single entity which has the authority to impose uniform rules on racing commissions, tracks, trainers and others. So I urge members to consider H.R. 2012, a sound national framework to protect horses, riders and the public. We look forward to hearing the witnesses. Thank you, Mr. Chairman.

Mr. TERRY. Gentleman from Florida, do you wish to make a statement?

OPENING STATEMENT OF HON. GUS M. BILIRAKIS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. BILIRAKIS. Thank you, Mr. Chairman. I appreciate it. Thank you very much for holding this very important hearing.

First, I want to echo those views that no one wants to see animals mistreated or harmed in any way. No horse should be intentionally neglected, mistreated or subjected to unnecessary trauma. Additionally, those that participate in interstate parimutuel activities should be assured that they are participating on a fair and transparent level that protects the integrity of the sport.

I do, however, wish to closely examine the most appropriate manners in which to ensure this. As a general guiding principle, all manners of compliance assistance and incentives with States and industries should be exhausted before further empowering agencies. This committee should applaud the growing efforts to adopt uniform national reforms on the State level. Tampa Bay Downs,

one of the country's oldest racetracks and the only thoroughbred racetrack on the west coast of Florida, is located in my congressional district, and it also supports this approach. And it is one of the more than 50 racetracks across the country to endorse these reforms.

Additionally, the Florida Division of Parimutuel Wagering is hosting a workshop tomorrow to receive public input on its rules regarding drugs and veterinarian procedures and enforcement.

Thank you again, Mr. Terry, and I look forward to hearing from the very—

Mr. TERRY. Thank you.

Mr. BILIRAKIS. Thank you.

Mr. TERRY. We have 1 minute. Does the vice chair of the full committee wish an opening statement?

Mrs. BLACKBURN. I would just simply welcome all of our witnesses. We are delighted that you are here. And yield back my time.

Mr. TERRY. Thank you. And that concludes all of the opening statements. Donna, do you have——

Mrs. CHRISTENSEN. If I could——

Mr. TERRY. Yes.

Mrs. CHRISTENSEN. This will take——

Mr. TERRY. You are——

OPENING STATEMENT OF HON. DONNA M. CHRISTENSEN, A REPRESENTATIVE IN CONGRESS FROM THE VIRGIN ISLANDS

Mrs. CHRISTENSEN. Thank you. Thank you, Mr. Chairman, and Ranking Member. I grew up in horseracing. My father had race horses. It is still one of my favorite sports. But I grew up in a time when these kinds of issues with drugging horses didn't happen. And I am just glad that we are having this hearing today. And I thank the witnesses and welcome them.

Mr. TERRY. Thank you very much. Now, that concludes our opening statements. A fun fact before we introduce our guests, our witnesses, that chariot racing was the first Olympic sport in 1680 B.C. Horseracing has been around a long time, and we want to keep it that way.

The witnesses? Henry, do you want to make a statement?

OK. I want to introduce all of our witnesses. As I mentioned, we will start with Mr. Overton, who is Chairman of SkyLearn, LLC, and former chairman of the Minnesota Racing Commission; Phil Hanrahan, Executive Officer, National Horsemen's Benevolent and Protective Association; Dr. Lawrence Soma, VMD, Professor Emeritus of Anesthesia and Clinical Pharmacology at University of Pennsylvania School of Veterinary Medicine. Good thing it wasn't Penn State. We play them Saturday. I would have had to grill you much more. Travis Tygart, CEO, U.S. Anti-Doping Agency; Dr. Sheila Lyons, DVM, founder and director of American College of Veterinary Sports Medicine and Rehabilitation; and Wayne Pacelle, Chief Executive Officer and President Humane Society of the United States. Thank you all for taking your time to share your wisdom with us today.

Mr. Overton, you will have 5 minutes.

Mr. WAXMAN. Mr. Terry?

Mr. TERRY. Yes?

Mr. WAXMAN. Before he starts, I just want to welcome all the witnesses. I do have a statement I want to put in the record in support of the effort to stop the inhumane practices relating——

Mr. TERRY. Without objection.

[The information follows:]

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS

Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115

Majority (202) 225-2927
Minority (202) 225-3641

Statement of Rep. Henry A. Waxman
Ranking Member, Committee on Energy and Commerce
Hearing on "H.R. 2012, a bill to improve the integrity and safety of interstate horseracing, and for other purposes"
Subcommittee on Commerce, Manufacturing, and Trade
November 21, 2013

Today the Subcommittee examines H.R. 2012, a bill aiming to bring needed reform to horse racing in the United States.

Concerns have been raised for decades about the use of drugs in horse racing. These concerns stem from both safety and sports integrity standpoints. Recent examinations have shed light on many practices taking place at America's racetracks and stables, including the prevalent use of both legal and illegal drugs.

For example, a 2012 investigation by *The New York Times* revealed that an average of 24 horses per week suffer fatal injuries at U.S. tracks – many more, per capita, than in other nations. While several factors play a role in this disparity, we must acknowledge that U.S. horse trainers have been caught administering illegal drugs 3,800 times since 2009. And the true number of violations is far higher, because not all horses are being tested. Cocaine, cobra venom, and, most recently, dermorphin – a potent painkiller drawn from South American tree frogs – are among the illegal substances found to have been used by U.S. trainers, some of whom have racked up drug violations across several states.

Legal drugs also contribute to fatal injuries. Popular anti-inflammatory medications pose a considerable threat to horses, as these drugs can mask the pain associated with serious musculoskeletal disorders. As we have seen repeatedly, when a horse falls, all competitors – both horses and humans are at risk.

Several states have taken it upon themselves to institute race-day drug bans. In addition, eight states have begun to work across state lines to promote common medication and testing standards, with another 10 states considering joining those efforts.

Unfortunately, these steps are not sufficient to fully address the problem. Horseracing is only as strong as its weakest link, and with 38 separate state commissions, the sport has little power to prevent violators in one state from repeating their behavior in another. I am also

concerned that we have the same individuals promoting and policing horse racing at the same time.

The bill we are considering today would charge the U.S. Anti-Doping Agency, or USADA, with developing and enforcing uniform standards for races with interstate, off-track wagers. H.R. 2012 would ban the use of all medication 24 hours prior to a race, give USADA the authority to decide what drugs are permitted and prohibited, and establish strict penalties for violations of the rules.

USADA is a highly capable, independent organization known for facilitating a transparent, democratic standard-setting process. And through its work in Olympic sports, cycling, and other venues, it has proven itself a tough and fair enforcer of anti-doping rules.

Having an independent commission with a national scope and a mandate to develop and enforce rules seems like a sensible approach, and I look forward to today's hearing to understand better how it could work.

Ultimately, meaningful reform in horse racing comes down to a concerted decision to uphold the fairness of competition and the safety of all involved. I hope this hearing moves us in the right direction.

Thank you.

Mr. TERRY. So each of you will have 5 minutes. There is a little sign up here you can glance up to. The 1-minute mark will be a yellow slash, and that means start wrapping it up. Five minutes-ish, I will start tapping the gavel to let you know to wrap it up.

Mr. Overton, you are now recognized for 5 minutes.

STATEMENTS OF JESSE M. OVERTON, CHAIRMAN, SKYLEARN, INC, AND FORMER CHAIRMAN, MINNESOTA RACING COMMISSION; PHILIP HANRAHAN, CHIEF EXECUTIVE OFFICER, NATIONAL HORSEMEN'S BENEVOLENT AND PROTECTIVE ASSOCIATION; LAWRENCE R. SOMA, PROFESSOR EMERITUS OF ANESTHESIA AND CLINICAL PHARMACOLOGY, UNIVERSITY OF PENNSYLVANIA SCHOOL OF VETERINARY MEDICINE; TRAVIS T. TYGART, CHIEF EXECUTIVE OFFICER, U.S. ANTI—DOPING AGENCY; SHEILA LYONS, FOUNDER AND DIRECTOR, AMERICAN COLLEGE OF VETERINARY SPORTS MEDICINE AND REHABILITATION; AND WAYNE PACELLE, PRESIDENT AND CHIEF EXECUTIVE OFFICER, HUMANE SOCIETY OF THE UNITED STATES

STATEMENT OF JESSE M. OVERTON

Mr. OVERTON. Thank you very much, Mr. Chairman, Ranking Member Mr. Sarbanes, and members of the subcommittee. Thank you for this opportunity to share my thoughts and experiences regarding the painful truth about drugging of race horses, the current challenges with medication rules and the need for H.R. 2012 to reform drug use in U.S. racing.

I was appointed by Governor Tim Pawlenty to a 5 ½-year term on the Minnesota Racing Commission, with the last 2 ½ years of my service during the tenure of Governor Mark Dayton. While I no longer serve in an official capacity, my experiences serving on the racing commission makes me a strong supporter of H.R. 2012.

Minnesota, like every racing jurisdiction in North America, is faced with multiple challenges, not least of which is the establishment and enforcement of uniform regulations in racing. Specifically, it was my role as a racing commissioner to work toward a reduction in the number of medication violations through better testing and serious enforcement protocols. During my tenure, the commission established stricter medication rules and employed a modern drug testing lab. Trainers, in honest, frequently race their horses in multiple States. So keeping up with various drug requirements and withdrawal times is a daunting task. And with winning as an overarching goal, some trainers race in States with more lenient medication rules. In fact, Minnesota's stricter medication and enforcement rules resulted in some horsemen electing not to return to Minnesota when we improved our medication testing.

It is my strong belief that if integrity is not the fundamental undepending of horseracing as both a sport and a gaming operation, it is destined to failure. Horseracing involves the Government, gaming operators, racetrack owners and horsemen. Racehorse owners and veterinarians are supporting players. In my experience, some of the industry's groups challenge the integrity of the sport. They will say there are few or no problems either with the use of drugs or with the enforcement against those who do not comply

with the regulation. This is simply not true. There is an inherent problem with the model consisting of 38 separate regulatory entities and many industry interest groups, all believing that they are in charge. The fact is there is little coordination among racing commissions, industry groups at the State and interstate level. And with so many cooks in the kitchen, there is confusion, conflict and chaos in medication regulations.

This is a perfect environment for those who can't keep up with the rules or those who chose to improperly or illegally medicate horses to take advantage of the disorganization. As a racing commissioner, I will stand by the length some trainers will go to win races. As you will hear from other witnesses, there is no drug or compound that has not been tried in horses, from EPO, antibiotical steroids, to frog juice and cobra venom. And I promise, there are chemists right now working up new, illegal, undetectable substances to give a trainer who wants a performance advantage, especially if he or she does not have the fastest horse.

Unless drug testing is conducted uniformly and in state-of-the-art laboratories, unscrupulous horsemen will continue to cheat the system for horses and the fans. I have attended many meetings of racing consortia and regulatory to find a common regulatory paradigm within which all racing jurisdictions must comply. But as long as there are 38 separate jurisdictions, this goal is impossible to obtain despite decades of sincere people's best efforts.

While multiple States have adopted racing compacts to align medication requirements, the fact is the enforcement of these compacts will vary from State to State as no single entity has authority to enforce in more than one State. The approach is varied. The outcome is the same. Unlike other professional sports like football, baseball, there is a central authority. No consistency in lab capabilities, no uniform penalties, no dedicated funding to increase lab testing, nor conduct research to catch the next magic potion illegally administered to horses. H.R. 2012 and a new authority will provide, through the U.S. Anti-Doping Agency, USADA, would establish a single drug testing body by virtue of a strong and consistent enforcement regulation. Through the enactment of H.R. 2012, all racing commissions would work in cooperation with USADA to strengthen and clean the competition policies and provide uniform medication testing.

Thank you very much, Mr. Chairman, and members of the subcommittee.

[The prepared statement of Mr. Overton follows:]

Testimony before the Subcommittee on Commerce, Manufacturing and Trade

"H.R. 2012 Bill to Improve the Integrity and Safety of Horseracing Act"

Jesse M. Overton
Thursday, November 21, 2013
10:00 am
2322 Rayburn House Office Building

Mr. Chairman, Ranking Member Schakowsky and Members of the Subcommittee, thank you for this opportunity to share my thoughts and experiences regarding the painful truth about drugging of racehorses, the current challenges with medication rules and the need for HR 2012 to reform drug use in U.S. racing.

My name is Jesse M. Overton. In 2007, I was appointed by Governor Tim Pawlenty to a 6 year term on the Minnesota Racing Commission, with the last two and half years of my service during the tenure of Governor Mark Dayton. While I no longer serve in an official capacity, my experience serving as a racing commissioner makes me a strong supporter of H.R. 2012.

The mission of the Minnesota Racing Commission is to protect the participants in the sport of horse racing, including horses, riders or drivers, owners, and fans, from harm that can occur through negligence or deliberate mistreatment of horses. This includes compliance with state and federal guidelines regarding equine transport and infectious diseases, protecting horses from abuse and neglect, preventing the use of illegal medications, minimizing race related injuries and accidents to horses as well as riders and drivers, and ensuring consistent equine performances.

Minnesota, like every racing jurisdiction in North America is faced with multiple challenges, not least of which is the establishment and enforcement of uniform regulations in racing.
Specifically, it was my role as a racing commissioner to work towards a reduction in the number of medication violations through better testing and serious enforcement protocols. During my tenure, the Commission established stricter medication rules and employed a modern drug

testing lab. The results are gratifying as the number of violations has dropped dramatically to a 99.5% compliance rate.

I am proud of the improvements made in Minnesota, but my state's rules don't affect rules or enforcement in the other 37 states which are often different or in conflict with Minnesota's rules. Trainers and owners frequently race their horses in multiple states, so keeping up with various drug requirements and withdrawal times is a daunting task. And with winning as the overarching goal, some trainers race in states with more lenient medication rules. In fact, Minnesota's stricter medication and enforcement rules resulted in some horsemen electing not to return to Minnesota when we improved our medication testing.

It is my strong belief that if integrity is not the fundamental underpinning of horseracing as both a sport and a gaming operation, it is destined for failure. Horseracing involves the government, gaming operators, racetrack owners and horsemen. Racehorse owners and veterinarians are supporting players. In my experience, some of these industry groups challenge the integrity of the sport. They will say there are few or no problems either with the use of drugs or with the enforcement against those who do not comply with the regulations. This is simply not true. There is an inherent problem with a model consisting of 38 separate regulatory entities and many industry interest groups all believing they're in charge. The fact is, there is little coordination among racing commissions and industry groups at the state and interstate level. And with so many 'cooks in the kitchen', there is confusion, conflicts and chaos in medication regulation. This is a perfect environment for those who can't keep up with the rules or those who choose to improperly or illegally medicate horses to take advantage of the disorganization.

As a racing commissioner, I was stunned by the lengths some trainers will go to win races. As you will hear from other witnesses, there is no drug or compound that has not been tried in horses, from EPO and anabolic steroids to frog juice and cobra venom. And I promise there are chemists right now working up new, illegal, undetectable substances to give a trainer who wants a performance advantage, especially if he doesn't have the fastest horse. Unless drug testing is conducted uniformly and in state-of-the-art laboratories, unscrupulous horsemen will continue to cheat the system, the horses and the fans.

I have attended many meetings of racing consortia and regulators to find a common regulatory paradigm within which all racing jurisdictions must comply, but as long as there are 38 separate jurisdictions, this goal is impossible to attain despite decades of sincere people's best efforts. While multiple states have adopted racing compacts to align medication requirements, the fact is, the enforcement of these compacts will vary from state to state as no single entity has authority to enforce in more than one state. The approaches vary; the outcome is the same. Unlike other professional sports, like football and baseball, there is no central authority; no consistency in lab capabilities; no uniform penalties; no dedicated funding to increase lab testing nor conduct research to catch the next magic potion illegally administered to horses.

HR 2012 and the new authority it would provide, through the U.S Anti-Doping Agency (USADA) would establish a single drug-testing body. By virtue of strong, consistent, enforceable regulations, it would eliminate cheating. By dedicating a fraction of 1% of the dollars wagered on racing to fund the testing and the research, trainers will be allowed to

operate with one set of regulations to follow. Unscrupulous trainers will be penalized heavily and the most unsavory will be driven out of the game.

Through enactment of HR 2012, all racing commissions would work in cooperation with USADA to strengthen clean competition policies and provide uniformity in medication testing. HR 2010 would:

- Put an end to race day medication;
- Set a harmonized medication policy framework for all races with interstate simulcast wagering;
- Ensure that the administration of racehorse drugs comply with veterinary ethics.

In closing, the adoption of H.R. 2012 will ensure uniform rules of medication usage, testing, security and enforcement by all industry participants. By virtue of strong, consistent, enforceable regulations, it would eliminate cheating. By dedicating a fraction of 1% of the dollars wagered on racing to fund the testing and the research, trainers will be allowed to operate with one set of regulations instead of 38. Unscrupulous trainers will be penalized heavily and the mot unsavory will be driven out of the game. And it will unite the industry stakeholders in their efforts to reduce the injury rate of horses and win back the public's confidence in the exciting and beautiful sport.

Thank you, Mr. Chairman and members of the subcommittee.

Key References

- Minnesota Racing Commission Annual Report 2010, 2011and 2012
- Commission Veterinarian's Report Dr. Lynn Hovda, DVM 2011 and 2012
- 61st Annual Round Table Conference On matters Pertaining to Racing 2013
- Mark Ford, Richard Banca, John Brennan, George Casale, and Standardbred Owners Association, Inc against The New York State Racing and Wagering Board August 15, 2011.
- Integrity of Racing Faces Challenges Kevin Murphy ORI, International 2013
- A History of Drugs in Racing. May 3, 2013
- Racing Medication & Testing Consortium (RMTC) Rules 2013
- World Rules for Equine Drug testing and Therapeutic Medication Regulation 2012 Policy of the National
- Horsemen's Benevolent and Protective Association, Inc. Thomas Tobin, Kimberly Brewer, and Kent H. Stirling
- New York Supreme Court Decision August 18, 2011

  Judged in favor of Standardbred racing Association
  vs.
  New York Racing and Wagering Board

Mr. TERRY. Thank you, Mr. Overton. Now, Mr. Hanrahan, you are recognized for 5 minutes.

STATEMENT OF PHILIP HANRAHAN

Mr. HANRAHAN. Thank you, Mr. Chairman. I am the CEO of the National Horsemen's Benevolent and Protective Association. The NHBPA is the largest organization in the United States representing owners and trainers in thoroughbred horseracing. We have approximately 29,000 members in the United States and Canada.

Let me start by stating unequivocally the NHBPA's position on medication. Owners and trainers who cheat by administering drugs that have no legitimate use in horses in attempt to influence the outcome of race should, after due process, be kicked out of horseracing. The use of dermorphin is doping plain and simple, so too is blood doping, gene doping and other narcotics.

However, let me quickly add, data compiled by State racing authorities shows conclusively that doping of thoroughbred horses in the United States is extremely rare. In the United States, two horses are tested every race. During the 4-year period from 2009 through 2012, there were more than 360,000 post-race tests of blood and urine. Only 142 tests—I say again, 142 tests—were positive for doping substances. More than 99.9 percent of all tests showed no doping substances were present. The NHBPA, however, draws a clear distinction between illegal doping and lawful therapeutic medication administered by licensed veterinarians.

The HBPA supports the continued use of Lasix and other therapeutic medications because they are necessary for the health and welfare of horses and reduce the risk of injury to jockeys.

Now, turning to H.R. 2012, the NHBPA opposes its enactment because it attempts to address a problem that does not exist, and purports to do so by employing USADA which has neither the experience in horseracing nor the resources to regulate medication in the horseracing industry. Medication rules and machinery for their enforcement already exists in every racing State.

News reports claim rampant use of illegal drugs that State regulators are ignoring. A look at the State regulatory data shows such claims are not true. Data for the most recent 4-year period shows more than 99.9 percent of the hundreds of thousands of post-race tests were negative for doping. Likewise, more than 99.2 percent of tests were negative for therapeutic medication remaining in a horse on race day.

Despite this objective evidence demonstrating there is no widespread misuse in medication in thoroughbred racing, some industry voices have called for a ban on all medication. Those who do so labor under the erroneous belief that race day medication is routinely permitted and that it causes injuries to horses. That is not true. The only race day medication allowed in the U.S., with minor exception, is Lasix. Unfortunately, Lasix, which H.R. 2012 bans, has become the poster child for those arguing in favor of a ban on all medication and has obscured scientific and medical facts about Lasix, including the following.

Running hard causes nearly all horses to bleed in their lungs and can cause instant death on the racetrack. One of my co-panelists,

Dr. Larry Soma, published research documenting the racetrack deaths of horses due to bleeding in the lungs. Lasix prevents and lessens bleeding, and is the only medication that does so. Lasix is not performance enhancing. It does not make a horse run faster than its God-given natural talent.

A landmark 2009 study in South Africa of 167 thoroughbred horses and racetrack conditions conclusively proved the effectiveness of Lasix in preventing and lessening the severity of bleeding. It is wrong to claim without any empirical evidence that fatalities are caused by permissive drug use. Last year's New York report on racehorse health and safety noted breakdowns at aqueduct occurred for a multitude of reasons having little to do with medication.

While the NHBPA opposes H.R. 2012, we do recognize the utility of uniform medication rules. Medication use, post-race testing thresholds and penalties often vary from State to State. For that reason, the NHBPA is continuing to work with the Association of Racing Commissioners International on drafting uniform model rules. Nine States in the mid-Atlantic have taken the lead in approved uniform medication rules. Eleven others are currently considering adopting those rules. We have high regard for USADA's efforts in policing illegal drug use in human sports competition. But the organization has no experience in equine veterinary science or the horse industry.

In short, H.R. 2012 is not needed. The job is already being done. Thank you, Mr. Chairman.

[The prepared statement of Mr. Hanrahan follows:]

National Horsemen's Benevolent & Protective Association
870 Corporate Drive, Ste. 300
Lexington, KY 40503-5419
(859) 259-0451

Written Statement of Philip Hanrahan, Chief Executive Officer of the National Horsemen's Benevolent and Protective Association, before the United States House of Representatives Energy and Commerce Committee, Subcommittee on Commerce, Manufacturing and Trade, regarding "H.R. 2012, a bill to improve the integrity and safety of interstate racing and for other purposes."

Mr. Chairman and other distinguished members of the Committee, I appreciate having this opportunity to testify today on behalf of the National Horsemen's Benevolent and Protective Association ("NHBPA"). The NHBPA, based in Lexington, Kentucky, has been representing the interests of thoroughbred horse owners and trainers racing in North America since 1940. There are over 29,000 owner and trainer members of the NHBPA throughout the United States and Canada focused on a twofold common goal: safe and fair horse racing on all levels and an unwavering commitment to the well being of race horses.

The NHBPA has 29 affiliates across the United States and Canada, including: Alabama, Arizona, Arkansas, British Columbia, Charles Town, WV, Colorado, Finger Lakes, NY, Florida, Idaho, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Minnesota, Montana, Mountaineer Park, WV, Nebraska, New England, Ohio, Oklahoma, Ontario, Oregon, Pennsylvania, Tampa Bay, FL, Texas, Virginia and Washington. Membership is open without restriction to all owners and trainers licensed by state racing authorities. From 2009 through 2011 owners spent over $2 billion to purchase race horses. They spent on average an additional $25,000 annually for the training and care of each horse.

The leadership of the NHBPA and its affiliates is democratically elected by the members. Ours is the largest organization in the United States representing owners and trainers of thoroughbred race horses. Other organizations that purport to speak for thoroughbred owners and trainers are not as representative or as inclusive as the NHBPA. The Jockey Club, headquartered in New York, is an invitation only organization that has approximately 100 members. The Thoroughbred Owners & Breeders Association ("TOBA"), located in Kentucky, has about 2,500 members, most of whom are horse breeders.

The NHBPA believes it helpful to again unequivocally and publically state its position on racing medication. The use of performance enhancing drugs has no place in horse racing. Owners and trainers who after a fair hearing are found to have cheated by administering drugs that have no legitimate therapeutic use in horses should be expelled from horse racing. Dermorphin, an opiate like substance derived from the skin of a South American frog that has been the subject of recent publicity, is one such drug. Blood doping, gene doping, and narcotics are other examples. Their intentional use is doping, and all doping should be penalized severely.

However, the NHBPA draws a clear distinction between illegal doping and lawful therapeutic medication that has long been used in horse racing by licensed veterinarians to maintain the health of racing horses and to treat injuries when they occur. Therapeutic medication, like furosemide (commonly called "Lasix") that acts to prevent and mitigate pulmonary hemorrhaging ("bleeding in the lungs") during racing, is necessary to keep a horse healthy and reduce the risk of injury to horse and jockey. Lasix use is not doping, and no one can reasonably conclude otherwise. Its use is safe and has been routinely administered by veterinarians for the past 40 years in their treatment of horses. Moreover, Lasix use is transparent to the public. In racing programs it is noted with "L" beside a horse's name.

The NHBPA supports the continued use of Lasix on race day and the use before race day of other recognized therapeutic medications like phenylbutazone, an anti-inflammatory equivalent to aspirin used by humans. We further support the application of science based medication thresholds to post race test samples to ensure that on race day no effective trace of therapeutic medication remains in a horse's system.

Turning to H.R. 2012, the NHBPA opposes its enactment because the bill attempts to address a problem that in reality does not exist, and purports to do so by employing an organization, the United States Anti-Doping Agency ("USADA"), which has neither the experience nor the resources to carry out a legislatively assigned task of regulating medication in the horse racing industry.

Medication rules and provisions for their enforcement, which H.R. 2012 seeks to create and implement on the federal level, already exist in every state that has horse racing with pari-mutuel wagering. Any asserted problem is one of misperception caused by recurrent sensationalism in the public media. News reports claim there is rampant illegal use of drugs in horse racing that state regulatory bodies are ignoring. However, an analysis of regulatory data in thoroughbred racing states shows that such assertions are flat out wrong.

Horse racing in the United States spends about $35 million a year on race day testing of horses. Racing has the longest in place and most comprehensive testing program of any sport in the world, and employs the most sophisticated and sensitive equipment found anywhere. In contrast, USADA, which conducts testing in human sports, stated in its 2012 annual report that it spent approximately $7.5 million on testing.

From 2009 through 2012, according to data maintained by The Jockey Club and data compiled by the Association of Racing Commissioners International from state racing commission records, 99.2% of 368,980 post race drug tests in thoroughbred races were negative for drug use. That rate of "clean tests" by no stretch of the imagination evidences a problem of rampant unregulated drug use. Quite to the contrary those results should be the envy of every other sport that tests for drugs.

In the 2009-2012 time frame there were some positive test results, but only a handful (142 out of 368,980 tests, or 3/100ths of 1%) were for illegal substances like dermorphin that serve no purpose other than to dope a horse to affect the outcome of a race. The vast majority of other positive results were for trace overages of lawful therapeutic medication, like common

anti-inflammatory drugs similar to Aspirin, Advil, and Aleve used in human sports. (The World Anti-Doping Agency does not prohibit use of non-steroidal anti-inflammatory drugs during competition because they are performance enabling, not performance enhancing.)

The following chart summarizes testing results for the 2009-2012 period. Class 1 and 2 positives, classified as such by the Association of Racing Commissioners International, are "cheater" drugs or "doping". Those drugs have the highest potential for affecting performance and have no generally accepted therapeutic medical use in race horses. Class 3, 4, and 5 positives, on the other hand, generally indicate overages of therapeutic medication permitted before race day. Furosemide (Lasix) is administered on race day to prevent and minimize bleeding in the lungs.

By regulation in every state therapeutic medications may be used in the days preceding a race, but not on race day, and have little or no likelihood of affecting performance. "No effect" threshold limits for therapeutics are set by state racing commissions so that on race day no horse is under the influence of any therapeutic medication, except for the race day use of Lasix.

Racing Medication Violation Data
2009-2012

State	Races	Starts	Avg. Field	Drug tests	Class 1	Class 2	Class 3	Class 4	Class 5	Furosemide	% Neg.	% Pos.
Arizona	6174	48685	7.88	12348	1	6	21	73	0	1	99.16	0.83
Arkansas	2051	18729	9.13	4102	2	0	1	14	0	6	99.44	0.56
California	17433	131019	7.51	34866	4	1	47	163	0	7	99.37	0.63
Delaware	3640	26889	7.38	7280	0	0	19	41	1	0	99.17	0.83
Florida	13255	113767	8.58	26510	0	3	44	151	15	1	99.19	0.81
Iowa	2443	18559	7.59	4886	2	0	1	1	0	0	99.92	0.08
Illinois	9010	72736	8.07	18020	0	5	28	72	1	14	99.34	0.66
Indiana	4388	37489	8.54	8776	1	0	11	28	0	10	99.44	0.56
Kentucky	8495	74081	8.72	16990	1	9	34	84	32	8	99.02	0.98
Louisiana	13692	123998	9.05	27384	11	2	30	328	2	22	98.57	1.43
Mass.	3255	25698	7.89	6510	0	3	7	5	0	0	99.77	0.23
Maryland	5627	43359	7.7	11254	0	2	10	21	3	4	99.65	0.35
Michigan	1619	11271	6.96	3238	0	0	0	12	0	0	99.55	0.45
Minnesota	1876	14581	7.77	3752	0	3	19	188	0	2	94.35	5.65
N. Dakota	331	2438	7.36	662	0	0	1	18	0	1	96.88	3.02
Nebraska	3278	26346	8.03	6556	4	0	33	70	0	0	98.37	1.63
NJ	3872	31155	8.04	7744	0	0	5	6	0	3	99.72	0.18
NM	6916	57062	8.25	13832	9	4	20	41	0	14	99.37	0.63
Nevada	162	806	4.97	324	0	0	0	3	0	0	99.08	0.92
New York	15037	116417	7.74	30074	0	3	16	27	0	6	99.83	0.17
Ohio	10458	78507	7.5	20916	0	5	29	176	44	12	98.73	1.27

Oklahoma	4560	42875	9.4	9120	22	0	8	55	2	4	99.01	0.99
Oregon	2993	21323	7.12	5986	0	1	2	54	0	2	99.02	0.98
PA	18027	145172	8.05	36054	9	10	29	227	5	40	99.12	0.88
Texas	4598	40494	8.8	9196	5	12	17	66	11	19	98.59	1.41
Virginia	1554	13018	8.37	3108	0	1	5	12	1	0	99.39	0.61
Wash.	3250	22410	6.89	6500	0	0	0	4	0	1	99.93	0.07
WV	16496	138323	8.38	32992	0	1	17	124	0	0	99.57	0.43
TOTAL	**184,490**	**1,497,207**	**8.11**	**368,980**	**71**	**71**	**454**	**2,064**	**117**	**177**	**99.2**	**0.8**

Clearly the state racing commission data above disproves dramatic allegations of widespread drug misuse. It also demonstrates that race day administration of Lasix is well regulated, with only 177 instances (0.04 or 4/100ths of 1%) in four years where Lasix was administered in an incorrect dosage or too close to post time. Even so, to avoid the appearance of any impropriety the National HBPA believes only state regulatory veterinarians, and not private veterinarians, should be permitted to administer Lasix on race day.

Unfortunately race day Lasix use, which H.R. 2012 ultimately prohibits, is being swept up in the hysteria over alleged doping of horses with illegal drugs, aided and abetted by individuals and organizations that should know better. Media reports calling for a ban on race day medication blur the line between what is permitted on race day (Lasix) and that which is not (all other therapeutic medication). This has obscured some basic scientific and medical facts, ignored by H.R. 2012, supporting continued use of Lasix:

- The extreme physical stress of hard running causes nearly all horses to bleed in their lungs, some more severely than others. Bleeding robs horses of oxygen, causes progressive and irreversible scarring in the lungs, makes breathing more difficult, and can cause instant death on the race track and endanger jockeys. (See attached: *Sudden death attributable to exercise-induced pulmonary hemorrhage in racehorses: Nine cases (1981-1983),* Diane E. Gunson, BVSc; Corinne Raphel Sweeney, DVM; Lawrence R. Soma, VMD)

- Nearly all bleeding remains internal and is only detectable by endoscopic examination. Detection by an externally visible nose bleed is the rare exception, but is usually the standard in Europe and Asia for determining whether a horse is a "bleeder."

- Lasix prevents and lessens bleeding. It is safe and has been used effectively for nearly forty years. Its regulated use does not prevent the post-race detection of other drugs. Similarly, research demonstrates Lasix does not cause a loss of bone density in horses leading to breakdowns.

- Lasix is not performance enhancing. It does not make a horse run faster than its natural talent. On the other hand, bleeding does make a horse run slower and can stop it outright.

Those individuals and organizations supporting federal regulation of racing medication often say we should emulate European racing, which they claim prohibits all drug use. That is not true. For example, horsemen in Britain are allowed to and do administer the same therapeutic medication used by American horsemen, including Lasix. The main difference in medication policy between the United States and Britain (as well as the rest of Europe) is the timing of Lasix use. In Britain Lasix is used in daily training to prevent or lessen pulmonary hemorrhaging, but not on race day. From a horse welfare standpoint that makes no sense. No one disputes that Lasix prevents injuries and fatalities in race horses and reduces risks for jockeys. Why not use it on race day when those risks are heightened?

On race day horses in Britain, like those in America (except for Lasix), may not compete under the influence of active medication. In the U.S. and Britain drug concentration thresholds are set to make sure lawful therapeutic medication used during training in the days that precede a race has no pharmacologic effect on race day. The British Horseracing Authority (BHA) uses post race testing, like we do, to ensure that is so.

The following chart, comparing four years of post race testing in Britain (based on the most recent data published by BHA) with the above data compiled by the Association of Racing Commissioners International, shows no significant difference in drug positive results between the two countries. Both are essentially drug free.

	Starts	Tests	Negative	Positive
Britain (2005-08)	381,002	36,511	99.86%	0.14%
United States (2009-12)	1,497,207	368,980	99.20%	0.80 %

The slight variance between countries may be accounted for by the fact that less than 10% of British starters are tested while the U.S. tests around 25% of all starters, and the U.S. has four times the number of starts. Also, the British select a single horse for post race testing subjectively based on performance in a race or "intelligence" available to the race stewards. In the U.S. selection in each race of two horses for testing is more or less random at the outset, ultimately including the winner and another horse selected by the stewards. In Britain only urine is routinely tested while in the U.S. both urine and blood are examined, with blood being the more accurate indicator of the presence of medication.

Advocates for British racing also point to the lower fatality, or breakdown rate, of horses racing in Britain compared to our horse industry experience. They claim, without any empirical evidence, that our higher fatality rate is caused by permissive drug use in U.S. racing. But as we have shown there is very little difference in medication policy, race day Lasix aside.

No one abhors racing fatalities more than the owners and trainers of those horses. We believe the cause of breakdowns in our industry is multi-faceted. Studies must continue to find ways to lessen fatalities. My personal view is that racing surfaces are a major cause of breakdowns (i.e., musculoskeletal injuries). In the U.S. most of our racing is on "dirt" tracks (actually a sand, clay, and loam mixture), many of which are hard, uneven, and inconsistent. It is not unusual to hear a horse took a "bad step" and was injured. Racing in Britain, on the other

hand, is on grass and to a lesser extent on artificial surfaces like polytrack, both of which are much easier on a horse because those surfaces provide more cushion for striking hooves and are more consistent. Horses in Britain also race fewer times annually than their American counterparts.

While the National HBPA opposes enactment of H.R. 2012 because it is unnecessary we do recognize the utility of uniform medication rules among the racing states. Medication use, post race thresholds, and penalties often vary from state to state. That makes it very challenging for owners and trainers in a mobile nation-wide industry, for example racing one week in Maryland and the next in Kentucky, to comply with different sets of rules. For that reason we are continuing to work with the Association of Racing Commissioners International on drafting model medication rules to recommend to the various racing jurisdictions. Nine states in the Mid-Atlantic including Delaware, Maryland, Virginia, Pennsylvania, New York, New Jersey, and West Virginia have taken the lead and have already approved uniform rules for medication regulation, enforcement, and laboratory testing like those drafted by ARCI. The same rules and procedures are currently under consideration in Arkansas, California, Florida, Idaho, Illinois, Indiana, Kentucky, Minnesota, New Mexico, Ohio, and Wyoming.

Significantly, ARCI's model rules, as well as those adopted in the Mid-Atlantic, permit Lasix use on race day. That is because scientific studies prove the efficacy of Lasix in treating exercise induced pulmonary hemorrhaging ("EIPH"), evidenced recently in the 2009 definitive South African study conducted by an international team of researchers, funded in part by The Jockey Club. (See attached)

The American Association of Equine Practitioners (AAEP) has also publically stated its support for Lasix noting that *"EIPH increases with age and exercise. One of the true values of furosemide* [Lasix] *is that the medication can be used to diminish or modulate the progressive pathologic change in the lungs that leads to repetitive bleeding.* (See attached)

The AAEP warns what is likely to happen if Lasix is not permitted on race day:

> *The racing industry should anticipate that other methods will be employed to reduce the incidence of EIPH if a race-day ban on Lasix is instituted. The practice of withholding food and water from the horse in the days leading up to a race should be expected. As doctors of veterinary medicine we believe that the detriments of withholding food and water to the health and welfare of the horse outweigh the current concerns about race-day Lasix administration.*
>
> *The racing industry should also expect that unproven and perhaps undetectable products will be used in an attempt to alleviate EIPH on race day. Some of these products may include, but are not limited to, herbal remedies, nutraceuticals, and compounded medications that are not approved for use in the horse and have no scientific merit or efficacy in treating EIPH. The potential harmful side effects of these products to the horse are a serious concern.*

In short, the NHBPA submits there is no need for the federal government to reinvent the wheel by designating USADA to write and enforce uniform medication rules, particularly with a legislative fiat to ban Lasix. We have high regard for USADA's efforts in policing illegal drug use in human sports competition, but that organization has no expertise in equine veterinary science or experience in the horse racing industry of which we are aware. It would likely take USADA years to gain that knowledge and would require spending millions of dollars, in the long run most likely coming out of the pockets of horse owners and trainers, to create the infrastructure to write rules, to test horses racing across the country in over 45,000 races a year, and conduct enforcement proceedings for violations found. We note that in the 2009-2012 period charted above state racing regulators tested around 368,980 horses. During the same four year period USADA, according to its website, tested 33,309 human athletes, or less than 10% of the number of tests conducted by state racing commissions.

We conclude by stating our position regarding regulation of racing medication:

A) The National HBPA's focus has always been, and remains, the health and safety of the horse, the safety of the jockey, and the safety of all individuals coming into contact with the horse including grooms, hot walkers, trainers and veterinarians.

B) The National HBPA believes a truly independent and transparent Racing Medication and Testing Consortium ("RMTC") of industry stakeholders (including NHBPA, the Jockey Club, and TOBA, among others) not dominated by any individual organization, with input from appropriate medical and veterinary professional bodies such as the American Association of Equine Practitioners, must be the final evaluator of medical and veterinary science.

C) RMTC approved medication rules should be reviewed by the Association of Racing Commissioners International on behalf of state racing commissions, and following an evaluation based on science and medical research with all industry stakeholders being heard, the rules should be adopted or rejected by a majority vote.

D) Uniform medication rules must be based solely on published scientifically determined regulatory thresholds, with published scientifically determined withdrawal time guidelines, all based on and supported by data published in the scientific literature.

E) RMTC and ISO-17025 accredited laboratories should perform all medication testing.

F) Repeat offenders should be severely penalized, including permanent exclusion from the industry.

[Additional material from Mr. Hanrahan is available at http://cradmin.clerk.house.gov/repository/IF/IF17/20131121/101517/HHRG-113-IF17-Wstate-HanrahanP-20131121-U2.pdf and http://docs.house.gov/meetings/IF/IF17/20131121/101517/HHRG-113-IF17-Wstate-HanrahanP-20131121-U4.pdf.]

Mr. TERRY. Thank you. Now, Dr. Soma, you are recognized for 5 minutes.

STATEMENT OF LAWRENCE R. SOMA

Mr. SOMA. Good morning. I would like to review the progress that has been made in improving equine drug testing and some changes in the curtailment of use of certain drugs.

Prior to 208, only 5 of the 18 U.S. racing laboratories were accredited through international standards, which are referred to as ISO–17025. As of June 13, 10 of the 16 laboratories are accredited. The laboratories that are accredited to these standards meet technical and quality management requirements. The standards require that laboratory to implement a quality assurance system aimed at demonstrating the ability to consistently produce valid test results starting from proper handling of incoming samples to reproducibility and accuracy of analytical results.

This is not a one-shot deal. Laboratories have to be reaccredited, and the onsite assessment of a laboratory is mandatory every 2 years. So an inspector comes in—goes through the laboratory and assesses their quality assurance capabilities.

The committee appointed by the Racing Medication and Testing Consortium was charged with developing a second accreditation program for the equine industry. This committee, which I was a member, developed a laboratory accreditation requirements and operating standards. The requirements for this level of accreditation are extensive and are guided by the requirements outlined by the U.S. Doping Agency laboratories. The committee basically started with this handbook and developed guidelines which can be used in the industry. The laboratory must participate in an external quality assurance program which requires analysis of proficiency samples. The laboratory must successfully identify and confirm and quantify the drug in blood and urine. The laboratory knows that the samples are coming but do not know what drug is in the blood or urine sample. The above requirements are important aspects of the program that determines if the laboratory has the capability, personnel and instrumentation required to detect substance of concern at the concentrations that are mandated by the industry.

The stated goal of this program is to ensure that all laboratories are operating at the same standard. The first type of accreditation indicates how well the laboratory is functioning, their data management. The second state tells you how the performance of that is, can you find certain drugs, and can they be confirmed in a reasonable timeframe?

National guidelines have also been published for the withdrawal time for 24 commonly used therapeutic drugs. This allows for the treatment of horses during training, if they are properly used. For example, progress has been made on the drug control front. Anabolic steroids have been banned from use in North America, and the injections of drugs into the equine joint has been regulated. As

a result of these regulations, injection of drugs into the joint really cannot be done before 7 days—the horse has to be medicated for 7 days before they allow the horse to run.

There is still a number of drugs which are problematic. One of the problems is certainly that Lasix is still allowed in the United States and Canada. Number two, there are many drugs out there which are difficult to find, and there is very, very little research in trying to attempt to find these drugs. Fortunately, the State of Pennsylvania does provide research funds through our laboratory to look at peptides, EPO type of drugs, and drugs which are very, very difficult to find on the current establishment lab. Even if you have a very good laboratory that can find hundreds of drugs in one screening, there are still drugs out there which we have not developed a method for. And these are protein based drugs. These are small peptides, like the morphine is a small peptides. These are drugs that are difficult to find. And I am sure there are many more coming along which the laboratories really need resources to improve their research capabilities.

But many laboratories have improved. Some laboratories have left because they could not meet these requirements. So as far as testing is concerned, I think there has been a great change over the last 5 years in improving this aspect of racing. Rules and regulation throughout the States is still a problem. Thank you.

[The prepared statement of Mr. Soma follows:]

Date: November 21, 2013

Testimony before the House of Representatives, Subcommittee on Commerce, Manufacturing, and Trade

Topic: Horseracing Integrity and Safety Act of 2013".

Presented by:

Lawrence R. Soma, VMD, DACVA

Professor Emeritus of Anesthesia and Clinical Pharmacology

University of Pennsylvania, School of Veterinary Medicine

New Bolton Center Campus, 382 West Street Rd

Kennett Square, PA 19348

Phone: 610-925-6265

e-mail: soma@vet.upenn.edu

Table of Content

1. Summary of Presentation

Progress in Racing Industry Laboratory Accreditation: Prior to 2008, only **5** of the 18 US Racing Laboratories were accredited to the ISO/IEC 17025 standard; as of June 2013, **10** of the 16 are accredited. Laboratories Accredited to ISO/IEC 17025 meet technical and quality management system requirements necessary to consistently deliver technically valid and legally defensible test results to the industry. These standards are globally recognized by Asian Pacific, European Union and Inter-American Accreditation Council; these Councils form the International Laboratory Accreditation Cooperation (ILAC). A committee appointed by the Racing Medication and Testing Consortium (RMTC) was charged with developing accreditation program for the Equine Racing Industry. This is in addition to, not a substitute for ISO/IEC 17025 international standards. The aim of the program was to further improve, upgrade and standardize the quality of analysis by equine laboratories and to assure that all laboratories have similar capabilities. This committee developed the "Laboratory Accreditation Requirements and Operating Standards". The requirements for this second level of accreditation are extensive and were guided by the requirements outlined by the U.S Anti-Doping Agency (USADA) laboratories. A major requirement is to successfully participate in External Quality Assurance Program and adhere to performance standards for a Drug and Medication Control Laboratory. To date, 8 racing laboratories are involved in some phase of the accreditation process and 2 laboratories have been accredited.

Progress has also been made on the drug control front. Anabolic steroids have been banned from use in North America and the intra-articular injection of the equine joint has been regulated the result is curtailment of injection close to race time. With the improvement in equipment, high through-put analytical methods have been developed allowing, for example, screening of 60 of anabolic and androgenic steroids in equine plasma. Similar methods have been developed for other drugs allowing for the screening of hundreds of drugs in each sample.

National guidelines were subsequently published by the RMTC which included the intra-articular injection of corticosteroids. Included in this list of drug were guidelines for withdrawal times for the use for 24 of commonly used therapeutic drugs. This allows for treatment of horses during training and if used properly should not be a violation on race day.

2. Accreditation of Racing Laboratories to ISO/IEC 17025:2005 Standards.

One of the first racing laboratories to become accredited by the American Association of Laboratory Accreditation (A2LA) was the Pennsylvania Equine Toxicology and Research Laboratory (PETRL) which is the official racing forensic laboratory for the Pennsylvania Horse and Harness Racing Commissions. The American Association for Laboratory Accreditation (A2LA) is a nonprofit, non-governmental, public service, accreditation organization. It provides requirements for the accreditation of all types of testing performed i.e.: chemical, mechanical, environmental, forensic and calibration laboratories, nationally and internationally. Chemical testing and calibration laboratories accredited by A2LA agree to adhere to the strict management system requirements of ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories* and A2LA's proficiency testing and record keeping requirements. Originally known as ISO/IEC Guide 25, ISO/IEC 17025 was initially issued by the International Organization for Standardization in 1999. Accreditation to ISO17025:2005 means a laboratory meets both the technical and quality management system requirements necessary to consistently deliver technically valid and legally defensible test results to clients. This standard is globally recognized by Asian Pacific, European Union and Inter-American Accreditation Council; these Councils form the International Laboratory Accreditation Cooperation (ILAC).

The standards require the laboratory to implement a quality assurance system aimed at demonstrating ability to consistently produce valid and defensible test results, starting from proper handling of incoming samples (maintaining verifiable chain of custody) to reproducibility and accuracy of analytical results. A2LA also requires internal audits by a designated quality assurance (QA) Officer of the laboratory. The QA Officer is expected to identify discrepancies from the laboratory's standard operating procedures (SOP), initiate corrective actions, and indicate opportunities to improve the reliability and reproducibility of testing. The laboratory is also expected to demonstrate on-going competency by regularly analyzing proficiency samples from an accredited or approved proficiency sample provider.

The Pennsylvania laboratory has been re-accredited yearly since 1997. Re-accreditation requires the submission of extensive records from the in-house systems that demonstrate proper quality control over all testing technologies. On-site re-assessments of the laboratory occur every other year. A 3-day inspection by A2LA assessor includes review of all the laboratory procedures and all documented quality control data. The assessor comments on deficiencies, issues a report and A2LA requires all deficiencies to be corrected by the laboratory and approved by a Re-Accreditation Council prior to re-accreditation of the laboratory.

Accreditation by A2LA is requested on a voluntary basis, there is no oversight organization that demands that the laboratory be accredited to conduct testing in the State of Pennsylvania. Fortunately, the PA Racing Commissions required and financially supports accreditation processes. More importantly, because of the size of the laboratory, number of forensic and research samples (> 40, 000) processed each year and the extensive research program a full time Quality Assurance Officer is on the staff as a full time employee.

In the last few years the stakeholders of the Racing Industry and the State Regulatory bodies have been pressing their respective laboratories to become accredited. Prior to 2008, only **5** of the 18 US Racing Laboratories serving racing jurisdictions were accredited to the ISO/IEC 17025 standard and as of June 2013, **10** of the 16 US Laboratories were accredited **(see Racing Medication and Testing Consortium (RMTC), website for updates (www.rmtcnet.com.).**

3. Additional Accreditation by the Equine Racing Industry: Laboratory Accreditation Requirements and Operating Standards

A committee appointed by the Racing Medication and Testing Consortium (RMTC) was charged with developing an accreditation program for the Equine Racing Industry. The aim of the program was to improve, upgrade and standardize the quality of analysis by equine laboratories and to assure that all laboratories have similar capabilities in the detection of drugs and a commitment to research. This committee developed the "Laboratory Accreditation Requirements and Operating Standards" **(see appendix 1)**. The requirements for this second level of accreditation are extensive and were guided by the requirements outlined by the U.S Anti-Doping Agency (USADA) laboratories.

To be accredited to the standards established by the RMTC, the laboratory shall maintain accreditation from the relevant accreditation body, to ISO/IEC 17025:2005. Additionally, the laboratories must successfully participate in the horse testing laboratory External Quality Assurance Program, which involves single-masked proficiency test samples. These are blood and urine samples, provided by an Accredited Proficiency Sample Provider, submitted to the laboratory for analysis. The laboratory must successfully identify, confirm, and/or quantify the drug in blood or urine sample. The laboratory knows that the samples are coming, but does not know the content of the blood or urine samples. Included in the set is a blank set containing no drugs. Participation in a double-masked program, is planned, but will not be required until such a program is provided by an accredited proficiency sample provider. The double-masked program differs from the single-masked in that the laboratory does not know that the sample has been shipped to the laboratory, as it is co-mingled with test samples from a race track. The PA Laboratory has had this double-masked program in place for the past 13 years and is administered by the QA officer.

The laboratory must meet all criteria of the (ISO/IEC 17025:2005) for accreditation as they apply to the analysis and reporting of results for equine racing blood and urine samples. The Laboratory shall also comply with the RMTC Code of Ethics, must screen a minimum number of samples per year, and maintain a research program committing at least 10% of the total annual budget to this area and document publication of results. An important part of this program is the sharing of information between laboratories and the laboratory must allow inspection by RMTC at any time.

The above requirements are but a few of the important aspects of the program that determine if laboratories have the capabilities, personnel and instrumentations required to detect substances of concern at the concentrations that are mandated by the racing industry. The stated goal of the RMTC accreditation and External Quality Assurance Program process is to ensure that all laboratories are operating at the same high standard of drug analysis. This consistency will foster uniformity and strengthen the integrity of racing and ensure the safety, health and welfare of all equine and participating human athletes.

4. Voluntary vs. Mandatory Programs

Accreditation of racing industry laboratories to the ISO/IEC 17025:2005 standard is voluntary; it is the responsibility of each State Racing Commission or Authority to insist on accreditation of the laboratory and provide the resources to initiate and maintain the accreditation. The accreditation to the RMTC developed standards is currently ongoing, is voluntary and at the request of each State Racing Commission or Authority. To date, 8 laboratories are involved in some phase of the accreditation process and 2 laboratories have been accredited by RMTC (**www.RMTCnet.com**.) Currently, the resources and personnel to provide proficiency samples, review the laboratory documentation, and conduct onsite inspection are being provided by the industry. Chemist analyzing the samples and personnel providing the proper documentation are resources provided by each laboratory. The process is not without a considerable amount of laboratory personnel time. If a laboratory fails, the consequences are; corrective action, root cause analysis and revocation of RMTC accreditation until RMTC determines that the laboratory can once again meet the accreditation standards.

5. Rules Regarding Medications.

At a hearing before the Subcommittee on Commerce, Trade, and Consumer Protection of the Committee on Energy and Commerce, held in June 2008, the topic of discussion was "Breeding, Drugs, and Breakdown: The State of Thoroughbred Horse Racing and the Welfare of Thoroughbred Racehorse". Medication issues were discussed in the session in the context of the welfare and safety of horses. The drugs in focus for the presentation were anabolic steroids, intra-articular (joint) injection of corticosteroids and administration of furosemide (Lasix™, Salix™). Progress has been made on the banning of the use of anabolic and androgenic steroids and curtailing the use of the intra-articular injection of corticosteroids into the equine joints. Analytical methods were developed for the detection, quantification and confirmation of anabolic and androgenic steroids in plasma, and the methods were published in 2005 and 2006 [1,2]. Studies were also conducted on the pharmacokinetics (elimination from the body) of 2 of the most commonly used anabolic steroids, boldenone and stanozolol [3]. High through-put multiple drug analytical methods have been developed, validated and published for use by other equine laboratories in their efforts to enforce the ban on anabolic and androgenic steroids in racehorses [4-8].

Administration of anabolic steroids was banned by the State of Pennsylvania and throughout the country in April 2008.

In June, 2009, the Pennsylvania Racing Commissions regulated the intra-articular injections of glueocorticoids, to no less than 7 days prior to race-day. National guidelines were subsequently published by the RMTC which included the intra-articular injeetion of corticosteroids initiated by the State of Pennsylvania. Included in this list of drug were guidelines for withdrawal from use for 24 of commonly used therapeutic drugs **(see appendix 2).** This would allow for treatment of horses during training and if used properly should not be a violation on race day.

6. Use of Furosemide (Lasix™, Salix™) for the treatment of Exercised Induced Pulmonary Hemorrhage (EIPH)

Furosemide has been used empirically and has been approved for many years by the racing industry for the management of exercise-induced pulmonary hemorrhage (EIPH) or "bleeding" in racehorses. Its use in horses for this purpose has been controversial and has been criticized by organizations outside and inside of the racing industry. North America is the only continent that allows the use of Lasix on race day. Many in the racing industry acknowledge that the administration of furosemide to racehorses is harming the breed. There is no scientific data to substantiate this perception, but unfortunately, perception become reality in the minds of many.

Despite the use of furosemide, horses continue to present blood in the trachea after exercise. No studies have shown a complete absence of blood from the trachea, in horses diagnosed with EIPH post-race or exercise, as a result of furosemide administration [9-15]. The majority of published reports indicate that furosemide does not prevent EIPH in horses.

7. Furosemide and Performance.

Literature available on this subject suggests that furosemide increases performance in horses without significantly changing the bleeding status. In a race track study conducted on Thoroughbred horses, there was an improvement in racing times in many horses after the administration of furosemide with similar observation in Standardbred horses [16-18]. In a population study of 22,589 Thoroughbred horses competing in US and Canada

with and without the pre-race administration of furosemide (Lasix) concluded that horses administered furosemide raced faster, earned more money, and were more likely to win or finish in the top 3 positions than horses that were not administered furosemide [19].

Results from treadmill studies indicated that the increase in speed was due to weight loss produced by the administration of furosemide and not by any specific stimulatory or direct effects on the horse. Thus, the sudden weight loss due to water loss induced by furosemide (Lasix) allowed the horse to run faster. This effect was reversed by the addition of the weight lost [20,21]. Others have also concluded that the reason for the increase in speed of the horse was the loss of weight due to the loss of body fluids produced by the administration of furosemide (Lasix) [22]. Replacing this weight loss negates the effect of its administration.

8. Comments on the Health, Safety and Welfare of Horses

A very basic element in the health, safety and welfare of the horse is the living and training environment of race tracks. Well-ventilated barns are essential in reducing dust in the environment that horses are exposed to on a daily basis, and reducing the transfer of communicable diseases when outbreaks occur. Dusty and poorly ventilated barn conditions contribute to pharyngitis, bronchitis and other respiratory disorders that can sideline a horse from competition. Track surfaces on which the horse train and compete is an issue that that has been discussed in great detail.

Funding for research in horse health, safety and welfare is limited to non-existent and yet the horse carries the burden and the responsibility of keeping us in the business of racing. The total annual economic impact of the horses and horse racing in many states is huge, yet the research on the health issues of one player upon which the weight of the industry rests is generally neglected. Other viable industries have vigorous research and development programs.

There are many health issues that can be addressed, but the ones outlined below can have the greatest short-term and long term economic impact on the racing industry. An area of greatest concern for short-time economic loss in the competing horse, are muscle and skeletal injuries and respiratory and airway diseases. Many of these conditions impact the well-being and prevent the horse from competing on a short-time basis. Conditions

that result in catastrophic economic loss and death in the horse are laminitis, gastro-intestinal emergencies, and catastrophic track injuries. Other areas of concern for maintaining the health and well-being of the horse are lack of good pain management in injured horses and the growing concern of antibiotic-resistant infections, as well as equine nutrition, reproduction, growth, and nutrient management. Maintaining the strength of the gene pool requires investigations into improvement of the longevity of breeding female and male horses and research into foal losses and sustaining pregnancy to term. Others can add to this list of the many conditions were research funds would contribute to the health of the horse. Veterinarians are the primary advocates for the health, safety and welfare of the horse and it is essential that these concerns be actively and regularly addressed.

8. References

1. Guan F, Soma LR, Luo Y, et al. Collision-induced dissociation pathways of anabolic steroids by electrospray ionization tandem mass spectrometry. Journal of the American Society for Mass Spectrometry 2006;17:477-489.

2. Guan F, Uboh CE, Soma LR, et al. Detection, quantification and confirmation of anabolic steroids in equine plasma by liquid chromatography integrated with tandem mass spectrometry
Journal of Chromatography B 2005;829:56-68.

3. Soma LR, Uboh CE, Guan F, et al. Pharmacokinetics of Boldenone and Stanozolol and the Results of Quantification of Anabolic and Androgenic Steroids and in Race Horses and Non-Race Horses. J Vet Pharmacol Therap 2007;30:1-8.

4. Guan F, Uboh CE, Soma LR, et al. High-throughput UHPLC-MS/MS method for the detection, quantification and identification of fifty-five anabolic and androgenic steroids in equine plasma. J Mass Spectrom 2010;45:1270-1279.

5. Guan F, Uboh CE, Soma LR, et al. Correlation of product ion profiles with molecular structures of androgenic and anabolic steroids in ESI MS/MS. J Mass Spectrom 2010;45:1261-1269.

6. Liu Y, Uboh CE, Soma LR, et al. Detection and confirmation of 60 anabolic and androgenic steroids in equine plasma by liquid chromatography-tandem mass spectrometry with instant library searching. Drug Test Anal 2011;3:54-67.

7. You Y, Uboh CE, Soma LR, et al. Simultaneous separation and determination of 16 testosterone and nandrolone esters in equine plasma using ultra high performance liquid chromatography-tandem mass spectrometry for doping control. J Chromatogr 2011;1218:3982-3993.

8. You Y, Uboh CE, Soma LR, et al. Ultra-performance liquid chromatography/tandem mass spectrometry in high-throughput detection, quantification and confirmation of anabolic steroids in equine plasma. Rapid Communications in Mass Spectrometry 2009;23:2035-2044.

9. Pascoe JR. Why does exercise induced pulmonary haemorrhage occur? Equine Veterinary Journal 1985;17:159-161.

10. Pascoe JR, Ferraro GL, Cannon JH, et al. Exercise-induced pulmonary hemorrhage in racing thoroughbreds: a preliminary study. American Journal of Veterinary Research 1981;42:703-707.

11. Sweeney CR, Soma LR, Maxson AD, et al. Effects of furosemide on the racing times of Thoroughbreds.[see comment]. American Journal of Veterinary Research 1990;51:772-778.

12. Sweeney CR, Soma LR. Exercise-induced pulmonary hemorrhage in thoroughbred horses: response to furosemide or hesperidin-citrus bioflavinoids. Journal of the American Veterinary Medical Association 1984;185:195-197.

13. Sweeney CR, Soma LR, Bucan CA, et al. Exercise-induced pulmonary hemorrhage in exercising Thoroughbreds: preliminary results with pre-exercise medication. Cornell Veterinarian 1984;74:263-268.

14. Birks EK, Shuler KM, Soma LR, et al. EIPH: postrace endoscopic evaluation of Standardbreds and Thoroughbreds. Equine Vet J 2002;Supplement.:375-378.

15. Erickson BK, Erickson HH, Coffman JR. Pulmonary artery and aortic pressure changes during high intensity treadmill exercise in the horse: effect of frusemide and phentolamine. Equine Veterinary Journal 1992;24:215-219.

16. Soma LR, Birks EK, Uboh CE, et al. The effects of frusemide on racing times of Standardbred pacers. Equine Vet J 2000;32:334-340.

17. Soma LR, Laster L, Oppenlander F, et al. Effects of furosemide on the racing times of horses with exercise-induced pulmonary hemorrhage. Am J Vet Res 1985;46:763-768.

18. Sweeney CR, Soma LR, Maxson AD, et al. Effects of furosemide on the racing times of Thoroughbreds. Am J Vet Res 1990;51:772-778.

19. Gross DK, Morley PS, Hinchcliff KW, et al. Effect of furosemide on performance of Thoroughbreds racing in the United States and Canada.[see comment]. Journal of the American Veterinary Medical Association 1999;215:670-675.

20. Hinchcliff KW, McKeever KH, Muir WW, 3rd, et al. Effect of furosemide and weight carriage on energetic responses of horses to incremental exertion. American Journal of Veterinary Research 1993;54:1500-1504.

21. Hinchcliff KW, McKeever KH, Muir WW, et al. Furosemide reduces accumulated oxygen deficit in horses during brief intense exertion. Journal of Applied Physiology 1996;81:1550-1554.

22. Zawadzkas XA, Sides RH, Bayly WM. Is improved high speed performance following frusemide administration due to diuresis-induced weight loss or reduced severity of exercise-induced pulmonary haemorrhage? Equine Veterinary Journal 2006;Supplement.:291-293.

[Additional material from Mr. Soma is available at http://docs.house.gov/meetings/IF/IF17/20131121/101517/HHRG-113-IF17-Wstate-SomaL-20131121-SD001.pdf and http://docs.house.gov/meetings/IF/IF17/20131121/101517/HHRG-113-IF17-Wstate-SomaL-20131121-SD002.pdf.]

Mr. TERRY. Thank you. And, Mr. Tygart, you are recognized. And as I understand, you just flew back from South Africa. So if you are talking a little slower because of your jetlag, we will understand.

STATEMENT OF TRAVIS T. TYGART

Mr. TYGART. Thank you, Mr. Chairman, and members of the committee. Good morning. My name is Travis Tygart, and I am the CEO at the United States Anti-Doping Agency. It is an honor for me to be here representing the USADA Board and the tens of millions of clean athletes that we serve. It is also an honor for USADA, a 501(c)(3) not-for-profit corporation based in Colorado, to play a role as an independent organization to assist the sport of horseracing to ensure level playing field, enhance the consumer confidence in the gaming industry and to sustain a culture of health for athletes, and hopefully allow for the overall economic growth for the entire horse industry as we have seen in the Olympic movement.

True sport has been on the idea of honesty, respect, fairness and an equal opportunity for success under the rule of law, the very same principles that build the foundation of every free and democratic society. We firmly believe, as do our athletes, that the greatest injustice in sport is when one competitor robs another of their hard work, dedication and victory because they gained an unfair advantage contrary to the rules.

Accordingly, we welcome and appreciate this committee's focus on the harms that are caused by performance-enhancing drug use in sport. The issue of drugs in sport and corruption in sport strikes at the very heart of what role sport will play in America's future.

Bottom line, if we turn a blind eye to fraudulent conduct, contrary to the rules of competition in track and field, cycling, football, even horseracing, essentially saying as long as we win and don't get caught, it is OK, then we send a very powerful message that it is acceptable, justifiable, even noble to win by any means necessary, including dangerous performance-enhancing drugs, fraud or whatever, as long as you win and you don't get caught.

And make no mistake, the win at all costs culture is alive and well and will flourish in every sport, including horseracing, if we do not take decisive action to stop the thieves from running wild, and instead truly give hope to those who compete to win under the rules.

USADA's perspective on the current anti-doping climate in horseracing comes from living the history of the fight against doping that has occurred within the international Olympic movement over the past 13 years. In the late 1990s, there was a myriad of different anti-doping rules and regulations across the globe in each jurisdiction in sport. There was no uniform or harmonized policy for what was considered a violation, what was tested for, how collections and chain of custodies procedures applied, what laboratory

standards applied. There were varying sanction links. Ultimately, this system of self-regulation by the various States and sports created an unattainable position for sport, for athletes. And it seriously disrupted the economic viability of the Olympic Games. Suffice it to say, the Olympic rings were badly tarnished. And that was bad for business.

In 1999, athletes, governments, sporting world said enough is enough and came together to solve the problem. This game changing moment ultimately led to the creation of the World Anti-Doping Agency, or WADA. And after an open, transparent consultation process, eventually led to the passage of the WADA Code and the international standards. Today, the code and the standards are the uniform policies that apply equally to all athletes, coaches and trainers across the globe. They are the substantive anti-doping rules that we all agreed to and we are bound by. Today, there are approximately 520 sport organizations and 172 governments from around the world that have accepted and agreed to abide by the WADA Code. There is no good reason why this same effort cannot be done for the horseracing industry in the United States. And the current legislation allows for it.

The first step to curing the problem was passing the uniform policy. The second equally important measure was to ensure the uniform and full implementation of the policy. USADA was open in late 2000 as the organization that handles this responsibility. It was extremely courageous for the United States Olympic Committee, the 45 or so national federations like USA Basketball, USA Swimming, to fully externalize their efforts to USADA. But they took the stand because it was clear, the sports themselves could not simultaneously promote and police themselves.

In addition to true independence and transparency, the WADA code provides a guide to what this legislation would allow to be addressed effectively in the horseracing industry. Effective testing, including standardized selection, collection, chain of custody and transport rules and practices, a full list of substances and methods that would capture new designer drugs as you just heard from Dr. Soma. Implementation of best legal practices and policies, which must include adequate sanctions to deter doping, and due process protections for those accused of violations. The implementation of best scientific standards for laboratory uniformity and practices, including a robust accreditation and proficiency testing program, as well as scientific research for the detection of new substances. Investigative units and partnerships with Government, particularly law enforcement, to ensure those who illegally manufacture, traffic and distribute these dangerous drugs who might be outside of sports jurisdiction are also held accountable.

In conclusion, I would like to thank this committee for its time, its interest on this important, ethical and public health issue, and for inviting me here today to share USADA's experiences. We look forward to assisting you in any way possible going forward as you consider this legislation and hopefully restore the faith in this wonderful sport. Thank you.

[The prepared statement of Mr. Tygart follows:]

November 21, 2013 House Hearing

Conducted by the House Energy and Commerce Subcommittee on Commerce, Manufacturing, and Trade

Testimony of Travis T. Tygart

Chief Executive Officer

United States Anti-Doping Agency

Mr. Chairman, members of the Committee, good morning. My name is Travis T. Tygart and I am the CEO of the United States Anti-Doping Agency (USADA). I want to thank this Committee for its interest in clean sport and for the opportunity to appear before you today to discuss this important ethical and health issue.

It is an honor for me to be here representing the USADA Board, our small but talented professional staff and the tens of millions of clean athletes in the United States that we serve.

It is also an honor for USADA, a 501(c)(3), not-for-profit, incorporated in Colorado, to be asked through the legislation to play a role as an independent non-governmental organization to assist the sport of horseracing to ensure a level-playing field, enhance the consumer confidence in the gaming industry and to sustain a culture of health for the athletes and hopefully allow for overall economic growth for the entire industry.

True sport is built on the idea of honesty, respect fairness and an equal opportunity for success under the rule of law—the very same principles that build the foundation of every free, democratic society. We firmly believe as our athletes do and all should that the greatest injustice in sport is when one competitor robs another of their hard work, dedication and victory because they gained an unfair advantage under the rules of the game. Of course, we all want to win and hate to lose but what we hate more is losing to someone who cheats.

Accordingly, we welcome and appreciate this Committee's focus on the harms that are caused by performance enhancing drugs in sport.

The issue of corruption and drugs in sport strikes at the very heart of the question of what role sport will play in America's future. USADA's interest in this discussion is driven by a motive to not only protect the rights of today's Olympic athletes to play drug free but just as important to protect America's next generation of athletes.

Illicit steroid use is illegal and an ethical and public health problem that reaches right to the core of our collective values and our future, because it adversely affects today's high school, junior high school and even grade school athletes.

Bottom line, if we turn a blind eye to fraudulent conduct contrary to the rules of competition in track and field, cycling, football or horseracing— essentially saying as long as we win and do not get caught it is okay – then we send a powerful message that it is acceptable, justifiable, even noble, to win by any means necessary including using dangerous performance enhancing drugs, corrupt measures, fraud, or whatever—as long as you win and do not get caught.

And, make no mistake, the win at all costs culture is alive and well and will flourish in every sport including horseracing, if we do not take decisive action to stop the take no prisoners competition from running wild and instead truly give hope through effective enforcement for those who compete to win under the rules.

USADA's perspective on the current anti-doping climate in horseracing comes from living the history of the fight against doping that has occurred within the international Olympic movement over the past thirteen years. That history is important because the questions faced and the answers offered today echo a similar process undertaken by the International Olympic Committee and the United States Olympic Committee (USOC) in the late 1990's. This effort also provides a successful roadmap for the unchartered waters toward uniformity, harmonization and full independent implementation currently facing the horseracing industry.

In the 1990's, the public did not view the global Olympic movement as being committed to ensuring fair play, integrity and sport equality when it came to stopping corrupt drug use in sport.

There was a myriad of different rules and regulations across the globe in each jurisdiction and even each sport. There was no uniform or harmonized policy for what was considered a violation, what was tested for, what collection and chain of custody procedures applied, what laboratory standards applied, there were varying sanction lengths.

Ultimately, this system of self-regulation by the various states and sports led to perceptions of conflict of interest and rife allegations of attempts to cover up doping behavior. This created an untenable position for athletes, sport and seriously disrupted the economic

viability of the Olympic Games. Suffice it to say, the Olympic rings were tarnished and that was bad for business.

In 1999, athletes, the sporting world and governments said enough is enough and came together at the first World Conference on Doping in Sport to solve the problem. The U.S. Olympic sports and government participated in this game changing event which ultimately led to the creation of the World Anti-Doping Agency or WADA.

WADA is a private organization consisting of a foundation board and executive committee formed from sport and governments of the world including the U.S. From its formation in late 1999 until 2003, WADA listened, sought feedback and ultimately drafted and approved the World Anti-Doping Code.

Today, the Code is the uniform policy document that applies equally to all athletes, coaches, trainers, sport officials in the global Olympic movement and provides the substantive anti-doping rules we all agree to and are bound by.

The uniform Code harmonizing the rules of competition has been revised now three times through an elaborate open, transparent and democratic process. The new version was just approved at the Fourth World Conference this past Friday in South Africa and will go into effective in 2015.

To date, approximately 520 sporting organizations and 172 governments have accepted the WADA Code; thereby, agreeing to the principles of fair play, sport equality and committing to implement the mandatory substantive anti-doping rules of the uniform WADA Code into the rules of the game.

There is no good reason why this same effort could not be done for the horseracing industry in the U.S. and the current legislation would allow a similar process to happen with sport organizations, racing commissions, racetracks, trainers, owners and others within the industry.

Simultaneously in 1999, the United States Olympic Committee also realizing it could not fairly or properly police itself, formed a task force to investigate and consider the best approach to fighting doping in the U.S. Olympic movement.

As a result of this sport led process, USADA was formed in 2000. The creation of USADA triggered a radical transformation in the world's perception of anti-doping efforts in the United States Olympic Movement. We are now viewed as a world leader in Olympic anti-doping and it is universally acknowledged that our athletes are subject to one of the world's most rigorous anti-doping programs in the world and that they are winning the right way because the doping way is too costly.

It was an extremely courageous decision for the USOC and the 45 or so national governing bodies like USA Swimming, USA Basketball, USA Track and Field to fully externalize their efforts to USADA, but they took the stand because it was clear that the sports themselves could not simultaneously promote and police their sports.

The key to any good anti-doping program is independence. It is important that "independence" not be dismissed as simply window dressing designed to remove perceived conflicts.

Instead, USADA's experience has established that true independence is a functional and fundamental requirement of an effective anti-doping program. In fact, true independence is the single most important element of the USADA model because it provides us with complete authority over all areas of the entire anti-doping program.

Simply put, USADA's mission is to protect clean sport and preserve the rights of athletes to compete clean. In accomplishing that mission, USADA does not have a conflicting duty to also protect the image of the sport it serves or of commercial factors such as obligations to sponsors, owners or other investors. This true independence frees USADA to take the steps necessary to accomplish its mission without worrying about the possible negative impact on the financial interests or the image of the sport.

Ultimately, by keeping a steadfast focus on the sole goal of clean sport, USADA has improved the image of Olympic sport, but that victory has necessarily come at the price of exposing the dark side of sport along the way. When the path to redemption requires that individuals once thought to be heroes must be exposed as frauds, it takes a strong resolve to walk that path. Unfortunately, experience establishes that where that resolve may be impacted by a duty to protect the image of the sport or its profits then the mission will be easily compromised.

The history of anti-doping efforts in the Olympic movement and the experience of other sports, establish that partial independence is not an effective model for fighting doping in sport. The fight against doping in sport cannot be a part-time job and true progress will not be achieved through anything less than the full commitment and dedication of a team of experts.

In addition to true independence and transparency, the WADA Code provides the substantive provisions by which all anti-doping policies can be evaluated and provides a guide to what this legislation would allow:

> Effective testing including standardized selection, collection, chain of custody and transport rules and practices;
>
> A full list of prohibited substances and methods that would capture new, designer drugs as they are developed and a uniform and open process dealing with the use of legitimate medically necessary, non-performance enhancing medications;
>
> Implementation of best legal policies and practices as they evolve which must include adequate sanctions to deter doping and due process protections for those accused of doping violations;
>
> Implementation of best scientific standards for laboratory uniformity and practices including robust accreditation and proficiency testing as well as scientific research for the detection of new doping substances and techniques and for the pursuit of scientific excellence into anti-doping;

Implementation of education programs to truly change the hearts and minds of would be cheaters and to prevent those from fraudulent behavior;

Investigative units and partnerships with government particularly law enforcement to ensure that those who illegally manufacturer, traffic and distribute these dangerous drugs and who might be outside of sports jurisdiction are also held accountable for their illegal behavior.

Our duty to these clean athletes and our mission require us to advocate for the most effective anti-doping policies at all levels of sport even when that means offering candid assessments of the programs of other sports entities. While no anti-doping program is perfect until the program elements discussed above are fully realized by all elite level sports organizations their programs will not be as effective as they should be and there is really no good reason if we care about the integrity of horse racing, care about the health of the athletes, care about the legitimacy of the gaming industry that a uniform, independent effective anti-doping program cannot be put in place with the buy in and support of the sport just as we have seen in the worldwide Olympic movement.

I would like to thank this Committee for its time and its interest in this important ethical and public health issue and for inviting me to share USADA's experience and perspectives. We look forward in assisting you as needed as you move forward and genuinely hope that the model of independence and harmonization envisioned through this legislation can be realized for the long term good of this wonderful sport.

Mr. TERRY. Thank you. And thank you for your extraordinary efforts to be here today. Dr. Lyons, you are recognized for 5 minutes.

STATEMENT OF SHEILA LYONS

Ms. LYONS. Thank you, Chairman Terry, Ranking Member Sarbanes and members of the subcommittee for allowing me to testify today. My name is Sheila Lyons, and I am a veterinarian who specializes in equine sports medicine and physical medicine and rehabilitation. My private veterinarian consulting practice is both national and international in scope, which provides me with an overview of the horseracing industry and the veterinary profession that includes many distinct jurisdictions. I am the founder of the American College of Veterinary Sports Medicine and Rehabilitation, a member of the International Society of Physical Medicine and Rehabilitation, and a member of the International Federation of Sports Medicine. I provide education to veterinary students, veterinarians, physical therapists, farriers and horsemen across the country and internationally. My patients have included some of the world's finest thoroughbred racehorses. But I have regularly provided veterinary services to horses at every level of the sport for nearly 30 years.

First, do no harm. This well-known creed describes the most important and fundamental principle of medical ethics. It is also the principle that is being violated every day by racetrack veterinarians across this country.

First, get this horse to the races has become the substitute creed for too many racetrack veterinarians. The pervasive and unethical use of injury masking and performance-enhancing drugs in horseracing in the United States has created a national health and safety crisis in the industry, and is destroying the reputation of a once vibrant sport. This pattern of drug abuse is deemed legal and some might say encouraged under our current horseracing regulatory system. The Horseracing Integrity and Safety Act of 2013 holds the power to reverse this injustice through its mandate of drug free racing, its designation of a national and fully independent expert regulatory authority, its requirement that appropriate penalties be enforced without bias, and this legislation's clear and unambiguous message to the horseracing industry, veterinary community and the public that cheaters will not prosper and drugs may only be administered under the strict ethical and professional guidelines known as the veterinarian/client patient relationship. The veterinarian's role will once again be based upon the principles of veterinary medical ethics.

The veterinarian/client patient relationship seems a simple term but holds powerful meaning. This legislation's repeated incorporation of this term in this bill is key to enacting essential reform in the standard of veterinary care that all racehorses receive, without regard to their monetary value or level of racing.

Not unlike the standards governing human medicine, the standards of veterinary practice, which all licenses are conditioned upon, include a fundamental basis for all services called the veterinarian/client patient relationship. This requires that a veterinarian have adequate knowledge of the patient before administering or prescribing drugs for the animal. Such adequate knowledge requires

the veterinarian to take a full patient history, conduct an examination, make a diagnosis, develop a therapeutic plan, prescribe medications strictly for the purpose of restoring or protecting health, and reexamine that patient to determine the success or failure of the treatments. The veterinarian must also keep comprehensive records documenting these professional services. In other words, this legislation requires that there be a therapeutic purpose behind the administration of any drug and prohibits the use of drugs for purposes of promoting competition or profit.

Racehorse is not a diagnosis. And a veterinarian must meet a higher standard of care and practice before administering medication.

This legislation provides the essential key to returning the absolute authority over the regulation of the practice of veterinary medicine squarely back with each State veterinary board by banning all drugs during racing while reinforcing the vet board's mandate of the veterinarian/client patient relationship. In doing so, the current illusion that racing commissioners have that racing commissioners have any say whatsoever regarding which drugs a veterinarian may administer to a patient will be removed, along with any confusion about which regulatory authority is in charge.

The State veterinary boards will reemerge as the effective and sole authorities and regulators over the practice of veterinary medicine in each State. This legislation not only provides a dream solution to the ethical and safety problems plaguing the United States horseracing industry, but its implementation is absolutely essential if the industry is to survive and regain its position as an international leader in the sport.

[The prepared statement of Ms. Lyons follows:]

Testimony of Sheila Lyons, DVM

"H.R. 2012, A Bill To Improve
The Integrity and Safety of Interstate Horseracing, and For Other Purposes."

November 21, 2013

United States House of Representatives

Energy & Commerce Committee

Subcommittee on Commerce, Manufacturing, and Trade

Sheila Lyons, DVM
Founder and Director
The American College of Veterinary Sports Medicine and Rehabilitation®
21 Augusta Avenue
Brockton, MA 02301
561-889-7222
ACVSMR@comcast.net

Summary of Testimony By Sheila Lyons, DVM, November 21, 2013

I fully support the Horseracing Integrity and Safety Act of 2013 and its mandate of drug free horse racing; its designation of a national and independent regulatory authority; its requirement that appropriate penalties be enforced without bias; and this legislation's clear and unambiguous message to the horse racing industry, veterinary community and the public that cheaters will not prosper and drugs may only be administered or prescribed for racehorses under the strict ethical and professional guidelines known as the veterinarian-client-patient relationship. The pervasive use of injury masking and performance enhancing drugs in horse racing in the United States has created a crisis in the horse racing industry and is destroying the reputation of a once vibrant sport. Veterinarians are often asked by horsemen to provide quick fixes for injured horses and too often they oblige these unethical requests. Racing commissions, in their attempt to regulate and moderate the use of drugs, have developed guidelines for the administration of many powerful pharmaceuticals but the only responsible policy is a complete ban on all drugs in racing. This anti-doping policy will serve to regain the public's confidence by instituting measures which assure the safety of horses and riders and restore the integrity of the multibillion dollar pari-mutuel wagering industry. My experience as a veterinary consultant with over thirty years of experience in equine sports medicine and rehabilitation both in the United States and abroad has revealed that when drug use is prohibited in racing, drug abuse declines overall. When drugs cannot be used to mask injury on race day it removes the incentive for the training of unsound horses. This is in contrast to our current system where the recklessly permissive use of powerful pharmaceuticals to both enhance performance and mask injury has encouraged horsemen to drug-to-train and then drug-to-race. We need this legislation to end the rampant injury-masking and performance-enhancing drugging of horses because the horse racing industry has demonstrated an inability or unwillingness to regulate itself.

Thank you Chairman Terry, Ranking Member Schakowsky, and members of the Committee for allowing me to testify today. I ask that my full written remarks be included in the hearing record.

My name is Sheila Lyons and I am a veterinarian who specializes in equine sports medicine and physical medicine and rehabilitation. My private veterinary consulting practice is both national and international in scope which provides me with an overview of the horse racing industry and the veterinary profession that includes many distinct regulatory jurisdictions. I am the founder of the American College of Veterinary Sports Medicine and Rehabilitation, a member of the International Society of Physical Medicine and Rehabilitation, and a member of the International Federation of Sports Medicine. I provide education to veterinary students, veterinarians, physical therapists, farriers and horsemen across the nation and internationally. My patients have included some of the world's finest thoroughbred racehorses but I have regularly provided veterinary services to horses at every level of the sport horse industry for nearly thirty years.

I want to thank Congressman Pitts, Congressman Whitfield, Congresswoman Schakowsky, and Congresswoman Eshoo for co-sponsoring the bill known as the Horseracing Integrity and Safety Act of 2013 for consideration by the United States House of Representatives. This legislation not only provides a "dream solution" to the ethical and safety problems plaguing the United States horseracing industry, but its implementation is absolutely essential if the industry is to survive and regain its position as an international leader in the sport. The horse racing industry in the United States has reached its tipping point and if we wait any longer for solutions to appear I believe it will be too late to salvage what was once a great sport and a thriving business in this country. We used to be the leaders that others wished to emulate. Now we are seen as the jurisdiction where racing

records are suspect of having more to do with performance enhancing and injury masking drugs than excellence in sport.

We have been waiting for decades for promised reforms to materialize through self-regulation. The first Congressional hearings took place on this same topic in May of 1982. At that time industry representatives made the same promises to Congress and to the American people. They assured us that change was imminent and that the industry could police itself and integrity and safety would improve. Well, the situation has, indeed, changed – but not for the better. Instead the sport horse industry has seen more than three decades of steady decline. They asked for a little more time to produce these improved results and the federal government gave it to them. I believe that thirty years is time enough. It is time to act on behalf of the public, the horses and the honest people who have been driven out of the horse racing industry because they find it impossible to compete in an arena which is rigged by corruption and unethical veterinary practices.

I fully support the Horseracing Integrity and Safety Act of 2013 and its mandate of drug free horse racing; its designation of a national and independent regulatory authority; its requirement that appropriate penalties be enforced without bias; and this legislation's clear and unambiguous message to the horse racing industry, veterinary community and the public that cheaters will not prosper and drugs may only be administered or prescribed for racehorses under the strict ethical and professional guidelines known as the veterinarian-client-patient relationship.

The Veterinarian-Client-Patient Relationship

The unique authority and privilege that veterinarians have to administer, prescribe and dispense medication is granted not through racing commissions but through licensure by state veterinary boards. Once licensed, veterinarians are required by law to strictly adhere to the standards of practice that regulate our profession. There are no exemptions for veterinarians who work with racehorses. We are required by law to keep comprehensive patient records which document adherence to these strictly defined standards of practice for every patient, and for each dose of every drug we administer, dispense or prescribe. We must also make these records available to our clients upon request. But this is not what is happening at race tracks today. And this is the most significant drug problem that underlies the intolerable rate of permanent injury and death of racehorses and their riders.

Not unlike the standards governing human medicine, the standards of veterinary practice, which all veterinary licenses are conditioned upon, include a fundamental basis for all veterinary services called the "veterinarian-client–patient relationship". This requires that a veterinarian must have adequate knowledge of a patient before administering or prescribing drugs for the animal. Such adequate knowledge requires that the veterinarian must examine the patient, make a diagnosis, prescribe medication strictly for the purpose of improving or protecting the health and well-being of the patient, re-examine the patient to determine the success or failure of treatments, and the veterinarian must keep a comprehensive record documenting these professional services. This requirement protects the horse and its rider from serious injury because it prohibits the unlawful choice to simply administer drugs to racehorses upon trainer request in order to mask injury to accommodate the racing and training of injured, unsound or unfit horses.

The pervasive use of injury masking and performance enhancing drugs in horse racing in the United States has created a crisis in the horse racing industry and is destroying the reputation of a once vibrant sport. Veterinarians are often asked by horsemen to provide quick fixes for injured horses and too often they oblige these unethical requests. Racing commissions, in their attempt to regulate and moderate the use of drugs, have developed guidelines for the administration of many powerful pharmaceuticals but the only responsible policy is a complete ban on all drugs in racing. This anti-doping policy will serve to regain the public's confidence by instituting measures which assure the safety of horses and riders and restore the integrity of the multibillion dollar pari-mutuel wagering industry. Some will try to tell you that a no-drug rule will harm horses by making responsible veterinary treatments illegal but this is not the case. These apologists for the *status quo* have literally run this industry into the ground often times to protect vested interests. The time for a new direction has arrived.

Much has been made in this prolonged debate of the idea that there are certain drugs that are deemed therapeutic and therefore they should be allowed in racing. It is further argued that denying racehorses these medications would be inhumane. It is important to remember that no medication is therapeutic in it of itself. It is the context in which a drug is administered which determines its fate as either therapeutic, injury masking or performance enhancing. Examples of this were clearly presented in The New York Task Force on Racehorse Health and Safety Report, (links to this report and excerpts from which I have included in the attached appendix of scientific papers). The Task Force's expert review of twenty-one fatal breakdowns concluded that "Based upon the information provided, there may have been opportunities to prevent 11 of the 21 fatalities." The task force findings repeatedly found that legal medications had been administered to horses but the horse raced before there was an opportunity to determine the success of the

therapy and the medication impaired the regulatory veterinarian's ability to detect the signs of injury in the pre-race examination. In other words, the medication may have removed the acute signs of injury but the horse raced before it could be known if the underlying condition had resolved. This is injury masking and it leads in many cases to the inhumane treatment of animals and death on the racetrack. Enforcement of the standards of licensed veterinary practice and the requirement that all drug administration must be done within the context of a valid veterinarian-client-patient relationship will prevent such abuses as the patient would be required to be rested until the efficacy of the drug therapy is known through re-examination by the veterinarian to determine that the horse has fully recovered and is sound without the effects of injury masking medications.

My experience as a veterinary consultant with over thirty years of experience in equine sports medicine and rehabilitation both in the United States and abroad has revealed that when drug use is prohibited in racing, drug abuse declines overall. When drugs cannot be used to mask injury on race day it removes the incentive for the training of unsound horses. This is in contrast to our current system where the recklessly permissive use of powerful pharmaceuticals to both enhance performance and mask injury has encouraged horsemen to drug-to-train and then drug-to-race. We need this legislation to end the rampant injury-masking and performance-enhancing drugging of horses because the horse racing industry has demonstrated an inability or unwillingness to regulate itself. In addition, state veterinary boards often lack the resources, mechanisms or will to intervene in areas that come under the jurisdiction of horse racing regulators. The Horseracing Integrity and Safety Act of 2013 will ensure that horseracing regulation will be fully respectful of and compliant with state veterinary board regulations through its requirement that the veterinary-client-patient relationship is established for the treatment of all racehorses.

I am often asked why I am of the opinion that it is dangerous to allow the use of anti-inflammatory medications at low or moderate doses during racing and training, especially in view of the fact that many of us take similar medications to relieve minor pain associated with sports or other physical activities. Let me offer just one example which may help to clarify the difference and the need for extreme caution when prescribing and allowing the use of such drugs in racehorses. In my practice, I have evaluated numerous patients that have suffered incomplete non-displaced fractures in their lower limbs. Common sense might suggest that these horses would most likely present with significant lameness and severe localized pain and swelling, but in fact many of them present with unsoundness that is so subtle it can be easily missed and easily dismissed. When examining a racehorse patient with a nonspecific complaint of simply not training well that day and perhaps having some minor heat detected in the lower limb, I will sometimes have to listen to the sound as the horse trots on a hard surface to detect a subtle difference in the impact of the footfall which suggests the softer landing limb may be painful or unstable. Their gait and posture can appear nearly normal and without further expert examination it would be easy to dismiss the problem as minor training related soreness. Further diagnostic testing with radiography has revealed the presence of non-displaced incomplete fractures in many such cases. In other words, the horse has a crack in a bone. These fractures will become complete and lead to catastrophic and often fatal injury if the horse continues to train or race. Often when horses break down during morning training the horsemen will say that the animal seemed fine or was just a "little bit off" and they just went out for an easy gallop and the leg snapped in two. Science holds that many of these incidents involve horses that had pre-existing incomplete fractures which went undetected and were further masked through the indiscriminant use of anti-inflammatory medication. So this is just one example of a common racehorse injury which illustrates that no degree of unsoundness should be medicated away without a comprehensive and thoughtful veterinary examination. There is no such

thing as minor unsoundness in the racehorse. The Horseracing Integrity and Safety Act of 2013's reinforcement of the strict adherence to responsible standards of veterinary practice through the bill's repeated reference to the veterinarian-client-patient relationship will put the racehorse veterinarian back in charge of diagnosing and treating injuries responsibly. It will remove all ambiguity that persists about the role of the veterinarian. It will remove the incentive to drug-to-train and drug-to-race. We are only licensed to provide services which promote and facilitate improved health. It is not within our privilege to prescribe drugs to enable unfit and injured horses to train and race and yet, at present, this is the prevalent standard of care in veterinary practice at race tracks across the country.

Conflicts of Interest and the Need for an Independent Regulator

The conflict of interest which exists between the business of horse racing and the implementation of effective and unbiased safety protocols for horses and riders has increased as more tracks have opened in an attempt to have a stake in this profitable interstate pari-mutuel industry. Simply put, as more tracks open, more sound racehorses are needed to fill the races. It has become clear that the sport's reach has extended beyond its ability to safely operate and as a result pressure is put on horsemen and veterinarians to allow unsound horses to race in order to fill the races. Track veterinarians have reported to me that their standards for "racing soundness" diminish every year. Many track veterinarians contacted me following my testimony at the Senate hearing in 2012 to tell stories of conflict of interest which led to horses being allowed to race even when my colleagues advised a scratch and many of these horses raced and fatally broke down.

The New York State Racing and Wagering Board's Task Force Report included the following on Page 49:

> "A trainer reported that after observing an entered horse undergo its pre-race exam and receive clearance from the NYRA veterinarian, the trainer promptly submitted a scratch request to the Stewards, stating that the horse appeared unsound during the exam. Given this information, the determination that a number of the fatally injured horses should not have raced, the Task Force is concerned that: 1) the NYRA veterinarians' criteria for the determination of racing soundness are inadequate; 2) there is pressure on the NYRA veterinarians not to initiate scratches; or 3) there is a lack of proficiency in identifying unsound horses."

Further concerns about a possible conflict of interest were described in the same report on Pages 49-50:

> "During its site visit April 19, 2012, the Task Force learned that the NYRA Steward was being required to accompany NYRA veterinarians on a rotational basis during the morning pre-race exams. The Task Force was unaware of any other racetrack or racing jurisdiction where a Steward accompanies a veterinarian performing a pre-race exam. The justification for this procedure is unknown, but raises speculation that there were concerns about the veterinarians being intimidated or their competency questioned. In the case of the latter it would be exceedingly inappropriate to have a layperson assessing a veterinarians' performance."

A similar conflict of interest exists for the private veterinary practitioner at the track. Countless numbers of my colleagues have told me that they wished the trainers would allow them to examine horses and provide services to improve their health and safety but too often this is not the service that is requested by trainers. Veterinarians who refuse to provide injury masking and performance enhancing services often find it very difficult to remain in business at the tracks. We need the support of a regulator that upholds the standards and ethics in practice for racetrack veterinarians and is unbiased by competing business interests. Only a regulator that is fully independent of the

racing industry can enact the reforms that are essential to improve the integrity and safety of the sport. The Horseracing Integrity and Safety Act of 2013 includes this essential provision.

Prevalent Standards of Practice for Racetrack Veterinarians

As a pre-veterinary student and throughout veterinary school at Tufts I worked at a racetrack in Boston for a veterinarian who had the largest practice there. It was my job to stay with his car and take drug orders all morning from the horsemen while dispensing medications at the trainer's request. The only requests that were to be denied were those from clients who had not paid their bills. Then I spent the day filling syringes with the requested drugs, I would find the right horse and hand the veterinarian the syringes. I had to tell him what was in them so that he would know if they had to be injected into the horse's muscle or the vein. This colleague later became the president of the American Association of Equine Practitioners ("AAEP") which is the largest trade association for equine veterinarians in the world. Of historical significance is the fact that this association originally formed when a small number of horse racing veterinarians got together specifically to provide a united veterinary response to assuage public concern about the welfare of horses in racing. The more things change, the more they remain the same. This practice of veterinarians administering drugs per order of the trainer is still the prevalent standard at race tracks in this country.

In another example which evidences the prevalence of this practice, about ten years ago I provided expert witness testimony for a state attorney general's office in a case that began with DEA violations for a few race track veterinarians who had failed to maintain proper drug inventory, patient records and storage conditions for controlled substances. The veterinarians, in their

interview with the DEA, reportedly defended their suspicious purchase history for the controlled drug, by declaring that "Race track vets are simply drug whores for the trainers." Contrary to the oath they took as veterinarians, they asserted that they were not required to have a veterinarian-client-patient relationship, a working diagnosis or a record of physical examination and they stated that they only needed to abide by racing industry regulations because their patients were race horses. They were wrong.

I was the only veterinarian with expertise in equine sports medicine willing to testify on behalf of the Attorney General's prosecutor and the State Veterinary Board. I tried to get colleagues to help but despite agreeing with the seriousness of the violations of standards of practice, not one would publicly take the only professionally defensible position because they would not speak out against the racing industry's wishes and the veterinary profession's commercial interests. Each colleague warned that by doing so I would invite professional and political difficulties for myself. What followed was a reaction of the racing industry to "look at the issue". In California, shortly after the decision, an industry association led by a race track veterinarian introduced state legislation proposing that sport horses and their veterinarians be exempted from this requirement for meeting the strict standards of practice regarding the administration and prescription of drugs. Fortunately it failed. What this showed is that some real clout when it comes to getting rid of illegal anti-therapeutic and indiscriminate use of drugs in racehorses lies in the agency that *conditionally* grants licensed veterinarians the authority to prescribe, dispense and administer drugs to horses in the first place. If regulations are honored by racing regulators and are enforced by these state veterinary licensing boards, we could end all discussion about drugs and racehorses as it would be moot because it could not occur. The Horseracing Integrity and Safety Act of 2013 will add an

additional level of support through its clear language stating that the veterinarian-client-patient relationship must be established for all veterinary services provided to racehorses.

Conducting a thorough physical examination of a patient; keeping comprehensive medical records in accordance with state veterinary licensing regulations; having a working diagnosis that must be supported by examination findings; recording a therapeutic plan; and reassessing the patient to determine the success or failure of these treatments while under a veterinarian's care should all be enforced. And if horses are unwell and in need of drug therapy, then on this basis alone, they should not be allowed to race. If they are well, they cannot be given medication under the law which regulates my profession. *"Racehorse" is not a diagnosis,* and a veterinarian must meet a higher standard of care in practice before administering medication.

I once proposed, in a devil's advocacy position, that if at race tracks the veterinary profession wishes to waive the condition of necessitating the veterinarian-client-patient relationship then we should simply designate veterinary technicians to administer drugs at the trainers' request and stay out of this non-medical practice, and of course, not benefit financially from this "business". My colleagues disagreed.

I was disappointed when at the conclusion of your hearing in 2008, in response to a final question from a Committee Member, not one member of the panel placed the responsibility on the only participant who has the authority to provide the drugs in the first place - it is strictly the veterinarian who is absolutely and solely responsible. We can say no.

Upholding the States' Authority To Regulate the Practice of Veterinary Medicine

The Horse Racing Integrity and Safety Act of 2013 supports and defers to the authority and government oversight that state veterinary licensing boards are in place to provide. The solution to ending the current industry practice of illegal and indiscriminate drugging of racehorses by trainer request is already available through the enforcement of regulations that govern the practice of veterinary medicine. This legislation provides the essential key to returning the absolute authority over the regulation of the practice of veterinary medicine squarely back with each state veterinary board by banning all drugs during racing, through its emphasis of the common veterinary licensing board language and meaning of the veterinarian-client-patient relationship, and through its condition of uniform and effective enforcement through impactful penalties for violators of the no-drug rules or any departure from the veterinarian-client-patient relationship in the provision of veterinary services to racehorses. In so doing, the current illusion that racing commissions have any say whatsoever regarding which drugs a veterinarian may administer to a patient will be removed along with any confusion about which regulatory authority is in charge. The state veterinary boards will re-emerge as the effective and sole authorities and regulators over the practice of veterinary medicine in each state. These professional licensing boards already have Veterinary Practice Acts which clearly define and describe the standards of practice. Through their enforcement authority over veterinary licensees these state boards will ensure that without exception the members of our profession will uphold the *Veterinarian's Oath* and live up to public's expectation for ethics and integrity in the practice of veterinary medicine. The Horse Racing Integrity and Safety Act of 2013 will fully support, uphold and assist the states' regulation over licensed veterinary professionals by endorsing and enforcing the standards of practice by racetrack veterinarians.

Regulation Of Veterinary Medication and Services By Racing Regulators

Regulatory agencies are necessary for all sports. But racing industry regulations should simply assert a higher or additional standard when therapeutic drugs are administered responsibly through the authority of licensed veterinarians. Regulations should require that if I have a patient that needed, for example, an anti-inflammatory and pain killing drug for appropriate medical therapy, as the treating veterinarian I should report this treatment along with its therapeutic context to the horseracing regulatory authorities and this patient should not be allowed to race until the drug is out of its system. The patient should also be managed in accordance with my prescription for training and management until re-examination assures that the horse has fully recovered and is safe to resume regular training. What we have today is a situation that has run amuck where veterinarians and horsemen look to the "limits" set by racing commissions for drug levels and dosing schedules as permission to administer them, anti-therapeutically and outside of the standards of licensed veterinary practice as long as they do not exceed those limits. This illegal practice of drugging horses "up to the limits" is killing our horses and brings shame to the practice of veterinary medicine. It amounts to nothing less than race fixing through animal abuse.

In the racing jurisdiction of Hong Kong, the only veterinarians who are authorized to provide veterinary treatments and services are its official regulatory veterinarians. Their system assures that the veterinary professionals who determine whether a horse is fit to race are the ones who have full knowledge of the horse's condition. Records of veterinary treatments and diagnoses are disclosed to the public so that they can consider the health of the animal before making a wager on a race.

Veterinary Record Keeping as a Safeguard

I propose that we require all licensed veterinarians who work with racehorses to submit their veterinary records, in real time, on all patients. This data would be stored in such a manner as to fully protect confidentiality while enabling regulatory veterinarians' access to this pertinent medical history for each racehorse. This is essential to the regulatory veterinarians' ability to conduct effective pre-race examinations in order to assure racing soundness and safety in the sport. Currently these veterinarians are operating blindly. Full veterinary record disclosure would also enable us to know what drugs are being administered and to understand the therapeutic context of all treatments.

Another benefit of this required record keeping would be the priceless epidemiological data generated that could begin to answer the more important questions of cause and effect, genetics and weakness or strength of horses for racing, and we would finally begin to understand what impacts equine safety and injury which will enable the development of effective solutions which benefit the horses, the owners and trainers, the riders, and the industry itself.

For an industry that was built upon the collection and distribution of statistics relating to how fast horses run distances measured in fractions of a second and the integration of data related to surface conditions and pedigree, the horse racing industry has been curiously bad at even agreeing to collect the most important data of all - the statistics that relate to the most important factor that affects each horse - its health, injuries and success or failure of veterinary treatments including medications. Medical science advances through the collection of all clinical data on all relevant patients so that critical analysis can reveal patterns that speak to our most basic or sometimes urgent questions

regarding the factors that impact, for example, the high injury rate and incidence of catastrophic breakdown of these horses. Not only has the industry itself only recently begun to collect and share data on fatal breakdowns, but most race track practicing veterinarians fail to create or maintain any records whatsoever outside of billing records which simply list the drugs administered along with the date of service and the payment demand to the owner. This violates the standards of practice that veterinarians' licenses are conditioned upon. More egregiously, it fails the veterinary profession's responsibility to advance its understanding of critical equine health related influences, it fails the racing industry and it fails the horse itself because without this essential data we can never begin to apply principles of science to improve our understanding and ability to protect and improve the health and welfare of racehorses.

I have been told by my stakes-horse owning clients that they would be inclined to invest more in the industry if we kept the kind of records on all horses that I have described so that over time the problems that plague the sport and their racing stables could be understood and eliminated through science. The best way to never find something is to never look for it. Once we start creating and keeping all veterinary records on every horse we will have a place to look for the answer to the question about what factors influence catastrophic breakdown and permanently disabling injuries of these horses.

In spite of all the claims that various commissions, racing associations and horseman's groups have made about their priority to determine the reason that so many horses die on the racetrack, few racing jurisdictions even mandate that necropsies are to be performed on all horses that die on the track. The New York Task Force repeatedly noted for every one of its reviews of fatalities: "The absence of a complete necropsy precludes the understanding of the horse's musculoskeletal health."

International Regulation of Drugs in Racehorses

I recommend to my racing clients that they race in Europe or elsewhere since the USA is the only major racing jurisdiction that supports this drug use outside of the standards of licensed veterinary practice. I will not allow them in my patients and yet the playing field is unreasonably unleveled when they must compete against drugged horses. It has been my experience that clients want this better system of preparing their horses scientifically and protecting them from the abuse of drugs and overtraining. Real sports medicine works. Veterinarians can restructure their practices to strictly provide services that improve the health, athletic fitness, strength and protect racehorses from injury. This approach brings the additional benefit of optimized racing performance through true soundness and fitness as opposed to the false perception of soundness achieved through drug abuse in these athletes. This will only be possible if all drugs are banned and enforcement is strong to dissuade horsemen and veterinarians from the prevalent and unethical injury-masking and performance-enhancing drug based practices. The Horseracing Integrity and Safety Act of 2013 will achieve this.

Permanent Injury Leads to Unwanted Horses and Overburdened Shelters

Through my nonprofit organization, Homecoming Farm, I developed a new veterinary specialty and offer educational programs through The American College of Veterinary Sports Medicine and Rehabilitation® ("ACVSMR") in association with physician colleagues who developed the analogous human medical specialty field. Our educational programs partner veterinary student interns with equine retirement facilities where they provide expert rehabilitation services to the horses. This structure enables research and offers priceless education to these students. For over

two decades I have provided this free veterinary care to retired racehorses that end up in shelters after their racing careers are over and if anyone has any doubt about the long term consequences of this anti-therapeutic, reckless and illegal use of drugs in racehorses, I can provide records to prove that the evidence is overwhelming that these horses are systematically and permanently harmed. And these are the lucky ones that were not shuttled off to slaughter.

Risk To Horse and Rider

Not long ago I discussed the state of the horse racing industry with an owner who has been a great asset to the sport for many years. He said that as he saw it, there were only two participants in the horse racing industry that had "skin in the game". They were the horse owners and the race track owners. I agree with his arithmetic because I see exactly two participants as well. But these two are unique because they have their "actual skin in the game". It is the horse and its rider. These participants' lives are put in completely unnecessary and extreme danger through the indiscriminate use of injury-masking and performance-enhancing drugs. If no other voice is heard on the need to eliminate drug use in racing through the Horseracing Integrity and Safety Act of 2013, I think it should be theirs. As an expert in the health and welfare of horses and on behalf of my patients, I fully support this legislation.

A few years ago I asked a regulatory veterinarian what the hardest part of the job was. My colleague's answer surprised and impacted me. She said it was the look of terror on the jockey's face in the moments just before the horses are loaded into the starting gate. She said they circle their horses directly in front of her while nervously asking "Is it okay?", "Everything all right?", while knowing that my colleague has the authority to scratch any unsound horse and this is the last

chance to detect the signs of lameness and perhaps save their lives. This veterinarian explained that the riders know full well that the horses they are on are often drugged to mask injury and she knows it too but the regulatory veterinarians are not given access to this critical information and the drugging often falls within permitted use under racing commission regulations. Without being able to evaluate the horses' soundness while drug free neither veterinarian nor rider can confidently identify the horses that have a high risk of breakdown. She said that daily occurrence was the hardest part of being a track veterinarian.

The New York State Task Force also noted a concern that the jockeys may fear retribution for reporting that the horses that they are riding before a race are unsound. The following excerpt of the analysis of a racehorse's fatal breakdown is found on Page 19 of the Task Force Report:

> "A review of the race video indicated that Inismore appeared to be traveling poorly from the start of the race and pre-examination findings indicated a noteworthy change in this horse's clinical presentation for the race in which she was subsequently injured. A follow-up interview with the jockey indicated that he recognized that the filly was unsound in the post parade, but did not report it to a racing official to initiate a scratch for fear of economic reprisal (manifested as lost riding opportunities form trainers). Despite his reservations about Inishmore's soundness, the jockey rode her competitively during the race. The Task Force is troubled that a jockey persevered on a horse he believed to be unsound, risking himself and others on the racetrack. Based upon the information provided, the Task Force believes that represented a missed opportunity to prevent this injury."

Horse racing can be a humane and wonderful sport for the horses and for the horsemen as well as a thriving business. The good news is that the solution to improved health and safety is already available to every racehorse in this country. It can only come when the standards of veterinary practice are adhered to at all times by the veterinarians who serve their needs so that racehorse describes the type of athletic patients we treat as opposed to a diagnosed condition to be treated with drugs. Adherence to these standards and appreciation of the benefits of protecting horses from injury while enhancing their performance through optimized health and fitness can only emerge if drugs are banned in the sport. This critical change can only come through The Horseracing Integrity and Safety Act of 2013.

Lasix Drug Use in Race Horses

Lasix (Salix or furosemide) is a powerful diuretic that is administered to racehorses approximately four hours before race time. It is used as a presumptive aid to prevent hemorrhage in a horse's lung when it races. Lasix is banned in all other major international racing jurisdictions. This drug is known to have performance-enhancing effects on racehorses. Lasix became popular with trainers not because it prevents bleeding but because it is recognized as a performance enhancing drug.

While only a small percentage of racehorses have ever been definitively diagnosed with severe exercise induced pulmonary hemorrhage ("EIPH"), over 98% of horses racing in America today race on this performance-enhancing drug. Despite its pervasive and continuous use, Lasix has not ended EIPH in the small percentage of horses that are severely affected.

The permissive use of Lasix has however, led to an under-reporting of the true incidence of this condition. Previously when horses had to be examined by regulatory veterinarians to diagnose EIPH in order to be permitted to use the performance-enhancing drug, trainers were eager to report their horses as bleeders and who could blame them? It was a common practice for trainers to illegally take a blood sample from a horse and squirt some of this blood up its nostril after training exercise to make it appear as if the horse had bled from its lungs. Officials, upon seeing this evidence would declare the horse a bleeder. Today many horses race on the drug and experience EIPH nevertheless, but the trainers resist reporting this genuine medical condition to authorities because the horse will automatically be placed on the regulatory veterinarian's list and be banned from racing and speed work until time has passed and official veterinary examination and monitoring during training demonstrates fitness to resume racing.

Necropsy reports that have been made public have reported the finding of extensive pulmonary congestion and hemorrhage and yet we never see statements made by racing authorities about the clear failure of Lasix to prevent bleeding and asphyxiation associated with these racehorse fatalities. When horses are asphyxiated during speed work they will suffer catastrophic musculoskeletal injury because they experience a condition that has been compared to waterlogging or drowning which fully deprives them of oxygen while galloping at full speed.

Lasix has contributed to many racehorse health problems including generalized dehydration; electrolyte imbalance and depletion; cardiac arrhythmias; cardiac failure; heat stroke and exhaustion, racing fatigue and poor performance in some animals yet performance enhancement in others. My own pilot study revealed an effect on a horse's blood concentration that closely resembles the known effect of erythropoietin ("EPO"), the well-known and universally banned performance-enhancing drug.

The evidence that we have clearly shows that in the period following the permissive allowance of Lasix and other drugs' administration in all USA racehorses, we have seen an undeniable decline in general health, racing fitness, soundness and career starts for our horses. We have also realized a rapid decline in the international perception or reputation of the USA bred and managed thoroughbred as breeding stock and as athletes. Our equine "product" is universally perceived internationally as being inferior, that they rely on drugs to train and race, that their race records have little meaning due to the use of drugs, and that our thoroughbreds are fundamentally and intrinsically unsound. The international horsemen regard our breeding programs as ones that produce bleeders due to the breeding stock having raced on Lasix, which makes their race record

and intrinsic soundness appear dubious. When I consult at international venues the question that I am always asked is why the United States allows the use of drugs and how can I possibly provide effective veterinary services in such an environment.

EIPH, or NPPE, which stands for "negative pressure pulmonary edema", conditions described in medical literature, are not primary diseases. They are pathological conditions that can occur as a consequence of many underlying problems. One undeniable underlying cause is upper airway obstruction which can be due to an inherited condition called laryngeal hemiplegia (roaring); it can be caused by abnormal positioning of the tongue and subsequent displacement of or injury to the soft palate due to harsh riding and the natural avoidance of a bit; it can be the result of lung or bronchial pathologies including infections or allergies; it can be caused by lack of cardiovascular fitness and generalized fatigue, and is associated with many other conditions including musculoskeletal unsoundness and anti-inflammatory and other drug administration. Until the cause of EIPH is recognized and removed, all treatments are going to be ineffective. Just as we too often see for lameness problems in racehorses – trainers and veterinarians reach for drugs to treat the symptoms of disease while abdicating their responsibility to determine its cause. I see little chance for the occurrence of EIPH to be eliminated until we observe the legal standards in practice for all veterinarians who work with racehorses on behalf of the individual horses and in professional compliance as the public expects. There is neither a short cut nor an ethical way around the appropriate standards of veterinary care applied to each individual horse. The Horseracing Integrity and Safety Act of 2013 will achieve that result.

There is more scientific evidence to suggest that Lasix does not prevent EIPH in a statistically significant way than there is in support of its use as an EIPH preventative. The proposed theory that

Lasix advocates promote in support of permitting its use in every racehorse has been clearly disproved and this has been published in the scientific literature. You will find summaries of scientific papers in the appendix of this testimonial record which evidence this scientific conclusion.

There is also abundant professional literature going back at least thirty years to document many serious health problems linked to Lasix administration. My own review of scientific publications discovered over two hundred scientific papers that suggest a link between Lasix use and - increased risk of fracture; loss of electrolytes leading to cardiac abnormalities and other medical crisis and deaths; pathological fatigue and weakness; poor recovery from exercise; and other performance affecting or life threatening consequences associated with this drug's use. You will find summaries of scientific papers in the appendix of this testimonial record which evidence this scientific conclusion.

Dehydration and the loss of vital electrolytes is the mechanism of action of this potent diuretic. But until we keep and analyze all veterinary record data on every racehorse, we will never be able to know the true statistics related to the causal effect of Lasix on our racehorses' deteriorating health and deteriorating performance. Horses die of sudden cardiac failure every year, typically following speed work exercise or racing but these cases are typically categorized as "idiopathic" which means of undetermined cause and yet neither investigations are made, nor statistics kept on the possible relationship between Lasix administration and cardiac failure. The human and general scientific literature and even the package insert that accompanies this drug warn of this potential life threatening complication.

The statistically significant studies that have been conducted and published conclude that Lasix is performance-enhancing in horses. You will find a summary of a scientific paper in the appendix of this testimonial record which revealed this scientific conclusion when it evaluated the performance of over 22,500 racehorses. This undisputed fact underlies the loss of international respect for our top horses' racing performances as being influenced by this performance enhancing drug.

Since there are many causes of EIPH there will be no single drug type that will provide a cure. In fact the cure may not come in the form of a drug at all. We have gone too far down this unproductive and unscientific path which has led to the dismal state of safety for horses and riders today. The only solution is to return to a well-being centered business of horse management, breeding and racing. It will not be business as usual and many trainers and owners will not be happy with the enforcement of drug regulations that insist upon standards of practice being adhered to for management of all racehorses. I believe that the true horsemen will rise and prosper in an industry based upon the foundation of the horses' optimized health and intrinsic racing ability.

A ban on Lasix would improve the health and welfare of the horses, remove the most severely affected animals from the sport and the breeding programs, restore integrity and fairness to the sport and level the playing field without forcing honest horsemen to use the drug just to be able to compete, while putting the United States racing industry back in line with all major racing jurisdictions internationally. The Horse Racing Safety and Improvement Act of 2013 allows for a fair and safe transitioning period for horses that have already become dependent upon the drug for their performance and by allowing them to continue using it for a reasonable time until it is fully banned.

Anti-Inflammatory Drugs: Corticosteroids and NSAIDS

Anti-inflammatory drugs are often administered by veterinarians at the trainer's request in order to enable training and racing of unfit and unsound horses. These drugs can mask the signs of injury and physical instability thus predisposing horses to catastrophic breakdown. They should be restricted for use in treating diagnosed conditions and used only in accordance with the standards of practice and as appropriate and responsible therapy by licensed veterinarians. Examples of the most commonly used drugs of this class would include NSAIDs such as phenybutazone; Banamine; and cox-2 inhibitors. The Horseracing Integrity and safety Act of 2013 would ensure that these standards are strictly adhered to by veterinarians through its requirement that a valid veterinarian-client-patient relationship is only context in which these prescription drugs may be administered to racehorses.

Corticosteroid abuse in racehorses is rampant. These potent anti-inflammatory and pain reducing drugs can interfere with the body's natural ability to heal tissue and remodel bone in response to training and racing and their indiscriminate administration by veterinarians and trainers often leads to irreparable osteoarthritic damage to the horses' joints leaving the horse with permanent lameness. Interference with the natural healing process and masking pain has enabled the widespread practice of overtraining unsound horses and introduces great risk to the horses and riders' safety. Review of postmortem records of horses that died in racing often reveals a history of corticosteroid induced pathologies.

The New York Task Force, in their review which was conducted by order of the Governor and in response to the public outcry over a high number of fatalities at Aqueduct racetrack found that the

abuse of these injury masking drugs was a likely contributor to the fatal breakdown of several racehorses.

In their report on Page 17 it states:

> "Given the diagnostic workup and an IA corticosteroid injection of the left front fetlock seven days prior to the race, the Task Force questions whether Speight of Hand should have started. Based upon the information provided, the Task Force believes that it is likely that an opportunity may have been missed to prevent this injury. Specifically, the interval from treatment to race was insufficient to assess the horse's response to treatment. Also, the pre-race examination findings were likely confounded by this treatment."

I have been a veterinary consultant for numerous racehorse patients that have had their joints destroyed not by the sport, but by the reckless use of corticosteroid injected directly into acutely or chronically damaged joints and tendons. These drugs are administered so frequently in many racehorses and with reckless abandon for the welfare of the horse that the cartilage erodes and the joints fuse. In some patients life threatening metabolic and hormonal abnormalities occurs. Corticosteroid administration is also associated with the development of laminitis in horses. Corticosteroid and Lasix administered together as is so often the practice with racehorses can lead to drug-induced debilitating or life threatening electrolyte imbalances and loss of calcium.

Typically aged at two to six years, racehorses present as young, vibrant, physically whole, metabolically active and rapidly developing animals with the natural ability to remain healthy and sound. Just looking at the rampant unsoundness seen at our race tracks makes it clear that our currently permissive and indiscriminate drug use is causing great harm. These are not untoward or rare side effects. This is precisely what veterinary medical science informs us will occur when we use these drugs in this indiscriminate and anti-therapeutic way. This is the reason that such drugs

are restricted for use only by licensed veterinarians in the first place. This is also the reason that the standards of practice, the veterinarian-client-patient relationship, and the Veterinarian's Oath must be honored when administering drugs to racehorses. The Horseracing Integrity and Safety Act of 2013 will ensure this ethical standard is enforced.

Illicit Drug Abuse in Horse Racing

The United States horseracing industry also suffers from the abuse of drugs and substances that are strictly illicit. Such substances would have no responsible use in racehorse practice and they enhance performance. Recent examples include the detection of a drug called dermorphin which is reported to be much more potent than morphine. It has the unique effect in horses of increasing speed. An exercise rider was killed when the horse he was exercising during training hours fatally broke down, breaking both front legs. This horse was reportedly trained by a horseman who had been notified that the testing laboratory had detected dermorphin in another of his horses yet he was allowed to continue to train and race after obtaining a stay of his suspension. This tragic incident and loss of human and horse lives underscores the need to have a central regulatory body that has the authority to enact swift penalties for drug violations of this most serious kind.

Cheaters will always seek out the next substance to use to gain an unfair edge in horse racing. For this reason we must pool our national resources in technology, science and expertise so that we can have the greatest impact to deter and detect attempts to win races by using illicit substances. The United States Anti-Doping Administration ("USADA") is the only agency with the expertise and record of success required to police the sport of horseracing in the United States. The Horseracing Integrity and Safety Act of 2013 will be able to designate the best independent authority to regulate

the sport. This is a choice that would never be possible by consensus of the numerous state regulatory agencies in the highly unlikely event that they decided to create a national regulator.

At the recent House of Representatives Commerce Committee hearing, the veterinarian who testified on behalf of the American Veterinary Medical Association ("AVMA") offered that one reason he opined that the anti-soring bill ("PAST") was necessary is because an industry is unable to police itself. It is another example of an equine sport having regulations in effect that are not enforced and where most of the inspectors are provided by the industry itself. The same inability to be capable of policing one's own industry is at the foundation of the high rate of death and injury in horse racing. The Horseracing Integrity and Safety Act of 2013 will resolve this problem by establishing an independent regulator for the sport.

Veterinary Record Keeping Requirement

The purpose of a medical record is simple. It is to protect the patient. While state veterinary boards define and detail the requirements in record keeping for all veterinarians, the principle objective is to record all data so that records not only reflect objective test results and diagnostic and therapeutic treatments and medications, but also assist and reveal the thought process of the licensed veterinarian. The fact that few records outside of billing records are ever even made for these racehorses betrays the fact that many racetrack practicing veterinarians are seemingly not applying a clinical thought process to help the horse to recover from illness or injury. They simply report the administration of drugs without any evidence of a plan or thoughts about the clinician's responsibility to always deliver veterinary service to restore or protect their patient's health.

Electronic record keeping can be completed by veterinarians and horsemen in just a few minutes a day. The collection, storage and transfer of this critical veterinary record data for official use would also facilitate its seamless and immediate availability as horses move from one race track, state or country to another. This transparency would also provide proof to the public that racehorses are being treated with the same high standards of veterinary practice that it expects through strict adherence to regulations as defined by each state's department of professional regulation as a condition of veterinary licensing. No examination or diagnosis that supports the appropriate choice of a drug? Then no drug administration should appear in these records.

More and more we are discovering that products are readily available and are being marketed and sold to racehorse trainers that may have evaded official classification as drugs. These substances are marketed under the guise of "supplements" but many promise performance enhancing benefits. Many horsemen's and racing journals contain advertisements for these products, in stark contrast to their proclamations that they are opposed to all performance enhancing practices and in favor of ridding the sport of such cheating. The requirement of keeping complete records on everything administered, fed, or applied by any means to a horse would close the current loophole in the detection of illicit injury-masking and performance-enhancing substances. Everything but "hay, oats and water" should be required to be recorded in real-time each horse's electronic record. Any evidence of the administration of a substance or treatment of any kind that is absent from the report should trigger immediate penalties against the trainer independent of any positive drug test finding. The strict adherence to record keeping requirements should be a condition of the trainer and veterinarian's pari-mutuel license. This record keeping requirement is addressed in the Horseracing Integrity and safety Act of 2013's insistence that the veterinarian-client-patient relationship must be in place for all veterinary practices. This would include record keeping which contains the

management history for each racehorse patient and any so-called supplement fed to the horse by the trainer.

Public Perception and Drugs in Horse Racing

Horse racing is losing former fans rapidly while gaining few new ones. The public's perception and often indeed the reality of horses being drugged in order to enable racing can only be removed by banning all drugs on race day and in the days leading up to races through a zero tolerance in drug testing. In my personal life when I meet people who have nothing to do with horse racing, the one question I know I will be asked is- why do we allow trainers to drug horses so they can race, and why would I be involved in any so-called sport that cares so little about the health and safety of the horse? Indeed, the public may choose to take matters into their own hands as they did for greyhound racing when similar animal welfare concerns went unaddressed by the sport's regulators, despite repeated promises to the contrary. Voters chose to outlaw the sport in their states and similar talk has begun amongst the public to ban horse racing since it repeatedly fails to address the serious animal welfare related issues. The public has had enough. I believe that the Horseracing Integrity and Safety Act of 2013 has the potential to literally save the industry from a potential widespread ban that could occur if this legislative solution is not enacted.

Transparency

The uniquely sequestered nature of the back side of a race track prevents the public (and state veterinary licensing boards) from seeing what goes on behind the guarded stable gates. The only evidence available to review in order to decide if the sport of horse racing has integrity and treats

horses humanely comes when the public watches the races. The public outcry for reform of this industry is the direct result of horrific breakdowns and deaths that have occurred in full public view. Also visible is the never ending procession of crippled horses arriving at equine shelters that require lifelong care because permanent injury leaves them unable to be appreciated by second homes as riding horses. The public is the largest supporter of these equine shelters and they are asked to donate money regularly to enable permanently injured horses to live out their years in full retirement. This burden is not only unfair, it is impossible to meet.

The Horseracing Integrity and Safety Act of 2013 will provide the public with assurances that have been long overdue. Assurance that the horses are racing without injury-masking and performance-enhancing drugs. Assurance that any trainer, owner or veterinarian who violates the rules will be swiftly and permanently removed from the sport. Assurance that only responsible veterinary services that improve or protect the horse will be provided to racehorses and that the state veterinary boards are monitoring and enforcing the regulations that define standards of practice for veterinarians who work with racehorses without interference from racing commissions.

Businesses including those of horse trainers, that have nothing to hide, hide nothing. In addition to the clear benefit to individual horse health care and safety, the keeping and continuous review of records of the real-time reporting of everything but the proverbial "hay, oats and water" administered to these horses will be essential to regaining and nurturing the public trust in horse racing. State veterinary boards could also use these records to investigate, enforce and oversee the standards of practice for racehorse veterinarians.

A Change in Business

The sport of horse racing is expensive for any owner and when the incentive and ability to acquire, race and drug-abuse lame horses for profit is removed the sport will shrink in size but strengthen by becoming more appealing for owners who want to become involved in an ethical and quality sport and business. This is where the strength and future of the industry lies. The cost to breed, train and race horses is necessarily high. Risk will always be great. Just as there is a significant chance that an impressively bred and extremely expensive yearling may never succeed on the track, racehorse owners must also accept that the risk of a horse developing unsoundness that may limit or end its potential as a racehorse is all part of the sport. Drugging it to mask injury and race while unsound will no longer be an option for owners and trainers through this important legislation.

Many trainers and racehorse owners have adapted their business model to fit an industry that expects a high turnover of horses with a high attrition rate through breakdowns or other career ending injuries. They will need to adjust their businesses to value individual horses and manage their stables through an expertly guided health and well-being centered training and racing programs. Veterinarians are well prepared and eager to offer such ethical services to their clients.

Breakdown Statistics

It has been estimated that 24 horses die each week on American race tracks. This calculation came from the comprehensive review of official racing charts. While this figure is extremely disturbing and intolerable in a society that values the humane treatment of animals, the numbers are actually much higher. The omission in this statistic comes from the fact that many horses suffer catastrophic

injury which is not fully realized until the horse has returned to its stall following training. Many of these fatally injured horses leave the track in private vans and simply go missing from the thoroughbred racing database. The record keeping system that I propose would be able to collect these statistics by requiring that every horse leaving the race track be examined by a regulatory veterinarian. The keeping of this data would also serve to alert track officials and the public to trainers that have atypically high breakdown rates so they can investigate and deal with them.

Enforcement

Currently the enforcement of racing regulations through an inconsistent and irregular system of penalties is wholly insufficient and completely ineffective as a means to remove chronic offenders from the sport and to act as a deterrent. The Horseracing Integrity and Safety Act of 2013 will create the essential authority to remove the cheaters from the sport and to levy significant fines for medication violations.

Today most trainers are allowed to serve their short suspensions for repeat drug violations at their convenience while assistant trainers continue to operate their training businesses and race the horses without interruption. Horse owners have little incentive to hire trainers with clean records because the advantages gained by violating the medication regulations seem to outweigh the inconvenience of the trainer of record occasionally taking a forced vacation while business as usual continues at the track. I have provided veterinary services to horses that train at an unlicensed training track in Florida. The stable area looked like a "who's who" of banned racehorse trainers. It is located just blocks away from a major licensed training center so the banned trainers never miss a day and simply keep additional stalls at this facility while service their suspensions. Their assistants are

designated as the trainer of record during these brief periods, but the fact is that the ban does not remove the trainer from the business except in a meaningless technical way.

In nearly thirty years of practice I am aware of only three veterinarians who have been sanctioned for violations related to the drugging of horses with illegal performance-enhancing and injury-masking medications. Each suspended veterinarian continued to practice illegally by treating horses that train at unlicensed training centers or simply moved to other racing jurisdictions.

Referring violators to state and federal authorities for investigation and possible prosecution for crimes will be accommodated more easily with the uniform and unambiguous no-drug rule provided by this legislation. In addition, the motivation of an independent anti-doping regulator will be to win the battle against the cheaters and they will be unbiased by any conflict of business interest which prevails in our current system.

Being a racehorse trainer, owner or veterinarian is not a right but a privilege conditioned upon playing by strict rules. Olympic medals in equestrian events are revoked when medication violations are discovered. In the cases where medals had to be returned that I am aware of, the regulators all agreed that the positive "foreign substance" detected in the horse's drug test could only have been the result of innocent contamination and could not have affected the outcome of the horse's performance and placing. But the rules are the rules and these ethical sportsmen and women accept the severe penalty of Olympic Medal revocation because they know it is the only way to maintain the integrity of the sport. They accepted the absolute responsibility of playing by strict rules when they decided to compete. By contrast, drug violations in horse racing accumulate

with little or no punishment while the monetary gain for winning is much greater than in any other equestrian sport.

The Public Ethic

The moment many racehorses fail to be of business value to their owners, they instantly become the burden of the charitable sector. We know the public cares about the wellbeing of racehorses because the overwhelming demographic that supports equine retirement shelters are Americans living on social security or other limited and fixed incomes. These ethical people will sacrifice their own needs in order to send a donation to a shelter because they want to know that former racehorses can have a safe retirement. These good people do not want to ride or own a horse, go to the races, or bet on one. But they will send money to charities to help buy some hay for former racehorses. To me this speaks emphatically to say that the American people care deeply about these animals and they want to know that racehorses are safe and well cared for. The Horseracing Integrity and Safety Act of 2013 will give them that assurance. It will also ensure that when horses retire from the sport they can do so with their bodies intact so they can transition to pleasure riding or horse show homes instead of becoming an instant public burden.

Scientific Publications In Support of My Testimony

I. Effect Of Furosemide On Performance Of Thoroughbreds Racing In The United States And Canada. Gross DK, Morley PS, Hinchcliff KW, Wittum TE.

II. Furosemide Reduces Accumulated Oxygen Deficit In Horses During Brief Intense Exertion. K. W. Hinchcliff, K. H. McKeever, W. W. Muir, and R. A. Sams

III. Furosemide-Induced Changes In Plasma And Blood Volume Of Horses. K. W. Hinchcliff, K. H. McKeever, W. W. Muir III

IV. Effects Of Dehydration On Thermoregulatory Responses Of Horses During Low-Intensity Exercise. J. R. Naylor, W. M. Bayly, P. D. Gollnick, G. L. Brengelmann, and D. R. Hodgson

V. Review Of Furosemide In Horse Racing: Its Effects And Regulation. L.R. Soma1, C.E. Uboh2

VI. Hemoconcentration and Oxygen Carrying Capacity Alteration in Race Horses Following Administration of Furosemide Prior to Speed Work, A Pilot Study. Sheila Lyons DVM, FACVSMR

VII. The Use of Blood Doping as an Ergogenic Aid. Sawka, Michael N. Ph.D., FACSM, (Chair); Joyner, Michael J. M.D.; Miles, D. S. Ph.D., FACSM; Robertson, Robert J. Ph.D., FACSM; Spriet, Lawrence L. Ph.D., FACSM; Young, Andrew J. Ph.D., FACSM

VIII. Fracture Risk In Patients Treated With Loop Diuretics. L. Rejnmark, P. Vestergaard, L. Mosekilde

IX. Soft Palate Problems And Bleeding In Racehorses? The Answer Is On The Tip Of The Horse's Tongue. Robert Cook FRCVS, PhD

X. An Endoscopic Test For Bit-Induced Nasopharyngeal Asphyxia As A Cause Of Exercise-Induced Pulmonary Haemorrhage In The Horse. Robert Cook FRCVS, PhD

XI. New York State Racing and Wagering Board Task Force On Racehorse Health and Safety, Official Report, Investigation Of Equine Fatalities At Aqueduct 2011-2012 Fall/Winter Meet. Excerpt of Pages 16-34, "B. The Individual Fatalities"

Appendix of Scientific Publications By Subject

1) Lasix is Performance-Enhancing: I, II, III, V, VI

2) Lasix is Harmful to the Health and Safety of the Horse in Racing: III, IV, VI, VIII, IX

3) Lasix Use Has Not Ended the Occurrence of Exercise Induced Pulmonary Hemorrhage: V, IX

4) Lasix Increases Risk of Fracture: VIII

5) Conflicts of Interest Affecting Safety In Horse Racing: XI

6) Injury Masking Drug Use and Fatal Breakdowns in Racehorses: XI

7) Regulatory Failure of the Current Horse Racing Industry: XI

[Additional material from Ms. Lyons is available at http://docs.house.gov/meetings/IF/IF17/20131121/101517/HHRG-113-IF17-Wstate-LyonsS-20131121-SD005.pdf.]

Mr. TERRY. Thank you. Mr. Pacelle, you are now recognized for your 5 minutes.

STATEMENT OF WAYNE PACELLE

Mr. PACELLE. Thank you, Chairman Terry. Thank you very much for addressing this issue. I am glad to be on this esteemed panel. I am representing the Humane Society of the United States, and we are an enthusiastic supporter of this legislation.

You know, I think what we are talking about here is appreciation for this sport, appreciation for entertainment, but balancing it with the interest and the needs of the athletes involved; in this case, both animal and human.

Today's New York Times—if I can just direct you to, for a moment, a story about boxing. Reconciling a sport's violent appeal as a fighter lies in a coma. So one fighter is in a coma, and we have got a front-page New York Time's story about it, very appropriately so. Attempts to limit the serious injury and death of fighters should be an important concern of our society.

Last week, Nicholas Mevoli, participating in deep-unassisted diving, died. He was trying to break the world record. If you remember, he went to 236 feet under the water without any breathing assistance. And he died. Now, there is a robust debate about what some of the rules should be about that.

Football, we have had an incredible discussion in society over the last 3 or 4 years about traumatic brain injuries as a consequence of professional football injuries and contacts. As the son of a football coach, I pay very close attention to that issue. These football players aren't dying on the field, they are dying some years later as a consequence of this degenerative brain disorder.

We heard from the official with the anti-doping association about the scandals in cycling, Olympic track and field and baseball. These issues have been headlines in our Nation.

In horseracing, we have two problems. We have catastrophic injuries for these horses on the track, and we have widespread doping of the equine athletes. I want to say very clearly, the Humane Society of the United States does not oppose horseracing. We never have. We have been paying attention to the industry for decades. All of us are here because I think we want to see a balance between success for the industry and proper treatment of the animals and concern for the human participants, the jockeys, in this enterprise.

But what we have seen over decades is an absence of adequate self-regulation, and we are presented with the question, should we do more? Should the Congress do more on this issue? And I want to say that if we are outraged about—or deeply saddened by the deaths of these human athletes in other sports, we should also be outraged and saddened by the deaths of 24 horses every week on American racetracks. Every week. Not once in a while. Every week. We have had drug scandal after drug scandal. You saw Dr. Rick Arthur on the video that was played during Congressman Pitts' statement. He said "It is hard to justify how many horses we go

through." In humans, you never see someone snap their legs off during running in the Olympics. But you see it in horseracing.

The failure for this industry to adopt comprehensive, consistent national standards is a serious problem that has been in the works, decade after decade. This Congress has an opportunity now with the massing of evidence to do something constructive that is not going to be against the industry's interest. It is going to be in the interest of the industry. Any sport that is taking shortcuts, that is allowing routine doping, and that sees this level of injury and death in the animal athletes has a major public relations problem. The sport is in decline in the United States. Other horseracing jurisdictions around the world are in their ascendancy. And they are running horses on hay, oats and water. And when an animal is injured or ill, you address it with a palliative and allow the animal to rest and to heal, not to get on the track and to be running at 40 miles an hour, or 45 miles an hour, often on unforgiving surfaces, often before they are old enough to sustain these injuries and this beating of the—of their hooves on the track.

I have got a lot of incidents in my testimony, but I want to just wrap up, Chairman Terry, by saying just a couple of quick things. This Congress has addressed issues like animal fighting at the Federal level. You have done so in spite of the fact that the States have prohibitions on dog fighting and cockfighting because there are circumstances and cases where we need Federal intervention, the nature of the animal fighting enterprise is national or international. You also just conducted a hearing on the soring of Tennessee walking horses. A Federal law was adopted 40 years ago because of the intentional injuring of horses by physical and chemical means to enhance performance of these horses. This Congress has jurisdiction on this issue. This is a multibillion-dollar industry. Horses move nationally. Hundreds of millions of dollars wagered on these athletes. The name of this bill, Congressman Pitts' bill, is the Horseracing Integrity and Safety Act. That is what needs to be restored. Thank you very much.

[The prepared statement of Mr. Pacelle follows:]

Testimony of Wayne Pacelle

President & CEO

The Humane Society of the United States

before the

House Subcommittee Commerce, Manufacturing and Trade

H.R. 2012, "The Horseracing Integrity and Safety Act"

November 21, 2013

On behalf of The Humane Society of the United States (HSUS), the nation's largest animal protection organization, I submit this testimony in support of H.R. 2012, the Horseracing Integrity and Safety Act of 2013. I express my sincere thanks to Chairman Lee Terry and Ranking Member Jan Schakowsky for conducting this hearing, and offer special thanks to Representatives Joe Pitts, Ed Whitfield, Schakowsky, and Anna Eshoo for introducing this important pro-horse, pro-industry measure. This hearing builds on the testimony and other information gathered during the 2012 hearing conducted before the Senate Committee on Commerce, Science and Transportation on horse racing legislation introduced by Senator Tom Udall.

I want to underscore that The HSUS does not oppose horse racing. We join with many horse owners, breeders, trainers, and racing enthusiasts in speaking out on the broader topic of the welfare of horses within the industry. We seek to promote the proper care of the horses and to minimize on- and off-track risks to the horses, including catastrophic injuries sustained during racing.

Only when the industry takes the necessary steps to put the horses' welfare first will the industry thrive. Any gaming industry that takes shortcuts on animal welfare and that cheats or misleads the public will see an erosion in public support and consequently in the future viability of the sport. Indeed, for a variety of reasons, the horse racing industry is in decline, and in a new social environment where citizens have a wider array of gaming options than ever, it is critical that the industry strive to meet the highest standards of animal care and honesty. This goal is achievable for the horse racing industry, and it's a great hope of mine that it responds to that call.

It was nearly a quarter century ago that I wrote a cover story for an animal welfare magazine about problems in the horse racing industry. As I probed the issue, visiting tracks and talking to horsemen and others within the industry, I was surprised to learn not only of the absence of a national regulatory body for an industry operating on a big geographic plane and engaging in interstate commerce and wagering, but also of the disparity between racing regulation in the U.S. and those in in Australia, Canada, France, the United Kingdom, and other nations also with proud racing traditions. At the time, I wrote about the balkanization by state in horse racing industry oversight, the drugging of horses on race day, the racing of very young horses, unforgiving track surfaces, unacceptable rates of catastrophic injuries, and the declining number of starts per year per horse.

Sadly, these issues have not been settled, and some would argue that some of the problems are even more acute. Now, 24 years later, there have been additional concerns raised about breeding practices that produce faster but more fragile horses who are more vulnerable to breakdowns than more genetically sound horses of earlier generations. And in the years since I wrote that piece, Congress has for the past decade seriously wrestled with the problem of healthy American horses being funneled into the slaughter pipeline, including horses coming from the racing industry. That latter problem highlights both excessive breeding among racing breeds and the challenge of dealing with "surplus horses" cast aside by owners and trainers who don't want to bear the expense of providing lifetime care for the horses. They sell horses to "kill buyers" and make a couple of hundred dollars, or they pass on the cost to the animal welfare community by turning the animal over to a sanctuary or rescue organization.

The Horseracing Integrity and Safety Act of 2013 does not seek to remedy all of these problems. It focuses more narrowly on the drugging of horses in the racing industry and creates an oversight system to develop and implement rules related to drugging of horses. This change in policy is urgently needed because the administering of performance-enhancing drugs is unfair to just about everyone involved in racing – to clean trainers and owners and to the fans who wager on the outcome of races, as well as to the horses themselves. The ethical issues are closely related to concerns raised about doping in a variety of Olympic competitions, professional bicycling, and professional baseball (except that the horses are not willing participants and have no say in the practice). All of these industries have policies against certain types of drug use, and high-profile incidents have left the public concerned about the extent of the problem in sports. It has clouded the legacy of a number of athletes, and caused titles, prize money, and medals to be relinquished.

In addition, reckless use of drugs – used to allow injured animals to compete rather than to rest – creates unnecessary risks for the animals. Rampant drugging of horses to get them into the gate when they should be in the stall may be part of the explanation for the inordinately high rates of breakdowns, compared to the rates of catastrophic injuries tabulated in other racing nations.

This industry has had decades to clean up its act, but it hasn't done so. We are here today precisely because of the failure of self-regulation. This is neither a precipitous government intervention nor an unnecessary one. It comes after the premature deaths of tens of thousands of horses, declining fan interest in horse racing, and a general crisis of confidence in the sport. It is a national industry, and it demands consistent standards rather than the current patchwork of racing regulations. There are 38 pari-mutuel racing jurisdictions in the U.S., with about 100 racetracks, that include Thoroughbred, Quarter Horse, Arabian, and Standardbred (harness) racing. Each state sets up its own rules with respect to medicating of horses, yet horses and their trainers routinely move between the states for races.

Dr. Rick Arthur, the equine medical director for the California Racing Board has stated: "It's hard to justify how many horses we go through. In humans, you never see someone snap their leg off running in the Olympics. But you see it in horseracing."

Imagine a professional sport in which 24 athletes die each week, which is the number cited by reporters with The New York Times after examining racing records for 150,000 horse races from 2009 to 2011. The HSUS believes this data makes an unmistakable case for a national regulatory authority, as the National Football League, Major League Baseball, and other major sports have. This legislation does not call for the creation of such a body, given the budget pressures facing Congress and the anticipated industry reaction to that proposal. Instead, it provides for national standards and independent monitoring of drug use through the existing U.S. Anti-Doping Association (USADA).

The Horseracing Integrity and Safety Act would designate the USADA as the independent anti-doping organization for interstate horse races. USADA, a non-profit, non-governmental agency, is recognized by Congress as the official anti-doping agency for Olympic, Pan American, and Paralympic sports in the United States. This agency would create rules regarding the use of permitted and prohibited substances and develop anti-doping education, research, testing, and adjudication programs. Any racetrack that chooses to offer "simulcast" wagering, where most of the industry's money is made, would first need to have an agreement with USADA. That agreement would include covering the costs of the anti-doping measures. This legislation would cost the taxpayers nothing.

The bill also includes stiff penalties for cheating that apply nationwide: a "once and done" lifetime ban for the most severe types of doping, a "three strikes and you're out" for other serious medication violations, and suspensions for rules violations. Currently each state's racing commission sets its own rules, allowing trainers to escape oversight by simply moving to another state. The bill will ban race-day medication of horses and would be phased in over two years to allow for the industry to make a more comfortable transition. Horses who need drugs to race should not be enlisted into competition with a cocktail of legal or illegal drugs that could put their safety in jeopardy. Good trainers show restraint when horses are fit to run, and that's the simple idea behind this proposal.

The states have varying rules on medicating of horses, and that patchwork has proved dangerous to horses and unfair to racing fans and to responsible owners and trainers. Even the best testing in the United States falls constantly behind as the cheaters in the industry are known to experiment with anything that might give them an edge including Viagra, blood-doping agents, stimulants, cancer drugs, cocaine, "pig juice," and last year's new craze – "frog juice," an amino acid found naturally in certain species of frogs. "Frog juice" (dermorphin) is 40 times more powerful than morphine and is used to mask an injured horse's pain. Steven Barker, a chemist and the head of the state testing laboratory at Louisiana State University has stated, "This drug in horses is an abuse of the horse. It puts the horse's life in danger. It puts the jockey's life in danger. This is an attempt to cheat. This is bad stuff. This is doping."

How can each state develop its own drug-monitoring apparatus to keep up with the drug users in the industry? A single expert association is needed that is both independent and capable of conducting cutting-edge research and rigorous enforcement. We cannot ask each state to develop this kind of resource center. It is impractical and costly and it has proved unworkable.

The failure to adopt proper and comprehensive standards has produced very tragic case incidents and troubling fact patterns:

- According to one racing blog, "[d]uring the 6 week career of one horse, Coronado Heights, he raced 3 times. During the last 25 days of his life, he was given 24 separate injections and 9 different drugs before he suffered a fatal injury on January 12, 2013 during a race at Aqueduct. Between his last start and the start in which he died he was treated with xylazine, dormosedan, DepoMedrol, hyaluronic acid, flunixin, bute, Estrone, Adequan, vitamin B1 and calcium. Everything done to the horse was 100% legal."

- On January 21, 2010, Melodeeman, a seasoned veteran horse who had amassed over $250,000 in earnings, entered the gate at Penn National. Racino wagering had allowed this horse to run for $18,000 in a $4,000 claiming race. According to an exercise rider, the Thoroughbred was "clearly lame" prior to the race (*NY Times*, 4/30/12). Melodeeman broke his cannon bone on the homestretch and was euthanized at the track. The necropsy revealed that not only did the horse have degenerative joint disease in the lower part of both front legs, but the fatal fracture was alongside an earlier bone break that had been mended with three screws. They also found the banned sedative fluphenazine in his system. It is highly unlikely that Melodeeman's owner (his sixth) and trainer were unaware of the horses' condition before forcing him to race.

- Doug O'Neill, who trained the 2012 Kentucky Derby winner, is perhaps one of the highest profile examples of what's wrong with racing. According to published reports, over the past 14 years and in four different states, O'Neill has been cited for more than a dozen violations for using performance-enhancing drugs. And these violations represent only the number of times he was caught doping horses, not the number of times he likely

drugged them. Not surprisingly, the horses he trains are prone to breakdowns that endanger both the horses and jockeys. Despite his disturbing record, O'Neill continues to train at tracks around the country. The current regulatory scheme does not weed out bad actors.

- Rick Dutrow, who trained the 2008 Kentucky Derby winner, Big Brown, has been cited for nearly 70 violations at 15 tracks in nine states, including for using powerful painkillers on horses he raced. If the top trainers in the industry are resorting to widespread drugging of horses for performance-enhancement purposes or to allow injured horses to race, it's clear that these abuses are happening in the lower-stakes races, too, especially the claiming races that The New York Times investigation examined.

In the United States, there are over three dozen racing jurisdictions, all with different medications permitted and different levels of those medications allowed, different penalties for violations, different rules on which horses are tested for drugs, and different laboratories used to do the testing. Additionally, it is perfectly legal for owners or trainers – the only people who could be in a position to know if a horse had been legally or illegally doped – to bet on their horses. They might lose the purse money and receive a fine, but neither the cheating trainers nor their connections who bet on their highly doped-up horses ever have to give back the money they won through the betting windows.

The use of illegal substances is not the only problem. Legal therapeutic drugs are also problematic as they can allow a horse to push through pain, intensifying an injury which can lead to breakdowns, career ending injuries, and death. In addition to side effects and unfair advantages, overuse and abuse of legal drugs can mask the presence of more dangerous drugs or hide existing injury or lameness. Just as in humans, pain is a biological mechanism that allows horses to protect themselves from further injury. This compensatory function is undercut by doping, and horses and jockeys incur a significantly greater risk of injury and death.

About two-thirds of Thoroughbred races are known as claiming races, which are really dumping grounds for horses who have injuries too severe to let them continue to run at a higher level. As the horses drop through the ranks, amateur trainers pick up these horses and see what they can get from them in the way of performance. If drug doping and injections into fractured joints occur in the racing competitions with higher purse levels, the bottom level, end-of-the-line races are saturated with it. Racetracks have increasingly added casino gambling to their operations, resulting in higher purses but also providing an incentive for trainers to race unfit horses, the majority at the lowest tier-claiming races. According to The New York Times, as many as 90 percent of horses who break down had pre-existing injuries. The Times analysis found that horses in claiming races have a 22 percent greater chance of breaking down or showing signs of injury than horses in higher-grade races.

Each state's racing commission sets rules for its state, resulting in a patchwork of confusing regulations. For instance, necropsies are considered vital to assessing if an existing injury caused a deadly breakdown. Unfortunately, only 11 states require them. Additionally, not all states require the publication of horse racing deaths, and rules that specify allowable drug levels or how close to race time a drug can be administered vary as well. According to the Times, state veterinary boards rarely discipline veterinarians who violate racing rules. In New York, only two of the board's 125 disciplinary actions over the last 10 years involved racehorse veterinarians. In Kentucky, Dr. Rodney Stewart's racing license was suspended after he brought cobra venom, a banned nerve-deadening agent, onto the grounds of Keeneland racetrack. Dr. Stewart retained his veterinary license. Dr. Phillip Kapraun kept his Illinois veterinary license after he, too, was fined for possessing snake venom. The following states do not require pre-race inspections of horses and do not perform post-mortem inspections on horses that die while racing or training: Arizona, Arkansas, Nebraska, Ohio, and Oregon.

Although national standards on which drugs can be administered and when vary around the globe, there is no ambiguity when it comes to the United States' philosophy on racing. In the U.S., performance-enhancing drugs such as Lasix are administered to virtually every horse that races, a circumstance at odds with standards imposed virtually everywhere else in the world. Unlike the U.S., many countries do not allow horses to race with any drugs in their systems on the day of the race. On race day, it's hay, oats, and water for them. In the United States, however, Lasix and a multitude of other drugs are allowed to be used on the same day as the race as long as the amount of the drug in the horse's system is under the threshold level set for each medication in that state.

"The major difference between the U.S. and the rest of the world, and especially Europe, is that here you back up the veterinary truck to the barn after the horse is entered," said Dr. Rick Arthur, the equine medical director for the California Horse Racing Board. "We did an analysis at Hollywood Park last year and found that the average horse got 5 ½ injections after entering the race before they got their Lasix shot. You don't get that in the rest of the world, where there is a much different way of doing things." Dr. Roland Devolz, a veterinarian with France Galop, said, "Welfare in Europe and welfare in the U.S. is same word, but welfare in Europe means to train the horse without any chemicals and make him race if he can face the challenge....[M]aybe they [U.S. trainers] are frightened that without medication, they will need to do more work, take more care in their training. In Europe, we are of opinion that medication and drugs are not a tool of training. In your country, when there is a problem during training they use medication to mask or solve the question. They forget about the concept of horsemanship."

Racing without same-day medications is thriving around the globe, while here in the United States doped horses are pushed to race and are breaking down with unacceptable frequencys. Between 2005 and 2011, wagering in North America decreased by 25.5 percent, while it increased 20.7 percent in France, where race-day medications are illegal. Statistical data shows that the average starts per year for horses in countries that do not allow doping is increasing

while the average field size and starts per year are decreasing in North America. There is no question that the horses who are forced to race under the influence of various performance-enhancing drugs are not only being pushed beyond their physical limits but are unable to perform as well as their drug-free counterparts in numerous countries around the globe who do not share our culture of doping.

The racing industry has resisted significant reform efforts, and it is damaging the reputation of the industry. . I fear that continued obstructionism will produce more high-profile incidents and damaging exposés and not a stronger position for the industry. I hope you will help do what's best for an industry that has failed to establish comprehensive national standards to prevent widespread cheating within its ranks. We shouldn't put horses' lives at risk when there is an alternate path for this industry. I hope you will work on a lasting and meaningful solution. Thank you.

Mr. TERRY. Thank you. And that—now, we will proceed to the question and answers where we get to ask questions, and you get to answer them. We also have an issue with any minute, the buzzer is going to go off for votes. So we will see how far we can get with our questions. So, Mr. Overton, my question is for you. Follow-up on what Mr. Pacelle just said. There are 38 separate regulatory entities. I am a Tenth Amendment guy. I like to have States have their powers and their rights. So if we can have 50 States with regulatory powers, what is the failure of 38—is there a failure of these 38 racing commissions, and should there be a Federal law?

Mr. OVERTON. And——

Mr. TERRY. Yes, the microphone?

Mr. OVERTON. Mr. Chairman and members of the subcommittee, definitely there is a problem in all 38, if not all 50, jurisdictions. It is not intent. It is by design. There is no enforceability between States of having regulations that are uniform. We do need uniform. And I would just like to point out that doing it with USADA, we are not talking about a Government takeover of their independent group. And they have demonstrated that they would have the enforceability. And one of the issues with that enforceability today, we have seen serious violations of trainers throughout the years. The way they would handle it——

Mr. TERRY. When was the last time there was a trainer suspended or kicked out of the business because of a violation?

Mr. OVERTON. That is——

Mr. TERRY. Do you know?

Mr. OVERTON. There have been quite a few. There are some that have stays right now in the court system.

Mr. TERRY. OK. The other question is, do the racing jurisdictions share information so that they have information on one trainer or barn that is shared with another as they go to the next racetrack?

Mr. OVERTON. Only if there is an investigation.

Mr. TERRY. OK.

Mr. OVERTON. We do share with RCI any rulings that come out.

Mr. TERRY. Thank you.

Mr. OVERTON. Thank you.

Mr. TERRY. Mr. Tygart, since you are here, let us ask questions. You mentioned in the world, anti-doping code has been revised a number of times to keep up with the drugs and the appropriate testing for them. So how has the code been modified over time, and are there new drugs and tricks of the trade that need to be addressed, both in your jurisdiction and as you would think for the horseracing industry? Because one of the issues here—and I have an article here from—buried somewhere in my paperwork here—about a compounding entity that specializes in changing the drug just enough that it can't be detected. So how do you keep up with those things?

Mr. TYGART. Thanks for your question, Mr. Chairman. The code itself, which is the umbrella uniform policy has been changed now three times. The third version was just approved down in South Africa where I came from you mentioned earlier. The list of prohibited substance and methods is published every year. There is a democratic process, an expert group that provides information on what substances meet the criteria, whether it is performance en-

hancing or not, whether it is against—you know, violates the health and safety of athletes, and whether it violates the spirit of sport and any of those——

Mr. TERRY. And is that wholly applicable to the horseracing industry?

Mr. TYGART. It very well could be. I mean, I think part of the process that this legislation would allow for would be that consultation process to come up with exactly what that criteria would be, and then have a democratic process every year that would then publish in advance. So our list is published every October, going into effect that following year. Listen, I think cheaters who want to win and there is a big prize at the end to win, will go to great lengths to ensure that they are not caught by the testing system, even the best testing systems that may be in place. But what you have got here are, you know, labs where 2 of the 16 don't meet even the industry's—I am sorry, 2 of the 16 are the only ones that meet the industry's standards for uniformity. So the——

Mr. TERRY. Two out of sixteen.

Mr. TYGART. Two out of sixteen, 12.5 percent. So you have got 87 percent that don't meet the RMTC's own ISO accreditation and laboratory operating procedures.

Mr. TERRY. Well, let me stop you there, because I only have 30 some seconds. Mr. Hanrahan, you mentioned that there is only a small percentage that fail. But if it is true that they are not even testing for the right things, is that a reliable number for us?

Mr. HANRAHAN. Eighty-one——

Mr. TERRY. Percent of failures?

Mr. HANRAHAN. Mr. Chairman, they are testing for known substances. And I would point out on the issue for example of dermorphin, which was an unknown substance, that—there was some human intelligence. There was some suspicions, and samples were sent to the lab and the lab developed the test to identify dermorphin. So the labs do work ahead to try and identify substances.

Mr. TERRY. All right. Thank you. Mr. McNerney, as Acting Ranking Member, you are recognized for 5 minutes.

Mr. MCNERNEY. I would like to ask the Chair to recognize Mr. Yarmuth from the great State of Kentucky, home of the Derby.

Mr. TERRY. Absolutely. With the unanimous consent, so ordered.

Mr. YARMUTH. Thank you, Mr. Chairman, and thanks to my colleague for yielding. As Mr. McNerney said, I represent the Kentucky Derby and Churchill Downs. And certainly thoroughbred breeding and horseracing is a signature industry of Kentucky. So I also represent owners, trainers, jockeys, grooms and of course a lot of track workers and of course a lot of horses as well. They don't get to vote, usually. I applaud all of you for your concern about protecting the health and safety of the horses and the riders, and also the integrity of the sport. I appreciate that very much, and I share all of your concerns.

I do have a couple of specific concerns about this particular legislation. And, Mr. Tygart, I want to start with you. It has already been established that your background, it is not in horseracing. Your organization is not in horseracing. So I am a little bit con-

cerned about the accountability that USADA might have if empowered under this legislation. To whom is USADA accountable now?

Mr. TYGART. Well, we currently have Federal appropriation. So we can, you know, obviously be called up and testifying about any issues. Our legal process goes through a panel of independent arbitrators. So, ultimately, any decisions on a case, whether someone committed a doping violation or not, athlete or other person, trainer, et cetera, would ultimately go to independent arbitrators. Obviously, that would be a written decision publicly available. And, of course, you know, we are not immune from media scrutiny at any return.

Mr. YARMUTH. Right. And obviously, I am not questioning your capabilities or integrity. I am just trying to establish this. Because a lot of times in many cases in the commercial world, we have empowered independent agencies to set rules and regulations, and they are totally unaccountable. And that is a problem. So under this legislation as you understand it, if you were given this authority, if there were questions about regulations you handed down, what would be the process through which—whether it was owners, vets, tracks, whoever would appeal those, or somebody else to review the regulation?

Mr. TYGART. Yes. What we would envision is not unlike the process I described in my testimony with the World Anti-Doping Agency where you have got some input at the governance level of people that are free of conflict of interest similar to the way our board is set up today. I think we would be open to having whether it is a wholly un-sub or additional board members added that have the type of experience that you heard in some of the testimony on that. They would obviously have to be free of any conflicts to ensure the independence. That is how we currently are operating. I think whether the legislation adds a piece of oversight or whether the agreements that the legislation calls for between us and the major stakeholders of the industry. And those agreements certainly though could be spelled out. Some accountabilities to ensure proper financial management, proper governance, those types of things. Again, not on a case-by-case basis. You don't make policy on, let us say, a single high-profile case—during the middle of that case. You would want the process that has been agreed to prior to that particular case coming up to resolve itself. And then if there is any effort to revise—amend like we did with the WADA code, then you have that process built in.

Mr. YARMUTH. All right. Thank you. One of the provisions of the bill is that there is a ban on any medication on race day. And I know Mr. Hanrahan, you have made the case that there may be a justification, particularly with regard to Lasix to administer on race day. Could you kind of in the minute and 14 seconds we have left talk about that and why that may be problematic to put in the legislation? It may be counterproductive?

Mr. HANRAHAN. As I alluded to, Lasix is in fact the only race day medication that is allowed, with a couple of minor exceptions for adjuncts. As the RCI's model rule exists now, and as I am sure you are aware, Kentucky is one of the States that follows that model rule that allows Lasix, but is only administered by State veterinarian or regular veterinarians. It is not issued or administered by

a private veterinarian. The dosage is limited. The time that it is given is limited. So it has been a very effective model rule. And that is just symptomatic of how the model rule process works in terms of developing an industry consensus, whether it is on Lasix, whether it is banning steroids, et cetera.

Mr. YARMUTH. And in 10 seconds, has that been successful in terms of facilitating—not necessarily enhancing performance on the horses, but protecting the horse on race day?

Mr. HANRAHAN. I would say yes, sir. It has been very perfective in Kentucky and those States that have it. There was a little roughness getting it in place. But it has been very effective. And Lasix is a very effective drug in preventing bleeding in horses, and that protects the horse and in turn protects the jockeys.

Mr. YARMUTH. Great. Thank you, sir.

Mr. TERRY. Thank you. And now, there is about 5 minutes left with how many people not voting yet?

VOICE. Three hundred.

Mr. TERRY. Three hundred and seventy-five. So we have probably got another 5 minutes. So, gentlelady from Tennessee, the vice chairman, is recognized.

Mrs. BLACKBURN. Thank you, Mr. Chairman. And I will do my best to not take all of my time and yield back so that others may get in——

Mr. TERRY. Why don't you yield it to Joe?

Mrs. BLACKBURN. And to the queue. OK. If we are not finished, I will yield it to Joe. I think we can all agree, we are all interested in the welfare of the animals. We are interested in the integrity of the sports, whether it is horseracing or walking horses or the steeple chase that we enjoy in Tennessee, or when I was a kid and in 4H Club, the quarter horses in the barrel racing and all of that that my brother did. It is an important part of life for those of us who have grown up on farms or who live on farms or have that in our district. And so, Mr. Pacelle, I want to come to you for just a moment and ask you a little bit about your formal relationships, in relation primarily to the hearing we had last week. And I would just like to know, do you all have a formal relationship with one of our witnesses last week, Mr. Irby?

Mr. PACELLE. A formal relationship? No, we do not.

Mrs. BLACKBURN. Have you ever provided compensation to him to be in here in DC, or provided expenses or travel for him to come into DC to provide testimony or to lobby us on the bill?

Mr. PACELLE. No, not to my knowledge.

Mrs. BLACKBURN. Not to your knowledge. Could you confirm that and put it in writing and submit it to us?

Mr. PACELLE. Sure. I would be happy to call your office and tell you. Sure.

Mrs. BLACKBURN. OK. I would like it in writing. And same with Ms. Benefield, to know what her formal relationship is with you all.

Mr. PACELLE. Sure.

Mrs. BLACKBURN. That would be wonderful. I appreciate that. And, Mr. Pitts, I yield the balance of my time to you.

Mr. PITTS. Thank you.

Mr. TERRY. Joe, can I interrupt real quick?

Mr. PITTS. Yes, sir.

Mr. TERRY. We will also give you a couple minutes. And everyone else has said they are going to submit their questions for the record. So at the time Joe finishes his question, we will dismiss.

Mr. PITTS. Thank you, Mr. Chairman. For Mr. Hanrahan and Dr. Lyons, in my opening statement, I referred to a horse named Coronado Heights who happened to have been trained by the Nation's leading trainer by money, Todd Pletcher, and received 17 injections 1 week before he broke down. Mr. Hanrahan and Dr. Lyons, how is that putting the horse first? Please explain what could possibly be the benefit. Is this what is necessary to get a horse to the races, and how could this be justified especially at the top of the sport, Mr. Hanrahan?

Mr. HANRAHAN. Yes, sir. I am not a veterinarian, but I would suggest to you that veterinarians look at those horses. Depending on the medical condition of that horse, whether the horse had a cold, whether the horse had some lameness issue, et cetera, would determine how that horse was treated. I would also like to point out I believe that horse was 1 of the horses included in the aqueduct report for the Aqueduct Commission that was convened in light of a number of breakdowns. And with your permission, I would like to quote something out of that report. And this is from the executive summary of that report.

Mr. PITTS. Dr. Lyons—

Mr. HANRAHAN. And it says on page 4, pre-race medication administered to the fatally injured horses was similar to that administered to the uninjured horses that raced. And one other thing is that on——

Mr. PITTS. I only have 2 minutes left. You can submit that for the record? Dr. Lyons, would you comment? How is this putting the horse first? Explain the benefit, et cetera.

Ms. LYONS. Thank you, Congressman Pitts, for the question. It is not putting the horse first. It is putting the interest of getting that horse over to the races over and above the horse's safety, its well-being. And I looked at that horse's records. And I am a veterinarian. And I can tell you that there was nothing therapeutic about the approach or the drugs that were used in that horse. In my opinion, that horse broke down as a direct result of the injury-masking drugs that were stacked for weeks in advance before that horse raced and lost its life on the track. And I also am aware—and I am quite sure it was with this case that the owner of that horse had instructed that she did not want this horse to be medicated so that the injuries would be masked. And yet, the veterinarian did not abide by her directive. So this is how this system has broken down so that veterinarians see themselves as having the role of accommodating racing rather than the welfare of the patient. So that did not take care of that horse.

Mr. PITTS. Thank you. Mr. Hanrahan, the Blood Horse Magazine announced your being hired as the national HBPA CEO on 11/29/11. At the time, the article indicated that you were then a handicapper and occasional tournament player. Now, recent survey of horseracing bettors performed by Penn, Shad, and Berland indicated that 86 percent of the biggest bettors avoid certain tracks in States because of concerns over medication integrity, and 79 per-

cent of horseplayers factor in illegal drug use when handicapping races at certain track. And these poll numbers are insightful, because they basically say bettors at all levels, especially at most every vested—big bettors believe that trainers are cheating and using drugs and adjust their betting accordingly. When you were actively wagering, did you take into account any of these considerations? If not, why not?

Mr. HANRAHAN. No, I did not. The——

Mr. PITTS. Why——

Mr. HANRAHAN. The primary thing in handicapping a race is how competitive the race will be. You look at the size of the field, the conditions of the race. And I would point out, as I am sure many of you know, for horses running on Lasix, that is published in the racing programs. Everyone knows that.

Mr. PITTS. Well, do you think this presents a perception problem? What if Warren Buffet thought Wall Street was rigged, quit playing? Isn't this actually driving your sport out of business? Five years ago, nearly $15 billion was bet on races in North America. Today, it is down to 10 billion. Sales and purses have slumped as well. Additionally, fewer owners, especially foreign, are buying the racing horses in America. My time has expired. I have several questions for the record, Mr. Chairman, that I will submit. And I have two statements for the record, from Water Hay Oats Alliance and ASPCA, that I would like the unanimous consent to submit——

Mr. TERRY. Without objection, so ordered.

[The information follows:]

Water Hay Oats Alliance
Stop Race Day Medication

The Honorable Lee Terry
Subcommittee on Commerce, Manufacturing, and Trade
Committee on Energy and Commerce
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Terry and Ranking Member Schakowsky,

The Water Hay Oats Alliance (WHOA), representing more than 400 horse industry members, applauds the House Subcommittee on Commerce, Manufacturing & Trade, for holding a hearing on Thursday, November 21st to examine the epidemic of drugs in horse racing.

There are 38 racing jurisdictions in the US and 38 separate regulatory bodies. As a result and despite efforts to self-regulate as intended by the Interstate Horseracing Act, the industry is a morass of rules and regulations. With this backdrop, the administration of drugs to race horses, legal and illegal, is common practice and the public is well aware that drugs often play a bigger role in the outcome of races than do the natural abilities of the horses competing. This fact has driven fans away from racing to sports that provide its athletes with a level playing field.

WHOA recognizes that the practice of drugging horses undermines the integrity of the racing breeds, including thoroughbreds, standardbreds and quarter horses, and threatens the future of horse racing. The public is disgusted and horrified by the frequent breakdown of horses. An astounding 24 horses die every week on racetracks in the US and the vast majority of those were on performance-enhancing drugs.

The Horseracing Integrity and Safety Act proposes a concrete solution by assigning to the United States Anti-Doping Agency (USADA) the authority to work with the industry to establish uniform drug rules, to centralize the drug testing in USADA-designated drug testing laboratories and to establish uniform penalties for all drug violations in the US.

WHOA wholeheartedly supports Congressional action. It is long overdue and the very future of racing in America depends on it.

For more information, please visit: waterhayoatsalliance.com

STATEMENT FOR THE RECORD

U.S. House of Representatives Energy and Commerce Subcommittee on Commerce, Manufacturing and Trade
Hearing: "H.R. 2012, a bill to improve the integrity and safety of interstate horseracing, and for other purposes."

Submitted by: Nancy Perry, Senior Vice President, Government Relations, ASPCA
November 20, 2013

On behalf of the American Society for the Prevention of Cruelty to Animals (ASPCA) and our 2.5 million supporters nationwide, thank you for the opportunity to submit this written statement. Founded in 1866, the ASPCA was the first humane organization in the United States. Our mission, as stated by founder Henry Bergh, is "to provide effective means for the prevention of cruelty to animals throughout the United States." The ASPCA works to rescue animals from abuse, pass humane laws, and share resources with other animal protection groups nationwide.

The ASPCA has a long history of commitment to horse welfare. Our founder's intervention in the abuse of a horse inspired the birth of our organization and we have dedicated significant resources to that aspect of our mission. Last year, we granted $1.8 million in aid to equine rescues and sanctuaries across the United States. Through our Rescuing Racers Initiative, we have provided more than $1.1 million in the past three years to help retrain retired racehorses for second careers and secure good homes for their post-racing years. The ASPCA also conducts Equine Welfare Workshops: day-long professional seminars that help equine rescue and sanctuary operators improve their skill sets in four critical areas: fundraising, board development, best practices and assisting law enforcement with cruelty seizures. Additionally, we are a leader of the Homes for Horses Coalition, a national network of rescue groups dedicated to providing a safety net for horses in need.

The ASPCA submits this statement in support of H.R. 2012, the Horseracing Integrity and Safety Act. This legislation will prohibit the use of performance-enhancing drugs in horse racing, and improve the safety and integrity of the sport by designating the U.S. Anti-Doping Agency as the independent organization that will set and enforce national welfare standards for horse races that are the subject of interstate off-track wagers. Additionally, the bill will create a "one and done" lifetime ban for the most severe doping violations, and a "three strikes, you're out" penalty for chronic violators.

The Doping Problem
Drugging of racehorses is a significant, widespread problem. *The New York Times* published a shocking exposé into the widespread doping of racehorses, "Death and Disarray at America's Racetracks" (3/25/12), stating that "trainers experiment with anything that might give them an edge, including chemicals that bulk up pigs and cattle before slaughter, cobra venom, Viagra, blood doping agents, stimulants and cancer drugs." Another *New York Times* article, "Horse Racing Discovers New Drug Problem, One Linked to Frogs" (6/20/12), revealed that some trainers even experiment with liquids extracted from South American frogs to give their horses an unfair advantage while racing. Dermorphin, the substance collected from these frogs, acts as a

painkilling drug 40 times more powerful than morphine. A pain-masking drug of that strength would enable horses to run despite serious injuries, putting both the horse and the jockey at risk. Sore and injured horses injected with painkillers on race day may run at full speed down the track, oblivious to pain that might otherwise be a warning to both horse and jockey. Horses who are pushed to run beyond their capacity and fitness while under artificial influence inevitably injure themselves, often irreparably, adding to the burden that rescue organizations already face as they seek homes for these deserving horses. These earnest and loyal horses push their physical limits in a sport that swiftly discards them as useless when their injuries impact earning potential. If they don't die on the track, they are typically shuttled off to auctions to likely be sold to kill buyers who in turn sell them for slaughter for human consumption overseas. The lack of strong national standards against this abuse puts young horses' lives at risk, puts their riders in harm's way, and undermines the integrity of the sport of racing itself.

Doping leads to catastrophic human and animal injuries and deaths. Although the horse racing industry has long promised to restrict the use of performance-enhancing drugs, such voluntary measures have been largely ignored. Lax or nonexistent oversight allows, and encourages, the use of any means possible—even cruel, life-threatening means—to win races. The worst offenders can easily circumvent the current patchwork of state horse racing commission rules by relocating their operations.

Enforcement Patchwork

Last year's potential for a triple crown brought to light the pervasiveness of doping in top-tier horse racing. Doug O'Neill, trainer of the 2012 Derby and Preakness-winning horse I'll Have Another, was suspended by the California Horse Racing Board due to accumulated horse doping violations. In Fall 2011, Richard Dutrow Jr., the trainer of 2008 Kentucky Derby winner Big Brown, was banned from racing in New York for 10 years. Dutrow has been sanctioned dozens of times in different states for various rule violations, including numerous violations of drug rules. Nevertheless, Dutrow had a horse running in the 2012 Preakness, one of the most prestigious horse races in the country. These trainers are not just bad apples. A review of Racing Commission International's database of drugging violations demonstrates that nearly the entire barrel is rotten – only two of the top twenty trainers in the country have no drugging violations. In an intensely competitive sport with huge purses on the line, the incentives are so strong for gaining any advantage that the current system essentially punishes the good apples.

Self-regulation by state horse racing commissions has failed to protect horses and jockeys from these abusive and deceptive drugging schemes. The pervasive pattern of abuse underscores an absolute necessity for establishing national standards in horse racing and regulation of drug use. Until a federal ban on the use of performance-enhancing drugs in racehorses is the law of the land, the lives of thousands more horses and jockeys will be at risk and horrific crashes and deaths will continue, day in and day out, at tracks nationwide.

Inevitable Abuse

When winning is the ultimate goal, any system that enables the use of shortcuts for enhanced competitiveness without repercussions can anticipate that the participants will indulge in those shortcuts. We are grateful to the trainers, veterinarians and owners who do not use doping to win, but know that they are struggling upstream and foregoing opportunities for financial gain and

glory. This fundamental unfairness drives out the honest brokers and hampers the sport of horse racing, making a farce of its winners. For the sake of the sport itself, creating a level playing field will enhance the competition and produce a much healthier atmosphere for all involved. The industry cannot be expected to make this needed change. History has demonstrated that commissions and state-by-state rules cannot overcome the pressure for purses at any price.

It is time to bring an end to this rampant abuse. The ASPCA supports passage of the **Horseracing Integrity and Safety Act, H.R. 2012,** to prohibit the use of performance-enhancing drugs in racehorses. This federal ban is necessary to empower USADA to set welfare standards applicable nationwide. National standards will end the confusion of conflicting state rules. Additionally, the bill will create a "one and done" lifetime ban for the most severe doping violations, and a "three strikes, you're out" penalty for chronic violators. The worst offenders will no longer be able to evade punishment by navigating through a patchwork of state racing commission rules to avoid sanctions. We thank the Subcommittee for its attention to this important issue and for its consideration of this legislation. We look forward to working with the Subcommittee and the racing industry to bring this long overdue reform.

Mr. PITTS. Thank you, Mr. Chairman.

Mr. TERRY. Thank you. And now, I will recognize Mr. McNerney for a short statement.

Mr. MCNERNEY. I just want to thank the witnesses for coming. I have heartfelt statements. I support H.R. 2012, and I will submit questions for the record.

Mr. TERRY. So you have heard Mr. McNerney talk about questions for the record. Each member of this committee and Joe Pitts has the ability or right to send you questions. You have an obligation, because you agreed to testify, to answer those questions in a timely manner, which I will define as 2 weeks. If you can get in your answers to any questions submitted to you within 2 weeks, we would greatly appreciate it. And at this time, I want to offer unanimous consent to put into the record an article entitled "Texas Compounder Draws Industry Scrutiny," and a November 20, 2013, NTRA letter. Hearing no objections, so ordered.

[The information follows:]

[redacted]

Texas Compounder Draws Industry Scrutiny

by Frank Angst
Date Posted: 11/14/2013 6:27:30 PM
Last Updated: 11/15/2013 8:42:44 AM

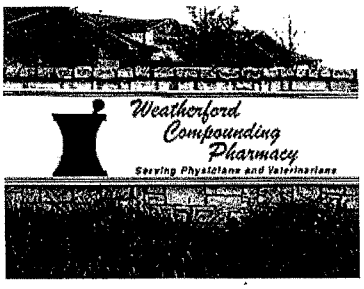


Photo: File Photo

Until a few days ago, the website for the Weatherford Compounding Pharmacy in Weatherford, Texas, had prominently displayed seals from the Texas State Board of Pharmacy and the Department of Health and Human Services.

A sentence on the professional-looking site, located next to the image of horses racing to the finish line, notes that Weatherford will "work with your veterinarian to supply quality medicinal compounds specifically formulated for your animals." That accurately describes one of the missions of compounding pharmacies.

When placed on hold, phone callers to the compounding pharmacy owned by Joe Landers, a former horse breeder in Weatherford, are greeted with an introduction to the company over a pleasant sounding country tune.

But racing regulators and industry leaders in Texas and beyond are reporting a less pleasant side of Weatherford. They know the compounder as the manufacturer of mysterious products with names that suggest performance-enhancing effects: Equine Growth Hormone, Game Changer, Exacta, and Race Ready, to name a few.

Prominent regulators and racing leaders believe Weatherford Compounding Pharmacy is the biggest problem compounder among several that are either manufacturing substances designed to provide illegal performance-enhancing and painkilling effects while skirting enforcement, or marketing their substances as such. Either way, it's a problem.

Days after *Bloodhorse.com* asked Weatherford owner Landers what the compounder had done to earn the seals from the Texas Pharmacy Board and the Department of Health and Human Services on its website, those seals disappeared from the bottom of the site's homepage.

Compounded Problems

In September regulators in New Mexico confiscated Weatherford products, as well as similar substances from other compounders, at a Ruidoso Downs Quarter Horse meet and sent them to the Racing Medication and Testing Consortium, which represents 24 industry stakeholders on medication and testing issues. RMTC Executive Director Dionne Benson said the RMTC is testing 19 such products taken at Ruidoso—more than half of which are from Weatherford—to determine the exact ingredients.

In a sport working through groups like The Jockey Club and Mid-Atlantic Uniform Medication Program to limit medications to a short list of specific therapeutic drugs while banning all other substances, the RMTC has tried to identify such compounded substances that could range from harmless amino acids and vitamins to serious painkillers and performance enhancers.

While some amino acids may be innocuous, Benson noted that with the right mix of amino acids, it is possible for a compounder to formulate dermorphin, the powerful painkiller known as "frog juice."

This year the RMTC has found two compounded substances to be outside of racing's rules. In July it issued a notice that Purple Pain and TB-500 would be treated as the highest level of medication violations and result in the most severe sanctions as recommended by the Association of Racing Commissioners International. Purple Pain is marketed as, "the most powerful pain shot on the market today," while TB-500 boasts muscle-building qualities.

As the owner of a company that markets the performance-enhancing powers of its substances but wants regulators to believe they are completely within the rules, Landers said Weatherford products will pass testing. That includes even a product named Tourniquet, which he claims curtails exercise-induced pulmonary hemorrhage.

"I hope they do test them because unless somebody tampered with them, they're going to find nothing," Landers said. "There's not been a horse yet that's had a bad test on Race Ready. There's not been a horse yet that's had a bad test on Tourniquet. If there was, this would have surfaced a long time ago."

After saying his products would hold up to testing, Landers then said they are needed by rule-abiding horsemen to compete with crooked trainers using illegal drugs he said are arriving in the U.S. from Mexico that are "far, far, far ahead of the racing commissions—far ahead of them."

There are legitimate uses for compounding pharmacies in U.S. racing—making therapeutic products no longer manufactured by drug manufacturers and creating products for horses with specific needs—but an explosion of compounded products in recent years that, at the least, market themselves as performance-enhancers or powerful painkillers and, at worst, provide such results while evading detection, have regulators and testing labs wary.

Growing Problem

Several compounders are receiving scrutiny. Regulators mentioned a compounding lab near Fonner Park as one of concern, as well as the Internet site HorsePreRace.com. California Horse Racing Board equine medical director Rick Arthur said earlier this year the CHRB sanctioned Rapid Equine Solutions in Pennsylvania. Arthur said the Weatherford products have not been seen in his state but he will not provide the benefit of the doubt to any trainer found possessing them.

"I would take it as a sign that whoever has that product bears close scrutiny," Arthur said.

Dr. Scott Stanley, a chemist and lab director at the University of California-Davis Kenneth L. Maddy laboratory, said on a weekly basis—if not daily—his lab receives for testing from regulators an inappropriate pharmaceutical prepared by a compounder.

Landers said the RMTC should focus its attention on veterinarians and their use of products, not the manufacturer of the substances.

"We have a license to sell medicine and that's what we do. They have a license to buy medicine, and they have a license to use it on the track. It's their decision how it's to be used; and the trainer," Landers said. "It has nothing to do with me; nothing."

Landers, who is not a pharmacist, argues his company is only filling a need.

"I guess I'm having a hard time understanding why these people want to go look at the compounders. Compounders ain't got Jack Doodle to do with it," Landers said. "The veterinarians are the ones that are purchasing it, bringing it on to the backside, and they're the ones that are using it. If they think it's a problem, don't take it back there...

"Anything we make, it's at the request of veterinarians and how they want to put them together, and what they want to do. The owners, the trainers, and the veterinarians are the ones that control what goes into their horse, not the pharmacy. We don't go in there and give them anything."

Regulators at Quarter Horse and Thoroughbred meets in the Southwest report Weatherford representatives may not be administering their substances but they actively market their products on the backstretch. Ken Quirk, state veterinarian for the Texas Racing Commission, said Weatherford and Landers have his attention.

"We certainly believe that he's a bad actor," Quirk said. "There is significant concern about his activity."

Quirk said compounders aiming to sell illegal products or operate in a gray legal area have become

problematic. He has seen products like Purple Pain marketed as having the same amino acids as dermorphin while evading tests.

"They market to people suggesting that their product cannot be tested for and that it enhances performance," Quirk said. "There's a lot of that going on."

Quirk has attempted to enforce racing commission rules regarding the substances but he also has gone to the Texas Department of Public Safety, the Texas State Board of Pharmacy, and the Texas State Board of Medical Examiners for help. Quirk and others have requested federal intervention. But to this point, little has been done.

Many of these regulators either do not have specific powers to regulate compounders or, in the case of horse racing's problems, rank far behind bigger issues. Last year dozens of people died during a fungal meningitis outbreak linked to a Massachusetts compounder.

"It seems like they have so many things on their plate that I'm not sure it's a priority for them," Quirk said. "I guess these guys figure they have bigger fish to fry than a veterinary compounder."

American Quarter Horse Association executive director of racing Trey Buck was at Ruidoso when the 19 compounded substances were confiscated. He has seen Weatherford salesmen getting their message out at Remington Park. He noted that at least one Weatherford product included instructions that would require breaking the rules of racing.

"When you put something on a label that says it should be administered four hours before a race, when the only thing you can give on race day is Lasix, right there they're promoting breaking rules," Buck said. "And if they don't know that, they should before they go selling these products."

For now, Quirk is continuing his efforts that include trying to shame veterinarians into not supporting these types of compounded, gray-area products.

"We don't need it," Quirk said. "It would be nice if there were a way to address it."

The Racing Medication and Testing Consortium is testing several substances from the Weatherford Compounding Pharmacy.

Game Changer

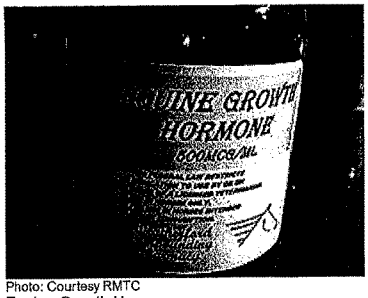


Photo: Courtesy RMTC
Equine Growth Hormone

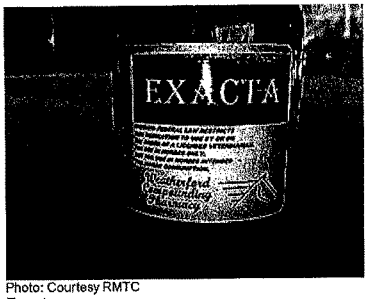


Photo: Courtesy RMTC
Exacta

Photo: Courtesy RMTC
Race Ready

Photo: Courtesy RMTC
Clenbuterol

Photo: Courtesy RMTC
Equine Monster

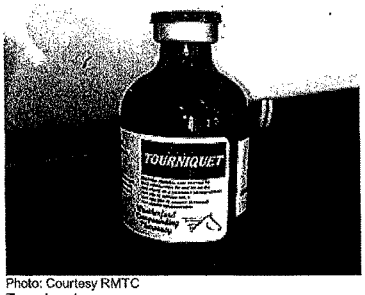


Photo: Courtesy RMTC
Tourniquet

Alexander M. Waldrop
President & CEO

November 20, 2013

The Honorable Lee Terry
Chairman,
Energy and Commerce Subcommittee on Commerce, Manufacturing, and Trade
United States House of Representatives
Washington, DC 20515

The Honorable Jan Schakowsky
Ranking Member
Energy and Commerce Subcommittee on Commerce, Manufacturing, and Trade
United States House of Representatives
Washington, DC 20515

Dear Chairman Terry and Ranking Member Schakowsky:

We understand that at 10:00 a.m. on Thursday, November 21, 2013, the Subcommittee on Commerce, Manufacturing, and Trade of the Energy and Commerce Committee (the "Subcommittee") will convene a hearing on the Horseracing Integrity and Safety Act of 2013 (H.R. 2012). H.R. 2012 is described as a bill to improve the integrity and safety of interstate horseracing.

Please allow me to update you on a national reform effort recently undertaken by the horse racing industry to enhance the safety and integrity of our sport. The reforms, which are comprehensive and far reaching, include: 1) uniform national model medication guidelines; 2) an enhanced penalty system designed to target individuals with multiple medication violations; 3) restrictions on the use and administration of furosemide; and 4) a laboratory accreditation and quality assurance program (the "Reforms").

These Reforms were developed by the Racing Medication and Testing Consortium ("RMTC") and the Association of Racing Commissioners International ("RCI"). RMTC is the industry's scientific advisory organization consisting of 25 major racing industry stakeholder organizations. RCI is the industry's association of state regulatory bodies responsible for the integrity of racing. RMTC recommended the Reforms to RCI and RCI voted to incorporate the Reforms into their official model rules earlier this year. Individual regulatory bodies across the United States are already in the process of adopting the Reforms.

In fact, eight states in the Mid-Atlantic and Northeast, two regions which comprise the largest concentration of horse racing in North America, have already jointly agreed to implement the Reforms on January 1, 2014, or when a participating state's live racing begins in 2014. The states that jointly committed to implementing the reforms are Delaware, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, Virginia, and West Virginia. Nearly a dozen other states are in the process of adopting these Reforms, and we are confident that by this time next year the overwhelming majority of horse racing in the United States will be conducted in accordance with the Reforms.

NATIONAL THOROUGHBRED RACING ASSOCIATION
2525 Harrodsburg Road, Lexington, Kentucky 40504
Phone: (859) 422-2602 *Fax:* (859) 296-5202 *E-mail:* awaldrop@ntra.com *Internet:* www.ntra.com

The Reforms consist of the following:

1. **Controlled Therapeutic Medication Schedule** ("Schedule"). The Reforms include a "Schedule of Controlled Therapeutic Medications" which lists a limited number of medications that have been recognized as necessary for the treatment of illness or injury in the horse on a routine basis. For each medication, the Schedule lists a uniform detection level at which the testing laboratory is to report a positive test. It also provides horsemen guidance for discontinuing treatment to minimize the risk of incurring a violation. The Schedule is based upon many years of expensive, painstaking research by the RMTC and is scientifically supported so that each level of detection is specifically linked to the concentration above which the drug could affect the horse's performance. These thresholds protect our equine and human athletes.

2. **Multiple Medication Violations Penalty System** ("MMV"). The MMV represents an industry-wide plan to provide enhanced penalties for those individuals who accumulate multiple medication violations, regardless of the jurisdiction in which they occur. Under the new system, each drug or medication violation is assessed points. A trainer's record will be tracked by a central database maintained by RCI and available to state stewards and racing commissions. A trainer's point record will include violations across all jurisdictions. At certain point total thresholds, the offending trainer will be required to serve a suspension in addition to any fine, suspension and/or disqualification levied for the underlying violation.

3. **Restrictions on the use and administration of Furosemide** (the "Furosemide Restrictions"). Furosemide is administered to racehorses on race day and has been scientifically proven to lessen the effects of a respiratory condition called exercise-induced pulmonary hemorrhage (EIPH). The Furosemide Restrictions require that Furosemide be the only medication authorized for administration on race day and that Furosemide be administered under controlled conditions with a uniform detection level. The Furosemide Restrictions also require that the administration of Furosemide be performed only by third-party veterinarians or veterinary technicians who are prohibited from working as private veterinarians or technicians on the racetrack or with participating licensees.

4. **Laboratory Accreditation and Minimum Standards.** The Reforms require that every participating state's drug testing laboratory must be accredited by the RMTC to standards set forth in the RMTC testing laboratory accreditation code of standards ("RMTC Standards"), which are the strictest laboratory standards for equine sport drug testing in the world. RMTC Standards include a requirement for lab accreditation to international laboratory standards known as ISO 17025 accreditation standards. Currently, three laboratories that conduct equine drug testing on behalf of six racing jurisdictions have received accreditation from the RMTC, and laboratories conducting testing for 19 other racing states have applied for RMTC accreditation.

The Schedule, MMV, Furosemide Restrictions and RMTC Standards are posted online at the following link: http://ntra.com/lg/UniformReforms.html.

While the Reforms are comprehensive and far-reaching, the process for developing the Reforms is ongoing. Additional substances may be considered for inclusion in the Schedule upon recommendation from the American Association of Equine Practitioners (AAEP) and/or the RMTC. Other aspects of the Reforms may likewise be modified in the future to reflect advancements in scientific research and development.

Currently, industry leaders are coordinating a nationwide effort to ensure passage of these Reforms in every jurisdiction in the United States that conducts pari-mutuel horse racing. Regulators are being urged to fully and uniformly adopt each of the Reforms without amendment or substantive modification by January 1, 2014, or as soon thereafter as practicable. In October, a letter cosigned by nearly 60 major racing organizations was delivered to regulators in 28 states outlining the Reforms in detail and pledging to provide any scientific or technical assistance required to implement the reforms in their respective jurisdictions. The list of cosigners is posted online at the following link: http://ntra.com/lg/IndustrySupporters.html.

We continue to work cooperatively with regulators and local industry groups in multiple jurisdictions to push this initiative forward. In fact, concurrent with this Subcommittee's hearing on H.R. 2012, representatives from the RMTC, Breeders' Cup and the Thoroughbred Owners of California are appearing before the California Horse Racing Board to advocate for adoption of the Reforms in California. And earlier this week, the Illinois Racing Board approved the initiation of rulemaking to adopt the Schedule by a vote of 8-1.

The industry is also committed to an open and transparent implementation process. Earlier this month, we issued a detailed press release outlining the industry's progress to date. That press release is posted online at the following link: http://ntra.com/lg/UniformRulesRelease.html.

We thank the Subcommittee for its interest in these very important and timely matters and look forward to updating the Subcommittee regarding the progress of the Reforms as developments warrant. In the meantime, you have our commitment that we will work diligently toward full implementation of the Reforms on a nationwide basis because the Reforms are in the best interests of the health and safety of both horse and rider, enhance the integrity of our sport, ensure a level playing field for our competitors, assist horsemen who race in multiple jurisdictions and accomplish the uniform regulation of racing in the United States.

Please feel free to contact me with any questions or comments.

Respectfully submitted,

Alexander M. Waldrop

President and Chief Executive Officer,
National Thoroughbred Racing Association

Chairman, Racing Medication and Testing Consortium

Mr. TERRY. I want to thank you all for your great testimony. Sorry we were rushed. We thought were going to have about another full half-hour to ask questions. But sometimes on getaway days, things tend to move quicker for some reason. So thank you very much for your insight and sharing your expert opinions with us today. And we are adjourned.

[Whereupon, at 11:13 a.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

Energy and Commerce Committee
Commerce, Manufacturing and Trade Subcommittee
Hearing on H.R. 2012, the Horseracing Integrity and Safety Act of 2013
Statement of Congresswoman Jan Schakowsky
November 21, 2013

I'd like to thank Chairman Terry for holding this hearing, which is the second in as many weeks related to the treatment of horses.

Today's hearing focuses on H.R. 2012, the Horseracing Integrity and Safety Act of 2013 and the widespread doping of racehorses within the United States. I'm pleased to join Mr. Pitts, the author of this bipartisan bill, as a lead cosponsor.

Several years ago, in June 2008, I chaired a hearing in this same Subcommittee on the state of the horseracing industry. It is unfortunate – but necessary – that we meet again to discuss this issue and develop solutions to it.

At our 2008 hearing, the witnesses testified about some concerns that had been raised about the industry: the lack of a central authority to oversee racing operations across the country; the welfare of horse and jockey in an increasingly injury-filled sport; and the worrying prevalence of drugs. Those problems have still not been resolved more than five years later.

There is continued evidence of the widespread use of medications and performance enhancing drugs in horseracing. Pain medicines like phenylbutazone – also called bute – are still used to mask lingering injuries, risking catastrophic career- and life-ending injuries in the process. Drugs such as Lasix are misused in order to increase some horses' performance in the short term – jeopardizing their long-term health and safety.

These are just the drugs currently allowed. Since 2009 there have been thousands of documented cases of trainers administering illegal substances such as cobra venom to their horses.

There are several dozen regulatory agencies that govern horseracing, with different rules regarding medication use, finite resources and a limited ability to enforce their rules. As a result, these practices continue, and the impacts are telling.

Between 2009 and 2011, an average of 24 horses died on the racetrack each week, often having to be euthanized after catastrophic failures. This is a sobering statistic, and if human athletes were regularly snapping legs or worse, it would be clear that there was a problem in need of a fix.

The status quo harms the long term viability of the horseracing industry as a whole and subjects horses and jockeys to unnecessary risk.

The Horseracing Integrity and Safety Act would address many of the problems plaguing the industry. With the passage of this bill, the playing field would be leveled across the nation: horses at facilities allowing interstate betting would be prohibited from receiving medications in the 24 hours prior to racing and would face stiff penalties for breaking the law.

H.R. 2012 would designate the U.S. Anti Doping Agency (USADA) as the industry's independent anti-doping organization, and require a national standard governing drug use in racehorses. No longer would corrupt individuals be able to avoid states with stronger regulations, racing their doped-up horses to exhaustion and death.

I urge my colleagues to work to assure the integrity of horseracing as a sport through the passage of this legislation – for the sake of the horses, the jockeys who ride them, and the citizens who watch and wager on races.

I yield back the balance of my time.

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON ENERGY AND COMMERCE

2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–6115
Majority (202) 225–2927
Minority (202) 225–3641

January 8, 2014

Mr. Jesse M. Overton
Chairman
SkyLearn Incorporated
P.O. Box 50185
Minneapolis, MN 55405

Dear Mr. Overton,

Thank you for appearing before the Subcommittee on Commerce, Manufacturing, and Trade on Thursday, November 21, 2013 to testify at the hearing entitled "H.R. 2012, a bill to improve the integrity and safety of interstate horseracing, and for other purposes."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions by the close of business on Wednesday, January 22, 2014. Your responses should be e-mailed to the Legislative Clerk in Word format at **Kirby.Howard@mail.house.gov** and mailed to Kirby Howard, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Lee Terry
Chairman
Subcommittee on Commerce,
Manufacturing, and Trade

cc: Jan Schakowsky, Ranking Member, Subcommittee on Commerce, Manufacturing, and Trade
Attachment

Subcommittee on Commerce, Manufacturing, and Trade

November 21, 2013

Written Response of Jesse Overton

Additional Questions for the Record

The Honorable Joe Pitts

1. Do state racing commissions share information about known violators?

   Racing commissions share violator information through the Racing Commissioners International (RCI) data base. However, this system is entirely dependent on the accurateness and completeness of the information provided by the state racing commissions. And some state commissions do not report at all.

2. In your experience, is enforcement consistent both within and among the states?

   There are no national penalty schedules nor is there consistency of enforcement within or among states. In fact, the severity of penalties imposed within a given state, are often mitigated by representatives of those who commit the infractions, specifically horsemen's groups.

3. The Minnesota Racing Commission participates in the Association of Racing Commissioners International (RCI). In 2011, then RCI Chair William Koester called for a phase-out of race day medication. A March 28, 2011 RCI press release (*available at:* http://www.arci.com/newsitem.asp?story=1047) quotes Mr. Koester as saying that:

   > *"Today over 99% of Thoroughbred racehorses and 70% of Standardbred racehorses have a needle stuck in them 4 hours before a race. That just does not pass the smell test with the public or anyone else except horse trainers who think it necessary to win a race. I'm sure the decision makers at the time meant well when these drugs were permitted, however this decision has forced our jurisdictions to juggle threshold levels as horseman become more desperate to win races and has given horse racing a black eye."*

   But despite calls from Mr. Koester and others--including the Jockey Club, the Thoroughbred Owners and Breeders Association, and the Breeders' Cup--no state racing commission prohibits the race day injection of horses.

   Why have state racing commissions failed to prohibit race day medication?

   Adding to Mr. Koester's statement above, Dr. Rick Arthur, state veterinarian in California, has reported in a study at Hollywood Park race track in CA, that between the time a horse is entered to race and the time the horse enters the starting gate (from 48 hours to 5 days

depending on the track), each horse has received a stunning 5 ½ injections of one type or another. Despite this out-of-control horseracing drug culture, state racing commissions often see their role as providing a climate which invites as many horsemen to participate in racing in their state as possible. This 'friendly' climate and a reputation of lax enforcement can take precedence over the welfare of the horses. Many racing commissioners are political appointees with little experience or background in horseracing. Therefore, they are not always comfortable challenging the horsemen's groups or veterinarians who insist race day medications are safe and necessary to keep horses in the starting gate.

4. Does the racing commission receive consumer complaints about enforcement practices or about the treatment of horses they see at the racetrack?

   In my experience, consumer complaints are rare, not because the public doesn't care, rather they have no idea what is happening 'on the backside'. The only information in the racing programs which is shared with bettors is whether horses are running on furosemide (Lasix or Salix). And the experienced bettor is more likely to bet on a horse running on Salix, which (s)he believes to be a PED, than a horse running without Salix. Recent surveys have shown the average bettor and racing enthusiast believes drugs play a big role in horseracing and they have shown their disgust by walking away from the sport. Spectator support for horseracing has been on the decline for many years.

5. Are the Racing and Medication Consortium rules enforceable state-to-state? In other words, if Minnesota medication requirements differ from those 'recommended' by RMTC, can RMTC sanction Minnesota or the trainer for violations of RMTC guidelines?

   The RMTC has no enforcement powers, whatsoever. They do not make the rules, but rather, recommend thresholds and withdrawal times for therapeutic substances which are then incorporated into what they refer to as Model Rules. And they do not make recommendations for penalties nor can they sanction violators of the rules. For example, there are still states which allow 'adjuncts', despite RMTC recommending that adjuncts be prohibited substances. Adjunct bleeder medications are substances other than furosemide (Salix) that are purported to have efficacy in preventing or mitigating Exercise Induced Pulmonary Hemorrhage and are administered in addition to furosemide on race day. There is no scientific evidence for these adjuncts and the RMTC does not support use of these substances, yet some states still allow injection of one or more substances, including California, Florida and Louisiana.

   It is worth noting that some progress is being made in the development of consistent drug rules through a National Uniform Medication Program. Enforcement of this program will depend wholly on the acceptance, implementation and enforcement of each state racing commission. This program will require:

1) Each jurisdiction implement a two-tier drug classification sytem: Controlled Therapeutic Medications and Prohibited Substances with regulatory thresholds and withdrawal guidelines provided for each of the 24 controlled therapeutic medications

2) Any administration of Furosemide on race day be administered solely by veterinarians designated by the local regulatory authority

3) All equine drug-testing facilities earn accreditation that meets the Racing Medication and Testing Consortium Code of Standards for drug testing laboratories

4) State racing commissions adopt the RCI Penalty Guidelines for Multiple Medication Violations

6. As the U.S Attorney's case in Pennsylvania unfolds relative to crimes committed by trainers and racetrack employees, and as a former state regulator, what reflections and lessons are to be learned at the state level of regulation? Do you think a more comprehensive national independent regulatory structure as proposed in HR 2012 is necessary to curb such incidents from occurring?

The situation in Pennsylvania highlights inherent and serious problems with the racing regulatory paradigm. State racing commissioners are often political appointees with little knowledge of horseracing regulations prior to stepping in as commissioners. These commissioners can be reluctant or afraid to enforce the regulations for a variety of reasons, such as a lack of understanding of the regulations, political pressure from elected officials or horsemen's groups or the concern for bad publicity for the racetracks.

Racing commissions are aware that suspensions imposed on a violator (horse trainer) in one state do not preclude the same trainer from moving to another state and similarly committing violations. This jurisdictional limitation is well known by horse trainers. If a racing commission in one state suspends a trainer, the trainer simply moves to a racetrack in another state or just as frequently, continues to train but runs his horses in another trainer's name. As a former racing commissioner, I believe the only way to insure a sound and safe horseracing program is to establish a national independent regulatory structure. Any solution short of that will result in the same outcome.

7. In his five minute oral statement at the hearing, Mr. Hanrahan states that based upon the results of drug testing, there is no misuse of medication in horseracing. Is this true?

In short, this is entirely false. The horrific reports about illegal drug use are reported almost daily in industry or popular press. Far too many horse trainers are looking for an edge and attempt to gain it through the use of illegal or inappropriately used drugs. In my experience as a racing commissioner, I became aware that those who sought to cheat were constantly in search of new, undetectable substances to give their horses, always looking for an edge.

From blood doping agents to unapproved pain medications, it is stunning the lengths unscrupulous trainers will go to win a race. Mr. Hanrahan fails to mention that only about 12% of the horses that race are tested; they can only be tested for substances the labs are calibrated to detect; and a stunning 99% of all thoroughbred horses are running on furosemide, a treatment for a condition found in only 5% of the thoroughbreds in the US.

Despite the fact there are 38 racing jurisdictions in the US, there are only four accredited laboratories testing blood samples. A USADA-type program would establish a national network of accredited labs, with the capabilities to detect both legal and illegal drugs, compounds and agents. In my view, this approach is the only way to mitigate the profound drug problem in horseracing.

8. Mr. Hanrahan states in his written testimony:

"Turning to H.R. 2012, the NHBPA opposes its enactment because the bill attempts to address a problem that in reality does not exist, and purports to do so by employing an organization, the United States Anti-Doping Agency ("USADA"), which has neither the experience nor the resources to carry out a legislatively assigned task of regulating medication in the horse racing industry."

Do you agree with the NHBPA that this bill attempts to address a problem that does not exist?

I can't believe the NHBPA can make this statement with a straight face. While NHBPA provides support to horsemen in some positive ways, its stonewalling approach to this very serious problem is jeopardizing the very sport they purport to protect.

9. Mr. Hanrahan further states in his written testimony:

"Any asserted problem is one of misperception caused by recurrent sensationalism in the public media. News reports claim there is rampant illegal use of drugs in horse racing that state regulatory bodies are ignoring. However, an analysis of regulatory data in thoroughbred racing states shows that such assertions are flat out wrong."

Do you agree with his statement?

I completely disagree with this statement. The patchwork of regulatory requirements, including withdrawal times, lab quality, funding dedicated to enforcement, and a host of other challenges and weaknesses in the system, allow illegal drug use in horseracing to flourish. The news reports highlighting incidents of illegal drug use just scratch the surface of the deeply entrenched drug culture in horseracing. In its heart, the horseracing industry knows it must clean itself up, but the strong need to protect the status quo, avoid the cleanup cost, the multiplicity of organizations protecting their turf, and the reluctance to potentially

alienate horsemen and veterinarians through a strong detection and enforcement program result in the blanket denials of association representatives, like Mr. Hanrahan.

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS

Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–6115
Majority (202) 225–2927
Minority (202) 225–3641

January 8, 2014

Mr. Phil Hanrahan
CEO
National Horsemen's Benevolent
& Protective Association
870 Corporate Drive, Suite 300
Lexington, KY 40503

Dear Mr. Hanrahan,

Thank you for appearing before the Subcommittee on Commerce, Manufacturing, and Trade on Thursday, November 21, 2013 to testify at the hearing entitled "H.R. 2012, a bill to improve the integrity and safety of interstate horseracing, and for other purposes."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions by the close of business on Wednesday, January 22, 2014. Your responses should be e-mailed to the Legislative Clerk in Word format at **Kirby.Howard@mail.house.gov** and mailed to Kirby Howard, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Lee Terry
Chairman
Subcommittee on Commerce,
Manufacturing, and Trade

cc: Jan Schakowsky, Ranking Member, Subcommittee on Commerce, Manufacturing, and Trade
Attachment

Responses of Mr. Philip Hanrahan, CEO, National Horsemen's Benevolent & Protective Association to additional questions posed by the Honorable Joe Pitts for the November 21, 2013 hearing record; "H.R. 2012, a bill to improve the integrity and safety of interstate horseracing, and for other purposes."

The Honorable Joe Pitts

1. **Race day Lasix (furosemide) is not a performance enhancer?**

   Mr. Hanrahan, your testimony cites some "scientific and medical facts, ignored by H.R. 2012, supporting continued use of Lasix". You claim that "Lasix is not performance enhancing." You also cite a study co-authored by Dr. Lawrence Soma on exercised-induced pulmonary hemorrhage (E.I.P.H.).

   His testimony clearly states that, "The majority of published reports indicate that [Lasix] does not prevent E.I.P.H. [or "bleeding"] in horses." And that the scientific literature on Lasix and performance enhancement "suggests that [Lasix] increases performance in horses without significantly changing the bleeding status."

   a. Can you explain the contradiction between your testimony citing Dr. Soma as a source and his testimony at the hearing that Lasix is a performance enhancer?

   b. If Lasix is not a performance enhancer, why does the Daily Racing Form and other handicapping sheets list "First Time Lasix" as a betting angle to look out for when betting races?

Answer:

On page 4 of my written statement to the Committee I cited a study co-authored by Dr. Soma, *Sudden death attributable to exercise-induced pulmonary hemorrhage in racehorses: Nine cases (1981-1983)*, for the proposition that EIPH can cause instant death in horses on the racetrack. There is no dispute between me and Dr. Soma on that issue. We both agree EIPH is a serious condition that can cause catastrophic death. A copy of Dr. Soma's paper was attached to my written statement.

There may be some disagreement between us on the efficacy of Lasix (furosemide) and its alleged enhancement of performance. In my statement I said Lasix prevents and lessens pulmonary bleeding and has been used lawfully and safely for the past 40 years. As support I attached to my Committee statement a copy of the seminal 2009 scientific study by a group of international scientists, Hinchcliff, et al., *Efficacy of furosemide for prevention of exercise-induced pulmonary hemorrhage in Thoroughbred race horses*, showing conclusively the effectiveness of Lasix. Based on a random selection of 167 horses in actual racing conditions the study found without Lasix horses were 3 to 4 times more likely to have pulmonary bleeding, and 7 to 11 times more likely to have moderate to severe bleeding, when compared to horses treated with Lasix.

The 2009 Lasix study was the focus of the "International Summit on Race Day Medication, EIPH, and the Racehorse" held at Belmont Park on June 13-14, 2011. The meeting was attended by representatives from all the major racing jurisdictions in the world. After review and discussion of the Lasix study not one of the distinguished science or veterinary panelists contended that Lasix is ineffective in treating EIPH.

Dr. Soma, on the other hand, does not identify any published scientific study for the assertion in his written Committee statement that "[t]*he majority of published reports indicate that furosemide* [Lasix] *does not prevent EIPH in horses.*" To be fair to Dr. Soma it is possible by "prevent" he means the complete absence of any trace of blood upon examination of a horse's trachea, and that he is not referring to a reduction in the severity of bleeding resulting from Lasix administration. In this context it is worth noting the view of the American Association of Equine Practitioners (also attached to my written statement): *"EIPH increases with age and exercise. One of the true values of furosemide is that the medication can be used to diminish or modulate the progressive pathologic change in the lungs that leads to repetitive bleeding."*

Turning to the question of "performance enhancing" I believe the term means administration of a drug or substance that stimulates or allows a horse to run faster and farther than its natural talent would permit. Blood doping drugs, which artificially increase the natural oxygen carrying capacity of blood, are examples of performance enhancing medication. Lasix, in contrast, prevents and reduces pulmonary bleeding, thus enabling a horse to perform to its natural capability, but not beyond. In short, Lasix is performance enabling, not performance enhancing.

To support my conclusion I am attaching a 2005 scientific study, Hinchcliff et al., *Association between exercise-induced pulmonary hemorrhage and performance in Thoroughbred racehorses*, demonstrating that EIPH impairs the performance of race horses. The study noted more than 50% of the horses examined evidenced EIPH and found that horses suffering little or no bleeding were four times as likely to win as those with moderate to severe EIPH. The subsequent 2009 Hinchcliff, et. al. study proving the efficacy of Lasix on this subject noted the following (p. 81):

> *We have previously shown that EIPH adversely affects the performance of racehorses and that treatment with furosemide improves race performance, and results of the present study would seem to suggest that the improved performance associated with furosemide could potentially be attributed to prevention or mitigation of EIPH.*

Again without citation to published authority, and contrary to the scientific studies above, Dr. Soma asserts in his written Committee statement (p. 7) that Lasix *"increases performance in horses without significantly changing the bleeding status."* Dr. Soma

concedes that Lasix does not have a specific stimulatory effect on a horse but suggests increased performance (i.e. running faster times) may be due to weight loss of body fluids from the diuretic effect of Lasix. Even if true it is hard to posit any "performance enhancing" competitive advantage because more than 90% of horses race with Lasix, and are all subject to the same diuretic weight loss effect.

Finally, I do not know the reason the Daily Racing Form and tout sheets list "First Time Lasix" as a betting angle. As an avid long time horse player I can tell you why I consider first time Lasix as a handicapping factor. If a horse has been running without Lasix there is a high probability that it experienced some degree of EIPH, which likely impaired its ability to compete. Lasix treats that impairment making it reasonable to assume there may be some improvement in the horse's performance when it races with Lasix for the first time.

2. **"Milkshaking" or total carbon dioxide (TCO2) violations**

The *United States v. Martin* case (411 F. Supp. 2d 370, (S.D.N.Y. 2006)) involved a trainer accused of "milkshaking" a horse, or artificially elevating the levels of carbon dioxide to increase its endurance. The federal judge described this practice as doping. The RCI model rules, however, do not consider "milkshaking" or total carbon dioxide (TCO2) violations to be "Class 1" or "Class 2" violations.

a. Does NHBPA consider "milkshaking" or artificially elevating a racehorse's carbon dioxide levels to be doping?
b. Why does the data you present in your testimony on racing medication violations from 2009-2012 exclude TCO2 violations during that period? The RMTC medication rulings website [http://www.rmtcnet.com/content_recentrulings.asp?sort=violation nd http://www.rmtcnet.com/content_rulings_drugs1.asp?sort=violation , viewed 11/20/13] lists numerous TCO2 violations during those years.

Answer:

The NHBPA considers "doping" to include "milkshaking" a horse by forcing a baking soda slurry into its stomach through a nasal tube, or otherwise artificially elevating a racehorse's natural carbon dioxide (TCO2) level, in a deliberate attempt to impermissibly affect the outcome of a race in violation of the "rules of racing".

The RCI Model Rules do not classify sodium bicarbonate (baking soda) in any of its five classes of medications, probably because common baking soda is not regarded as medication. Nonetheless, Model Rule ARCI-011-020 (J) (Medications and Prohibited Substances) specifically prohibits the use of alkalinizing agents, like baking soda, to elevate a horse's TCO2 level. The Model Rule sets a regulatory threshold of 37 millimoles per liter of plasma/serum and places violations of the threshold into the Category "B" penalty class. As such a first offense carries a maximum 60 day suspension, a maximum $1000 fine, and disqualification of the horse and loss of purse money.

In preparing the medication violation data contained in my Committee statement I did not intentionally exclude TCO2 violations. I used the data supplied me by RCI for violations falling within its five part drug classification system, which included test results for dozens of drugs but not a common substance like baking soda. That said, I am aware of recent TCO2 data compiled by the California Horse Racing Board. It showed during the four year period from 2009 through 2012 of approximately 115,000 TCO2 tests by the University of California's Maddy Laboratory only 4 were positive for concentrations above the regulatory threshold of 37 millimoles. I also took a quick look at the RMTC website referred to in the above question. From 2011 through 2013 there apparently was only one thoroughbred TCO2 violation. There were, however, a significant number of violations for standardbreds competing in the harness racing industry.

3. Lifetime ban for serious doping violations

Has any thoroughbred trainer faced a lifetime ban for doping violations? Please name any such trainers.

Answer:

I do not know whether the laws and regulations in the thirty-five or so states that have horse racing include in their penalty system a potential lifetime ban for doping violations. Accordingly, I do not know if any trainer "faced" the possibility of a lifetime ban. Nor do I know of any trainer who actually received a lifetime ban for doping violations.

4. Will HBPA support a necropsy requirement in all racing states for horses that die in racing and training?

Answer:

Yes, provided the cost is borne by state regulatory authorities.

5. Lifetime ban for "frog juice" use

Mr. Hanrahan, HBPA witness Kent Stirling told a Senate committee last year that any trainer caught using dermorphin--the "frog juice" painkiller 40 times more powerful than morphine—should be permanently banned from racing. Yet according to the Racing Medication and testing Consortium listing of medication violations, none of the trainers cited for dermorphin face lifetime bans.

a. Will HBPA commit to publicly advocating for lifetime bans for those who would abuse racehorses with such egregious doping agents?

b. Would HBPA support a USADA process that permanently kicked cheaters out of horseracing that benefits from federal gambling privileges?

See: RMTC "Recent rulings" website excerpts,
http://www.rmtcnet.com/content_recentrulings.asp?sort=violation and
http://www.rmtcnet.com/content_rulings_drugs1.asp?sort=violation viewed 11/20/13:

John H. Bassett	9/23/12	NM	ZIA	5-year	$5,000, loss of purse	Head Trauma	QH	dermorphin
Gonzalo Gonzales	6/20/12	LA	DED	six months (referred to LSRC for further action)		Be Home By Six	QH	dermorphin
Alonzo Loya	6/20/12	LA	DED	six months (case referred to LSRC for further action)		Counties Bull	QH	dermorphin
Carlos Sedillo	9/30/12	NM	RUI	5 years	$5,000, loss of purse	Stop The World	QH	dermorphin (1st violation within 12 mo.)
Carlos Sedillo	9/30/12	NM	RUI	5 years	$5,000, loss of purse	Greater Stir	QH	dermorphin (1st violation within 12 mo.)
Jeffrey H. Reed	9/29/12	NM	RUI	5 years	$5,000, loss of purse	DM Red Tide	QH	dermorphin (1st violation within 12 mo.)
Jeffrey H. Reed	9/29/12	NM	RUI	5 years	$5,000, loss of purse	One Classy Eagle	QH	dermorphin (2nd violation within 12 mo.)
John H. Bassett	9/22/12	NM	ZIA	5-year	$5,000, loss of purse	Dont Tell Lita	QH	dermorphin (2nd violation within 12 mo.)
Jeffrey H. Reed	9/29/12	NM	RUI	5 years	$5,000, loss of purse	Talkin Im Scootan	QH	dermorphin (3rd violation within 12 mo.)
Jeffrey H. Reed	9/29/12	NM	RUI	5 years	$5,000, loss of purse	Joker on Jack	QH	dermorphin (4th violation within 12 mo.)
Jeffrey H. Reed	9/29/12	NM	RUI	5 months	$1,500, loss of purse	DM Red Tide	QH	dermorphin (5th violation within 12 mo.)
Alvin Smith	6/16/12	LA	DED	six months		Dashin Forward	QH	dermorphin (case referred to LSRC for further action)
5/19/13	LA	Kyi Lormand			5/24/2013 5/23/2016	$2,500.00		Dermorphin
5/19/13	LA	Anthony Aguilar			5/24/2013 5/23/2016	$2,500.00		Dermorphin

Answer:

The NHBPA would support a lifetime ban, after the completion of "due process" that includes a hearing, for those state licensed trainers who abuse horses with egregious doping agents.

The NHBPA does not support a role for USADA in the process of promulgating and enforcing medication rules for the reasons I gave in my written statement and oral testimony. The NHBPA does believe state regulators should exclude cheaters from the industry after affording them a fair investigation and "due process" that finds facts justifying such a result in the specific case (i.e. the knowing and deliberate use of egregious doping agents).

6. Medication Violations Data

Mr. Hanrahan, your testimony states that horse "doping" should be defined narrowly to include what RCI considers "Class 1" and "Class 2" drugs. You state that other drug test positives involving Class 3 drugs, for example, "generally indicate overdoses of therapeutic medication permitted before race day." Yet RCI's classifies anabolic steroids and clenbuterol as "Class 3" drugs despite their potential to affect performance.

a. Could any violations involving "Class 3, 4, and 5" drugs possibly be considered "doping," or attempts to cheat?

b. For example, were any of the positive tests for clenbuterol or other drugs at such high levels as to indicate improper race day administration?

Answer:

Therapeutic medications in Classes 3, 4, and 5 generally have withdrawal guidelines and associated regulatory thresholds to ensure that on race day horses do not run under the active influence of those medications.

For example, under RCI Model Rules clenbuterol is a Class 3 medication with a recommended withdrawal time of fourteen days before racing and a post race test threshold of 140 picograms per milliliter of urine. Administering clenbuterol three days before racing, or even on race day, will almost certainly result in a positive test. Depending on the facts and circumstances that could be considered a deliberate attempt to cheat.

7. Do you consider EPO – epogen – an illegal drug? If yes, then why is there an advertisement for EPO Equine in your Horseman's Journal? Doesn't that tacitly or explicitly condone illegal drugging? See: http://issuu.com/thehorsemensjournal/docs/spring2013 page 15

Answer:

EPO and epogen are other names for erythropoietin, a blood doping agent whose possession and use in horses is specifically prohibited by RCI's Model Rules. The NHBPA considers erythropoietin, however named, to be an illegal drug. The NHBPA does not tacitly or explicitly condone its use or use of any illegal drug.

EPO Equine, advertised in the Horsemen's Journal, is the registered trade name for a feed supplement. It is marketed as a natural red blood builder. EPO Equine does not contain EPO, epogen, erythropoietin, or any other prohibited substance. According to its product label EPO Equine does contain Vitamin B-3, Vitamin B-6, Vitamin B-12, Vitamin C, Folic Acid, Iron, and an Echinacea extract. Echinacea is an herb that over the years has been sold as treatment for common colds, sore throats, acid indigestion, constipation, and snake bites, among other things.

I suspect the manufacturer, Biomedical Research Laboratories, believes "EPO Equine" is a catchy marketing name compared to, for example, the name "Vitamins and Iron" that actually describes product content.

8. Compounding pharmacies and so-called supplements: Is it the position of the NHBPA that products, which may be marketed as supplements and that claim to have performance enhancing benefits, may be used as long as there are no identifiable illicit substances

contained in them? Does the NHBPA encourage the use of such substances that make performance enhancing claims?

Answer:

There are dozens of equine supplements on the market that make claims ranging from promoting healthy hooves and feet to increasing strength and endurance, and just about everything in between. The NHBPA does not encourage the use of any specific products even though advertisements for them may appear in the Horsemen's Journal. Choice and use of supplements are best left to individual owners, trainers, and veterinarians. The NHBPA from time to time does caution its affiliates against use of certain supplements when it learns they contain questionable ingredients that may lead to medication violations.

9. Does the National HBPA and all its state affiliates support the Mid-Atlantic Reformed Rules for Racing endorsed by the NTRA and other racing groups? If so, which states has HBPA encouraged to adopt these medication changes?

Answer:

If you are referring to the Mid-Atlantic Uniform Medication Rules all of the NHBPA's affiliates in the Mid-Atlantic region--the Pennsylvania HBPA, Charles Town HBPA, Mountaineer HBPA, and the Virginia HBPA—worked with their respective state racing commissions to adopt and implement the Uniform Medication Rules, which will go into effect this year.

The Mid-Atlantic rules are nearly identical to RCI's recently adopted uniform medication rules. In meetings with RCI during the rule making process the NHBPA supported all the concepts embodied in the uniform rules, including: (1) a limited list of approved therapeutic medications, though NHBPA believes the list should be expanded; (2) a multiple medication violation penalty system; (3) administration of Lasix by regulatory veterinarians; and, (4) laboratory accreditation standards.

Attachment: Hinchcliff, et.al., *Association between exercise-induced pulmonary hemorrhage and performance in Thoroughbred racehorses* (2005)

Association between exercise-induced pulmonary hemorrhage and performance in Thoroughbred racehorses

Kenneth W. Hinchcliff, BVSc, PhD, DACVIM; Melissa A. Jackson, BSc; Paul S. Morley, DVM, PhD, DACVIM; James A. Brown, BVSc; Anthony F. Dredge, BVSc; Paul A. O'Callaghan, BVSc; John P. McCaffrey, BVSc; Ronald F. Slocombe, BVSc, PhD, DACVP; Andrew F. Clarke, BVSc, PhD

EQUINE

Objective—To determine whether exercise-induced pulmonary hemorrhage (EIPH) was associated with racing performance in Thoroughbred horses not medicated with furosemide and not using nasal dilator strips.

Design—Observational cross-sectional study.

Animals—744 two- to 10-year-old Thoroughbred horses racing in Melbourne, Australia.

Procedure—Horses were enrolled prior to racing, and a tracheobronchoscopic examination was performed after 1 race. Examinations were recorded on videotape, and presence and severity (grade 0 to 4) of EIPH were subsequently determined by 3 observers blinded to the horses' identity. Race records were abstracted for each horse examined.

Results—Overall, 52.1% of horses eligible for participation in the study were examined, and horses that were examined did not differ from horses that were not examined in regard to age, sex distribution, or proportion of horses that won or finished in the first 3 positions. Horses with EIPH grades ≤ 1 were 4.0 times as likely to win, 1.8 times as likely to finish in the first 3 positions, and 3.03 times as likely to be in the 90th percentile or higher for race earnings as were horses with grades ≥ 2. Horses with EIPH grades ≥ 1 finished significantly farther behind the winner than did horses without EIPH. However, odds that horses with grade 1 EIPH would win or finish in the first 3 positions were not significantly different from odds for horses without EIPH.

Conclusions and Clinical Relevance—Results suggest that EIPH is associated with impaired performance in Thoroughbred racehorses not medicated with furosemide and not using nasal dilator strips. (*J Am Vet Med Assoc* 2005;227:768–774)

Exercise-induced pulmonary hemorrhage (EIPH) occurs commonly in Thoroughbred and Standardbred racehorses throughout the world. Although estimates of the incidence of EIPH vary depending on the population of horses examined, the diagnostic method, and the frequency of examination, blood can be detected by means of tracheobronchoscopic examination of the airways in > 50% of Thoroughbred horses after a race.[1-3] The high incidence of EIPH has prompted speculation that EIPH is an important cause of impaired performance in Thoroughbred racehorses. Although this belief is strongly held by many horsemen and veterinarians involved in the care of racehorses, others have suggested that EIPH may be associated with superior performance, being reflective of greater racing effort,[4] and there currently is little scientific evidence to support either eventuality.

Previous studies[1,5] of Thoroughbred horses in which tracheobronchoscopic examination was performed after racing to detect EIPH have not found an association with performance. Studies[4,6] of Standardbred racehorses have reported either no association between EIPH and performance, an association between EIPH and poor performance, or a tendency for EIPH to be associated with superior performance. However, the ability of previous studies to detect an association between EIPH and performance may have been impaired by inadequate statistical power, nonrandom selection of subjects, and administration of furosemide. Because races are won or lost by small margins, relative to the overall length of the race, examination of low numbers of horses would result in low statistical power and could prevent detection of an important effect of EIPH on performance. Furthermore, a large number of factors can affect the athletic performance of horses, and analysis of epidemiologic information on race performance requires appropriate sampling and use of sophisticated statistical analyses to account for colinearity among independent variables. Finally, although furosemide administration has been found to be associated with superior performance in racehorses,[3,7] its effect on the occurrence of EIPH has not been objectively demonstrated in racehorses.

On the basis of currently available evidence, it is unclear whether EIPH is associated with altered performance in racehorses. The purpose of the study reported here, therefore, was to determine whether there was an association between presence or severity of EIPH and race performance in Thoroughbred racehorses that were not medicated with furosemide and not using nasal dilator strips.

Materials and Methods

Experimental protocol—The study was designed as a cross-sectional study of a convenience sample of horses racing at racetracks in Melbourne, Australia, between March

From the Department of Veterinary Clinical Sciences, College of Veterinary Medicine, The Ohio State University, Columbus, OH 43210 (Hinchcliff); the School of Veterinary Science, University of Melbourne, Werribee, Victoria 3030, Australia (Jackson, Brown, Dredge, Slocombe, Clarke); the Animal Population Health Institute, College of Veterinary Medicine, Colorado State University, Fort Collins, CO 80523 (Morley); and Veterinary Services, Racing Victoria Ltd, 400 Epsom Rd, Flemington, Victoria 3031, Australia (O'Callaghan, McCaffrey).

Funding provided by Racing Victoria Limited and Rural Industries Research and Development Corporation, Australia.

Address correspondence to Dr. Hinchcliff.

and June 2003 whose owners and trainers agreed to participate. Thoroughbred racehorses were enrolled 24 to 48 hours prior to racing and were evaluated endoscopically after racing for evidence of EIPH. Data characterizing race performance of the horses were then analyzed to investigate potential associations with the occurrence of EIPH. Information regarding the horses' previous race performance was included in analyses to adjust for potential confounding.

Horses—Horses enrolled in the study were Thoroughbred racehorses of either sex competing in flat races at 1 of 4 racecourses in metropolitan Melbourne, Australia, between March 1 and June 18, 2003. All races were on turf and took place between 11:30 AM and 11:30 PM. Administration of medications, including furosemide, was not permitted on the day of the race, and this rule was stringently enforced by application of state-of-the-art drug testing procedures for detection of therapeutic and prohibited substances in blood and urine samples. It is therefore unlikely that horses in this study were administered agents that could have affected performance or development or severity of EIPH.

To control for any potential enrollment bias, horses included in the study were identified before racing. Prior to enrollment of any horses in the study, information regarding the study was distributed to trainers and owners of Thoroughbred racehorses by means of facsimile transmission to all registered trainers in the state, publication of articles in trade newsletters and newspapers, broadcast interviews on radio and television, live presentations at the racetracks, and personal contacts with influential trainers. Horses to be studied on a particular race day were identified 24 to 48 hours before the race. Lists of horses accepted to race were obtained from the body governing racing in this jurisdiction (Racing Victoria Ltd), and trainers of eligible horses were contacted by telephone to request permission to examine horses. The risks and benefits of the study were explained, and verbal permission to examine horses was obtained. On the day of the race, the study was again discussed with the trainers, horses were visually identified by one of the investigators, and written informed consent was obtained before the horse raced. After the race, horses were brought by their handlers to a central location at the racetrack and examined endoscopically within 2 hours after racing.

Detection and quantification of EIPH—All horses underwent tracheobronchoscopic examination for evidence of EIPH. Briefly, an endoscope[4] was passed through 1 of the nares, and the nasopharynx, larynx, and trachea to the level of the carina were examined. Horses were not sedated for this procedure, and all examinations were recorded on videotape for subsequent analysis. Three individuals blinded to the identity of the horses and their race performance independently reviewed the videotapes and recorded their categorical assessments without discussing their observations with each other.

Severity of EIPH was graded on a scale[5] from 0 to 4, with grade 0 indicating that no blood was detected in the pharynx, larynx, trachea, or mainstem bronchi visible from the tracheal bifurcation; grade 1 indicating the presence of 1 or more flecks of blood or ≤ 2 short (< a quarter of the length of the trachea), narrow (< 10% of the tracheal surface area) streams of blood in the trachea or mainstem bronchi visible from the tracheal bifurcation; grade 2 indicating the presence of a long (> half the length of the trachea) stream of blood or > 2 short streams occupying less than a third of the tracheal circumference; grade 3 indicating multiple distinct streams of blood covering more than a third of the tracheal circumference but without evidence of blood pooling at the thoracic inlet; and grade 4 indicating multiple coalescing streams of blood covering > 90% of the tracheal surface with pooling of blood at the thoracic inlet.

Race records—Race records for horses included in the study were retrieved from a commercial database.[5] Variables recorded on the day of the study, abstracted from the database, or obtained from the Bureau of Meteorology[6] included horse name, age, sex, trainer, and jockey; race date; time of the race; racetrack, distance, and purse; weight carried; whether the horse finished the race; finishing position; finishing time of the winner; margin or distance finished behind the winner; speed rating for the race; number of horses in the race; days since last race; earnings for this race; lifetime earnings prior to this race; lifetime starts prior to this race; lifetime wins prior to this race; lifetime second-place finishes prior to this race; lifetime third-place finishes prior to this race; and presence of tracheal mucus. Investigators also recorded the time of each examination. Information obtained about the weather during the 24 hours preceding the race and at the time of the race included ambient temperature, humidity, rainfall, wind speed, and wind direction.

Data analysis—To determine whether EIPH was associated with race performance, distance finished behind the winner, race earnings, and finishing position were used as indicators of performance. Examination of summary and descriptive statistics and of graphs of the data was used to determine whether continuous data were normally distributed, and continuous data that were not normally distributed were transformed to yield a normal distribution or were categorized. The modal value of the EIPH severity grades assigned by the 3 observers was used in all analyses. Presence of EIPH was defined as a dichotomous (no vs yes) variable in 2 ways: severity grade of 0 (no) versus severity grade ≥ 1 (yes) and severity grade ≤ 1 (no) versus severity grade ≥ 2 (yes).

To control potential confounding, all variables that may have affected or predicted a horse's performance were included as covariates in the analyses. However, a previous study[7] has shown that there is considerable colinearity among these variables. Therefore, principal component analysis was used to create orthogonal (uncorrelated) scores for these independent covariates. Variables related to the race under investigation included in the principal component analysis were as follows: time between start of the race and endoscopic examination, weight carried, number of horses in the race, race distance, race purse, penetrometer reading, and horse age in years. Lifetime statistics included in the principal component analysis were as follows: lifetime starts prior to this race; lifetime number of wins, second-place finishes, and third-place finishes prior to this race; lifetime earnings prior to this race; and days since last race and next-to-last race. Uncorrelated scores were used as covariates in the statistical model to account for the variability explained by the original variables. Different principal component scores were calculated for analysis of the relationship between EIPH and race performance and for the interaction between EIPH and race distance on performance.

With distance finished behind the winner and race earnings as dependent variables, potential associations with the occurrence of EIPH (EIPH severity grade; severity grade = 0 vs severity grade ≥ 1; and severity grade ≤ 1 vs severity grade ≥ 2) were examined by means of multivariable ANOVA.[8] Because race earnings were highly skewed, they were logarithmically transformed, with values of 0 assigned a nominal value of $1. Multivariate logistic regression was used to determine whether occurrence of EIPH was associated with various categorical assessments of finishing position and race earnings (ie, winning [yes vs no], finishing in the first 3 positions [yes vs no], earning any money in the race [yes vs no], and being in the 90th percentile or higher for earnings in the race [yes vs no]). The Bonferroni method for multiple comparisons was used to adjust comparisons of least square means derived from ANOVA models. Odds ratios (ORs) and

95% confidence intervals (CIs) derived from likelihood ratio statistics were calculated from the logistic regression models. Data are given as mean ± SE. For all analyses, values of $P < 0.05$ were considered significant.

Results

Tracheobronchoscopic examinations were performed on 744 horses competing in 202 races at 26 race meets. Horses were from the stables of 214 trainers, with no trainer contributing more than 41 horses (median, 2 horses; range, 1 to 41 horses) or 5.5% of the total number of horses examined. During the period of the study, there were 2,396 race starts by 1,428 horses in flat races at the race meets during which horses were examined. Mean ± SD number of horses in each race was 11.9 ± 2.5 horses. Overall, 52.1% of horses eligible for participation in the study were examined.

Horses examined ranged in age from 2 to 10 years (median, 4 years). The age distribution of horses that were examined was not significantly different from the age distribution of horses eligible for participation in the study that were not examined (Figure 1). Horses that were examined consisted of 306 females, 375 geldings, and 63 sexually intact males. Sex distribution for horses that were examined was not significantly different from sex distribution for horses eligible for participation in the study that were not examined (Figure 2). Of the 744 horses that were examined, 54 (7.3%) finished in first place and 170 (22.9%) finished in the first 3 positions. Proportions of horses that were examined that won ($P = 0.3$) or finished in the first 3 positions ($P = 0.7$) were not significantly different from proportions of horses eligible for participation in the study that were not examined.

For the 744 horses that were examined, race distance ranged from 1,000 to 3,200 m. Mean ± SD time from the end of the race to the endoscopic examination was 31 ± 12 minutes, and blood was detected in the airways of 412 (55.3%) horses (Figure 3). Most of the horses with EIPH had only small amounts of blood in the airways (grade 1; 273/744 [36.7%]), and only 13 (1.7%) horses had grade 4 EIPH. Six horses had blood visible at 1 or both nostrils at the time of endoscopic examination. Five of these horses had grade 4 EIPH, and 1 had grade 2 EIPH.

Horses with EIPH severity grade ≤ 1 were 4.0 times as likely to win (95% CI, 1.5 to 14.3; $P = 0.006$) and 1.8 times as likely to finish in the first 3 positions (95% CI, 1.05 to 3.07; $P = 0.03$) as were horses with EIPH severity grade ≥ 2 (Figure 4). Horses with no evidence of EIPH (severity grade 0) were not significantly more likely to win (OR, 1.30; 95% CI, 0.68 to 2.47; $P = 0.43$) or to finish in the first 3 positions than were horses with EIPH severity grade ≥ 1. Horses with grade 1 EIPH were no more likely to win than were horses with no evidence of EIPH (Figure 5).

Horses with EIPH severity grade ≥ 1 finished significantly ($P = 0.002$) farther behind the winner (mean ± SE, 4.36 ± 1.16 m) than did horses with no evidence of EIPH (2.60 ± 1.07 m). For horses with EIPH, distance finished behind the winner was associated with grade of EIPH, with horses with higher grades finishing significantly ($P = 0.025$) farther behind the winner (Figure 6). Post hoc testing indicated a significant dif-

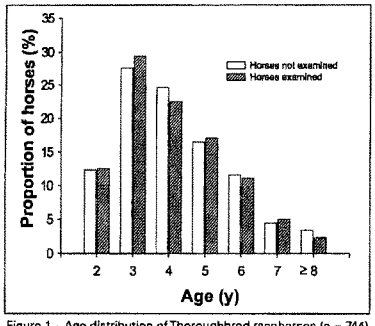


Figure 1—Age distribution of Thoroughbred racehorses (n = 744) in Melbourne, Australia, examined between March 1 and June 18, 2003, for exercise-induced pulmonary hemorrhage (EIPH) after racing and of horses in the same population that were not examined (684).

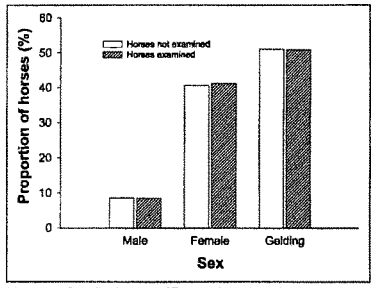


Figure 2—Sex distribution of Thoroughbred racehorses (n = 744) in Melbourne, Australia, examined between March 1 and June 18, 2003, for EIPH after racing and of horses in the same population that were not examined (684).

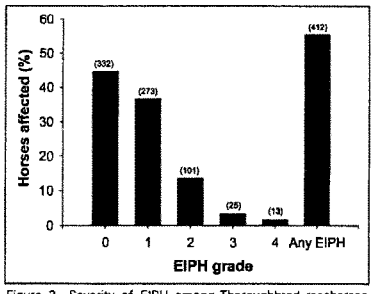


Figure 3—Severity of EIPH among Thoroughbred racehorses (n = 744) in Melbourne, Australia, examined between March 1 and June 18, 2003, after racing. Severity of EIPH was graded on a scale from 0 to 4 following tracheobronchoscopic examination.

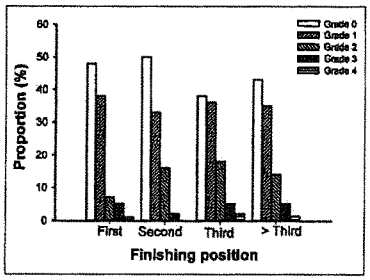


Figure 4—Finishing position as a function of severity of EIPH among Thoroughbred racehorses (n = 744) in Melbourne, Australia, examined between March 1 and June 18, 2003, for EIPH after racing.

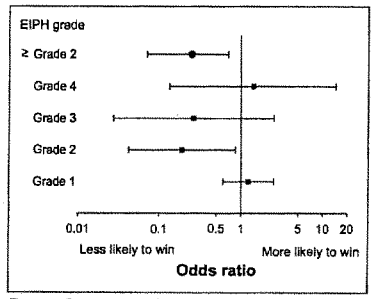


Figure 5—Forest graph depicting odds ratios and 95% confidence intervals for probability of winning as a function of severity of EIPH among Thoroughbred racehorses (n = 744) in Melbourne, Australia, examined between March 1 and June 18, 2003, for EIPH after racing. Reference value is horses without EIPH (grade 0).

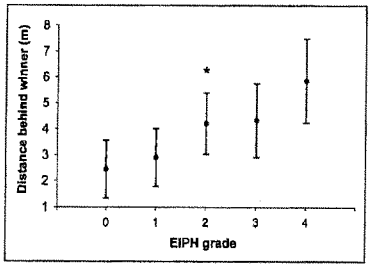


Figure 6—Least square mean distance horses finished behind the winner as a function of severity of EIPH among Thoroughbred racehorses (n = 744) in Melbourne, Australia, examined between March 1 and June 18, 2003, for EIPH after racing. Error bars represent SE. *Significantly ($P < 0.05$) different from value for horses with grade 0 EIPH.

ference in distance finished behind the winner for horses with grade 2 EIPH, compared with horses with no evidence of EIPH.

Earnings were also associated with EIPH severity grade. Horses with EIPH severity grade ≤ 1 were 3.03 times as likely (95% CI, 1.33 to 7.96; $P = 0.002$) to be in the 90th percentile or higher for race earnings as were horses with EIPH severity grade ≥ 2.

Discussion

Results of the present study corroborate findings of previous studies[1-3,5] in which a high incidence of EIPH was found in Thoroughbred racehorses. Moreover, the present study revealed a consistent association, for Thoroughbred horses racing in Melbourne, Australia, between the presence of EIPH of severity grade ≥ 2 and lower odds of winning or finishing in the first 3 positions, finishing a longer distance behind the winner, and a lower likelihood of being in the 90th percentile or higher for race earnings. We conclude, therefore, that EIPH is associated with impaired racing performance among Thoroughbred horses racing without treatment with furosemide or application of nasal dilator strips. Detection of an association between EIPH and performance in the present study does not prove causation. However, the high prevalence of EIPH severity grade ≥ 2 (18.6%) in the present study and its association with measures of performance, combined with the well-documented effects of spontaneous or experimentally induced EIPH on lung function and arterial oxygen tension during exercise,[9,10] suggest that EIPH is an important cause of impaired performance in Thoroughbred horses racing under the conditions of this study.

The association between EIPH and performance has been the subject of a number of studies.[1,11-15] In those studies, a diagnosis of EIPH was made on the basis of detection of blood at the nostrils or detection of blood in the trachea or mainstem bronchi during endoscopic examination. However, use of epistaxis as the sole diagnostic criterion for EIPH is problematic, inasmuch as epistaxis is an insensitive indicator of EIPH (only 6/744 [0.8%] horses in the present study had epistaxis) and is usually present only in horses with severe EIPH (5/6 horses in the present study with epistaxis had grade 4 EIPH). Consequently, studies in which epistaxis is used as the sole criterion for diagnosing EIPH underestimate the incidence of EIPH and include almost exclusively those horses with the most severe form of the disorder. Such studies[12,14,15] consistently demonstrate an association between epistaxis and impaired racing performance, as measured by the proportion of horses that win or finish in the first 3 positions. However, because EIPH was not detected in most affected horses, these studies do not provide information regarding the effect of lesser degrees of EIPH not associated with epistaxis. Studies relating epistaxis with racing performance therefore provide only limited information regarding the association of EIPH and performance.

Studies[1,2,3,13] of Thoroughbred racehorses that have relied on tracheobronchoscopic examination for diagnosis of EIPH have, with 1 exception,[15] not detected an

association between EIPH and performance. Possible reasons for this discrepancy between results of the present study and results of these previous studies include differences in study population, study design (including selection of horses), time between racing and endoscopic examination, sophistication of statistical analyses, and statistical power.

Reliance on tracheobronchoscopic examination for detection of EIPH presumes that blood will be present in the trachea or major bronchi at the time of examination in horses that have the disorder. Presumably, small quantities of hemorrhage in the peripheral regions of the lung may not be evident as blood in the trachea, and hemorrhage may not be detectable if insufficient time has elapsed between the occurrence of hemorrhage and tracheobronchoscopic examination for rostral movement of blood. Failure to detect minimal hemorrhage may not have adversely influenced results of the present study, however, as grade 1 EIPH was not associated with impaired performance. Furthermore, assuming that EIPH occurred during racing, the high tidal and minute volumes in horses during racing could be expected to propel blood rostrally, thereby minimizing the number of horses with false-negative tracheobronchoscopic results. These considerations highlight the inadequacy of our knowledge of the dynamics of pulmonary hemorrhage in horses during and after exercise. Although tracheobronchoscopic examination may have falsely ruled out a diagnosis of EIPH in some horses, we believe that this would most likely have occurred only in horses with minimal hemorrhage and would not have affected the outcome of the present study.

Previous studies of the association between EIPH and performance in Thoroughbred horses have, with 1 exception,[15] examined Thoroughbred horses racing in the United States, whereas the present study examined only horses racing in a single state in Australia. Geographic differences in airway health; racing and training conditions, including track surface; prevalence of other respiratory diseases, including inflammatory airway disease; training techniques; and medication use, among other factors, may have the potential to affect the predisposition to EIPH. Although associations between most of these variables and EIPH have not been demonstrated and we are not aware of studies documenting geographic differences in prevalence of EIPH, the possibility of regional differences should be considered when extrapolating results of the present study to conditions in other racing jurisdictions.

A previous study[4] of Standardbred horses racing in New York detected a higher prevalence of EIPH, defined as blood covering more than half the tracheobronchial tree, in horses finishing seventh or eighth (33%) than in horses finishing first or second (21%). The authors of that study concluded that EIPH adversely affected performance, which is consistent with results of the present study. However, subsequent statistical analysis of the data led to the suggestion that EIPH may be associated with enhanced performance.[4] These discrepant interpretations of the same data highlight shortcomings in the design and analysis of the study, including failure to control for variables that may impact performance, such as furosemide administration,[16] use of a conservative definition of EIPH, and the lack of a grading system for severity of EIPH. The definition of EIPH in the study by MacNamara et al[6] corresponds to grade 3 EIPH in the present study. Importantly, the previous study indicated that the proportion of horses finishing first or second that had chronic obstructive pulmonary disease (ie, excess tracheal mucus) was lower than the proportion of horses finishing seventh or eighth that had chronic obstructive pulmonary disease (10% and 39%, respectively), leading others to conclude that the presence of tracheal mucus is associated with poor performance.[4] The prevalence of excessive tracheal mucus in the present study was low, and the presence of tracheal mucus was not associated with performance (data not shown).

Horses in the present study were not medicated with furosemide before racing, whereas horses in previous studies[1,2,5] that did not detect an association between performance and EIPH raced in jurisdictions that permitted use of furosemide on the day of racing. This could have affected results of these studies in 2 ways. First, furosemide administration is associated with better performance in Thoroughbred racehorses.[7] Thus, administration of furosemide to horses with EIPH may have attenuated or mitigated any detrimental effects of EIPH on performance, separate from any effect furosemide may have had on severity of EIPH, thereby preventing detection of an association between EIPH and impaired performance. Second, furosemide may have reduced the severity of EIPH, with a consequent improvement in performance. Currently, furosemide has not been demonstrated to reduce the severity of EIPH in horses under competitive racing conditions, although it does reduce the RBC count in bronchoalveolar lavage fluid collected after intense exercise on a treadmill.[17,18] It is also conceivable that furosemide exerts concurrent and independent effects on performance and severity of EIPH. Horses in the present study had not been medicated with furosemide, which may have facilitated detection of an association between EIPH and performance that was not detectable in studies involving horses administered furosemide.

Previous studies[1,2,5,15] have examined fewer horses than the present study, thereby reducing their ability to detect significant associations between EIPH and performance. Statistical power of the present study was enhanced by use of analytical techniques that account for the effects of confounding and colinearity among independent variables. Furthermore, previous studies examined only race placement as an indicator of performance, whereas the present study examined race placement, money earned, and distance finished behind the winner. The large number of horses in the present study, use of additional indicators of performance, and adjustment for confounding factors may have enabled us to detect an association between EIPH and performance that other studies were unable to detect.

Cross-sectional studies such as the present study and others[1,2,5,15] that have investigated the association between EIPH and performance are susceptible to selection bias unless careful attention is paid to recruitment

of subjects. Furthermore, the validity of the study is enhanced if the study sample is shown to be representative of the population from which it is drawn. Whereas previous studies have either not identified horses to be included in the study before racing, have examined horses on the basis of race placement,[3] or have not provided criteria used to include horses in the sample group,[3] the present study enrolled horses before racing, and the sample of horses that was examined was representative of the study population in regard to age and sex distributions and proportions of horses that won or finished in the first 3 positions. Furthermore, horses were examined only once, thereby preventing statistical and analytical problems associated with multiple examinations of the same horse. These efforts increase the likelihood that results of the present study can be extended to the larger population of Thoroughbred horses racing without medication with furosemide or application of nasal dilator strips. Whether the results of this study apply to horses of other breeds or horses racing after medication with furosemide or application of nasal dilator strips is unknown.

In the present study, an association between EIPH and performance was not detected when we defined presence of EIPH as horses with severity grade ≥ 1 but was detected when we defined EIPH as horses with severity grade ≥ 2. Our inability to detect an association between EIPH and performance when EIPH was defined as severity grade ≥ 1 was attributable to the large number of horses with grade 1 EIPH and the lack of a detectable effect of grade 1 EIPH on performance. Furthermore, the fact that the association between EIPH and performance when EIPH was defined as severity grade ≥ 2 was not attributable to the influence of a large number of horses with grade 3 or 4 EIPH indicates that EIPH of moderate severity is associated with impaired performance. The finding that grade 1 EIPH was not associated with impaired performance raises the question of whether minor hemorrhage has any clinical importance. Whether horses with grade 1 EIPH progress to having hemorrhage of greater severity is unknown.

On the basis of results of studies[9,10,e] of physiologic variables in horses with spontaneous or experimentally induced EIPH, it is plausible that there is an effect of EIPH on performance and that this effect may be related to the volume of blood in the airways. Arterial partial pressure of oxygen is lower during strenuous treadmill exercise in horses with EIPH than in unaffected horses,[9] and instillation of 200 mL of autologous blood into the airways of horses alters respiratory function at rest and reduces the maximal rate of oxygen consumption during exercise on a treadmill.[10,e] However, the effects of blood instillation on oxygen consumption and respiratory function appear to be related to the volume of blood instilled, with effects being detectable during exercise only after instillation of large volumes (200 mL) of blood.[e] This could explain our observation that there was no detectable association between grade 1 EIPH and performance in the present study, even though there was an association with EIPH severity grade ≥ 2 and performance and an association between severity of EIPH and severity of impaired performance.

On the basis of results of the present study, we conclude that EIPH is associated with impaired performance by Thoroughbred horses racing in Australia without medication with furosemide or use of nasal dilator strips. The association between EIPH and impaired performance was apparent as a reduction in the likelihood that affected horses would win or finish in the first 3 positions, an increase in the distance that affected horses finished behind the winner, and a decreased likelihood that affected horses would have high winnings. Furthermore, there was an apparent dose-response relationship between severity of EIPH and severity of impaired performance, as evidenced by the association between severity of EIPH and distance the horse finished behind the winner.

a. Model CF-100TL (1.7 m in length and 1.1 cm in diameter) endoscope, Shirakawa Olympus Co Ltd, Tokyo, Japan.
b. i-RIS, Racing Victoria Ltd, Flemington, Victoria, Australia.
c. Bureau of Meteorology and Environmental Protection Authority, Melbourne, Victoria, Australia.
d. SAS, version 9.1, SAS Institute Inc, Cary, NC.
e. McKane SA, Bayly WM, Sides RH, et al. Autologous blood infusion into the lungs interferes with gas exchange and performance in exercising horses (abstr), in *Proceedings*. World Equine Airways Symp 1998;28.

References

1. Pascoe JR, Ferraro GL, Cannon JH, et al. Exercise-induced pulmonary hemorrhage in racing Thoroughbreds: a preliminary study. *Am J Vet Res* 1981;42:703–707.
2. Raphel CF, Soma LR. Exercise-induced pulmonary hemorrhage in Thoroughbreds after racing and breezing. *Am J Vet Res* 1982; 43:1123–1127.
3. Sweeney CR, Soma LR, Maxson AD, et al. Effects of furosemide on the racing times of Thoroughbreds. *Am J Vet Res* 1990; 51:772–778.
4. Rohrbach BW. Exercise-induced pulmonary hemorrhage, chronic obstructive pulmonary disease, and racing performance. *J Am Vet Med Assoc* 1990;196:1563–1564.
5. Birks EK, Shuler KM, Soma LR, et al. EIPH: postrace endoscopic evaluation of Standardbreds and Thoroughbreds. *Equine Vet J Suppl* 2002;34:375–378.
6. MacNamara B, Bauer S, Iafe J. Endoscopic evaluation of exercise-induced pulmonary hemorrhage and chronic obstructive pulmonary disease in association with poor performance in racing Standardbreds. *J Am Vet Med Assoc* 1990;196:443–445.
7. Gross DK, Morley PS, Hinchcliff KW, et al. Effect of furosemide on performance of Thoroughbreds racing in the United States and Canada. *J Am Vet Med Assoc* 1999;215:670–675.
8. Hinchcliff KW, Jackson MA, Brown JA, et al. Tracheobronchoscopic assessment of exercise-induced pulmonary hemorrhage in Thoroughbred racehorses. *Am J Vet Res* 2005;66:596–598.
9. Sanchez A, Couetil LL, Ward MP, et al. Effect of airway disease on blood gas exchange in racehorses. *J Vet Intern Med* 2005; 19:87–92.
10. Art T, Tack S, Kirschvinck N, et al. Effect of autologous blood lung instillation on pulmonary function and tracheobronchial wash cytology. *Equine Vet J Suppl* 2002;34:442–446.
11. Sweeney CR, Soma LR, Bucan CA, et al. Exercise-induced pulmonary hemorrhage in exercising Thoroughbreds: preliminary results with pre-exercise medication. *Cornell Vet* 1984;74:263–268.
12. Takahashi T, Hiraga A, Ohmura H, et al. Frequency of and risk factors for epistaxis associated with exercise-induced pulmonary hemorrhage in horses: 251,609 race starts (1992–1997). *J Am Vet Med Assoc* 2001;218:1462–1464.
13. Kim B, Hwang Y, Kwon C, et al. Survey on incidence of exercise induced pulmonary hemorrhage (EIPH) of Thoroughbred racehorses in Seoul racecourse. *Korean J Vet Clin Med* 1998;15:417–426.
14. Kim B, Kim J, Ryu S, et al. The effect of exercise induced

pulmonary hemorrhage (EIPH) on performance of Thoroughbred racehorses in Seoul racecourse. *Korean J Vet Clin Med* 1998;15:427–431.

15. Mason DK, Collins EA, Watkins KL. Exercise-induced pulmonary haemorrhage in horses. In: Snow DH, Persson SGB, Rose RJ, eds. *Equine exercise physiology*. Cambridge, England: Granta Publications, 1983;57–63.

16. Morley PS, Hinchcliff KW. Association between race time and furosemide administration in Standardbred race horses. In *Proceedings*. Annu Meet Am Assoc Equine Pract 2004;50:274–275.

17. Geor RJ, Ommundson L, Fenton G, et al. Effects of an external nasal strip and frusemide on pulmonary haemorrhage in Thoroughbreds following high-intensity exercise. *Equine Vet J* 2001;33:577–584.

18. McDonough P, Kindig CA, Hildreth T, et al. Effect of furosemide and the equine nasal strip on exercise-induced pulmonary haemorrhage and time-to-fatigue in maximally exercising horses. *J Equine Comp Exerc Physiol* 2003;1:177–184.

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON ENERGY AND COMMERCE

2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–6115
Majority (202) 225-2927
Minority (202) 225-3641

January 8, 2014

Dr. Lawrence Soma, VMD
Professor Emeritus of Anesthesia
And Clinical Pharmacology
School of Veterinary Medicine
University of Pennsylvania
New Bolton Center
382 West Street Road
Kennett Square, PA 19348

Dear Dr. Soma,

Thank you for appearing before the Subcommittee on Commerce, Manufacturing, and Trade on Thursday, November 21, 2013 to testify at the hearing entitled "H.R. 2012, a bill to improve the integrity and safety of interstate horseracing, and for other purposes."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions by the close of business on Wednesday, January 22, 2014. Your responses should be e-mailed to the Legislative Clerk in Word format at **Kirby.Howard@mail.house.gov** and mailed to Kirby Howard, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Lee Terry
Chairman
Subcommittee on Commerce,
Manufacturing, and Trade

cc: Jan Schakowsky, Ranking Member, Subcommittee on Commerce, Manufacturing, and Trade
Attachment

UNIVERSITY OF PENNSYLVANIA
THE SCHOOL OF VETERINARY MEDICINE
NEW BOLTON CENTER
382 WEST STREET ROAD
KENNETT SQUARE, PA 19348
610-925-6265 or 610 459 2471

January 21, 2014

Honorable Lee Terry, Chairman
Committee on Energy and Commerce,
2125 Rayburn House Office Building,
Washington, D.C. 20515.

Dear Representative Terry,

Attached are response to questions submitted by the Honorable Joe Pitts as a followup to testimony presented on Thursday, November 21, 2013 before the Subcommittee on Commerce, Manufacturing, and Trade on "H.R. 2012, a bill to improve the integrity and safety of interstate horseracing, and for other purposes." If you have any further questions please free to contact me.

Sincerely yours,

Lawrence R. Soma, VMD, DACVA
Professor Emeritus of Anesthesia and Clinical Pharmacology

The Honorable Joe Pitts

1. On November 13th, the Blood horse magazine presented a piece on a Texas based compounding pharmacy ("Texas Compounder Draws Industry Scrutiny" by Frank Angst http://www.bloodhorse.com/horse-racing/articles/81992/texas-compounder-draws-industry-scrutiny). On its website, the compounding pharmacy indicates that they will "work with your veterinarian to supply quality medicinal compounds specifically formulated for your animals." The article goes on to say, "The compounder is known to racing regulators and industry leaders in Texas as the manufacturer of mysterious products with names that suggest performance-enhancing effects: Equine Growth Hormone; Game Changer; Exacta; and Race Ready, to name a few."

How big of a problem are the compounding pharmacies, and what challenges do they present to the horse industry testing laboratories?

Response

The article cited adequately describes the problems the racing and sports industries face with many compounding pharmacies. Many present a façade that suggest outstanding professionalism and legitimacy and yet provide to the industry compounds that can have performance-enhancing capabilities, some that at best are harmless, and unfortunately some that may be harmful to the horse.

There are, as was pointed out in the article, legitimate places for compounding pharmacies. Many of the therapeutic medications are supplied by compounding pharmacies and are the sole source of medications no longer manufactured by established pharmaceutical companies. Unfortunately, the quality control of some of the compounders can be questioned, as concentrations on the labels do not match the actual concentrations of substances contained in the compounded formulations. Many concerned veterinarians have requested equine laboratories to test the products to establish the specific concentration of the medication. This concern was also pointed out by Dr. Scott Stanley of the California Equine Testing Laboratory, and such "mislabeling" has been verified by Dr. Cornelius Uboh of the Pennsylvania Equine Toxicology and Research Laboratory.

It must also be pointed out that these pharmacies are compounding drugs that are purchased and used by trainers and veterinarians. The current drug culture fuels this approach to racing, and sports in general. The horse is not a willing participant in the drugs that are administered and may enhance performance and are potentially harmful to the well-being, safety and health of the horse. What compounding pharmacies produce are neither FDA-regulated, nor are Boards of Pharmacy restrictions placed on what can and cannot be compounded and sold as over-the-counter products.

The challenge to the racing industry is for the industry to mount a concerted effort in developing methods to detect, quantify and confirm these drugs in plasma and urine. It must investigate this list of possible drugs, determine which have the greatest potential for enhancing performance and harming the horse, prioritize this list and provide funds to develop analytical methods and determine the harmful effects in the horse.

2. In the June 1998 issue of Journal of Veterinary Pharmacology and Therapeutics, you and Dr. Cornelius Uboh from the Pennsylvania Equine Toxicology and Research Laboratory, reviewed furosemide (Lasix) in horse racing: its effects and regulation. One of your conclusions was that "The existing literature references suggest that furosemide has the potential of increasing performance in horses without significantly changing the bleeding status."

   Would you please elaborate on this?

Response

Effect of Furosemide on Exercise-Induced Pulmonary Hemorrhage (EIPH; Bleedings in Racehorses).

Furosemide has been used empirically for many years by the racing industry for the control of exercise-induced pulmonary hemorrhage (EIPH) or "bleeding" in racehorses. Its use in horses for this purpose is controversial and has been criticized by organizations outside and inside of the US racing industry. Despite the use of furosemide, horses continue to present blood in the trachea after exercise. No studies have, so far, shown a complete absence of blood from the trachea, in horses diagnosed with EIPH post-race or exercise, as a result of furosemide administration [1-7]. One study did, however, report that 64 % of Thoroughbred horses administered furosemide before exercise had a decrease in blood in the trachea [8]. A recent study conducted at high altitude when compared to saline, furosemide showed a slight reduction in EIPH in horses which competed twice, once with furosemide and once with saline. The reduction in severity score when the horses were administered furosemide was 1, compared to 0.6 reductions in severity score when the horse were administered saline. The study was performed at high altitude where bleeding was less severe. All horses on furosemide lost weight, the authors did not report the difference in racing time between the 2 groups of horses. [15] The majority of reports published so far indicate that furosemide does not prevent EIPH in horses.

Furosemide and Performance

Literature available on this subject suggests that furosemide has the potential of increasing performance in horses without significantly changing the bleeding status. In a race track study conducted on Thoroughbred horses, there was an improvement in racing times in many horses after the administration of furosemide with similar observation in Standardbred horses [9, 10]. One study examined the records of 22,589 Thoroughbred horses racing in the US and Canada with and without pre-race administration of furosemide. The conclusion drawn from this study was similar to those of less extensive studies; horses that were administered furosemide raced faster, earned more money, and were more likely to win or finish in the top 3 positions than horses that were not administered furosemide [11]. A study which examined the effects of furosemide on the racing times of horses without EIPH under racing conditions showed an increase in racing times in many of the horses. The difficulty in the conduction of this study was based on the fact that it is difficult to find a population of horses that do not bleed following exercise, but the overall conclusions were similar to those of other independent studies [3, 10].

Furosemide is a diuretic (water pill); therefore, its administration stimulates urination within 10 minutes, resulting in the loss of considerable volume of body fluids in the form of urine. Results from horses exercising on a treadmill indicated that the increase in speed was due to significant weight loss produced by loss of body fluids (dehydration). The improvement in racing time and performance by the

administration of furosemide was not by any specific stimulatory or direct ergogenic effects on the horse, but based strictly on the reduction in body weight. Thus, the sudden weight loss due to water loss (diuresis) induced by furosemide allowed the horse to run faster. This effect was reversed by the addition of an average of 16.1 kg (35.4 lbs) of added weight to the horse which was the estimated weight loss due to diuresis produced by furosemide administration 4 hours before exercise [12, 13]. Other investigators have also concluded that the reason for the increase in speed of the horse was loss of weight due to loss of body fluids produced by the administration of furosemide [14]. Replacing this weight loss negates the effect of furosemide administration.

In summary, no studies have shown that the increase in performance was due to a reduction in pulmonary hemorrhage. No studies have shown a complete cessation of bleeding in the horse following furosemide administration. The statement that the administration of furosemide is necessary in US racing has no scientific background and is invalidated by racing of horses in the rest of the world where the use of furosemide on race day is not allowed. It also should be pointed out that in Standardbred racing in Pennsylvania approximately 30% of the horses do not race on furosemide, compared to the Thoroughbred industry where more than 95 % of the horses race on furosemide.

It should also be pointed out that there is a bit of hypocrisy in the industry that spends millions of dollars on drug testing to prevent the administration of performance-enhancing drugs but allows, on race day, a drug which has been shown for years to improve performance.

References

1. Pascoe JR. Why does exercise induced pulmonary haemorrhage occur? Equine Veterinary Journal 1985;17:159-161.
2. Pascoe JR, Ferraro GL, Cannon JH, et al. Exercise-induced pulmonary hemorrhage in racing thoroughbreds: a preliminary study. American Journal of Veterinary Research 1981;42:703-707.
3. Sweeney CR, Soma LR, Maxson AD, et al. Effects of furosemide on the racing times of Thoroughbreds.[see comment]. American Journal of Veterinary Research 1990;51:772-778.
4. Sweeney CR, Soma LR. Exercise-induced pulmonary hemorrhage in thoroughbred horses: response to furosemide or hesperidin-citrus bioflavinoids. Journal of the American Veterinary Medical Association 1984;185:195-197.
5. Sweeney CR, Soma LR, Bucan CA, et al. Exercise-induced pulmonary hemorrhage in exercising Thoroughbreds: preliminary results with pre-exercise medication. Cornell Veterinarian 1984;74:263-268.
6. Birks EK, Shuler KM, Soma LR, et al. EIPH: postrace endoscopic evaluation of Standardbreds and Thoroughbreds. Equine Veterinary Journal 2002;Supplement.:375-378.
7. Erickson BK, Erickson HH, Coffman JR. Pulmonary artery and aortic pressure changes during high intensity treadmill exercise in the horse: effect of frusemide and phentolamine. Equine Veterinary Journal 1992;24:215-219.
8. Pascoe JR, McCabe AE, Franti CE, et al. Efficacy of furosemide in the treatment of exercise-induced pulmonary hemorrhage in Thoroughbred racehorses. American Journal of Veterinary Research 1985;46:2000-2003.
9. Soma LR, Birks EK, Uboh CE, et al. The effects of frusemide on racing times of Standardbred pacers. Equine Veterinary Journal 2000;32:334-340.
10. Soma LR, Laster L, Oppenlander F, et al. Effects of furosemide on the racing times of horses with exercise-induced pulmonary hemorrhage. American Journal of Veterinary Research 1985;46:763-768.

11. Gross DK, Morley PS, Hinchcliff KW, et al. Effect of furosemide on performance of Thoroughbreds racing in the United States and Canada.[see comment]. Journal of the American Veterinary Medical Association 1999;215:670-675.
12. Hinchcliff KW, McKeever KH, Muir WW, 3rd, et al. Effect of furosemide and weight carriage on energetic responses of horses to incremental exertion. American Journal of Veterinary Research 1993;54:1500-1504.
13. Hinchcliff KW, McKeever KH, Muir WW, et al. Furosemide reduces accumulated oxygen deficit in horses during brief intense exertion. Journal of Applied Physiology 1996;81:1550-1554.
14. Zawadzkas XA, Sides RH, Bayly WM. Is improved high speed performance following frusemide administration due to diuresis-induced weight loss or reduced severity of exercise-induced pulmonary haemorrhage? Equine Veterinary Journal 2006; Supplement.:291-293.
15. Hinchcliff KW, Morley PS, Guthrie AJ. Efficacy of furosemide for prevention of exercise-induced pulmonary hemorrhage in Thoroughbred racehorses. J Am Vet Med Assoc 2009;235:76-82.

3. Mr. Hanrahan states in his written testimony: "Turning to H.R. 2012, the NHBPA opposes its enactment because the bill attempts to address a problem that in reality does not exist, and purports to do so by employing an organization, the United States Anti-Doping Agency ("USADA"), which has neither the experience nor the resources to carry out a legislatively assigned task of regulating medication in the horse racing industry."

   Do you agree with the NHBPA that this bill attempts to address a problem that does not exist?

Response

I do not agree, on the-other-hand considerable progress has been made on 2 fronts by the Horse Racing Industry in the US.

In the drug- control area, anabolic steroids have been banned from use in North America and the intra-articular injection of the equine joint with corticosteroids has been regulated which has resulted in the curtailment of injection of these agents close to race time. With the improvement in instrumentation, analytical methods have been developed allowing for simultaneous screening of 60 anabolic and androgenic steroids in equine plasma. Similar methods have been developed for other drugs allowing for screening of hundreds of drugs in each sample. There is room for growth and improvement in the drug testing sector. Regulators must be committed and willing to equip their respective laboratories with the right personnel and instrumentation capable of detecting drugs at low concentrations that are still capable of enhancing performance.

National guidelines were subsequently published by RMTC which includes the intra-articular injection of corticosteroids. Included in this list of drugs were guidelines for withdrawal times for the use of 24 of commonly used therapeutic drugs. This allows for treatment of horses during training, and if used properly should not be a violation on race day (see Testimony before the House of Representatives, Subcommittee on Commerce, Manufacturing, and Trade Nov. 21, 2013; Rules Regarding Medications)

On the second front, progress has been made in the Racing Industry Laboratory Accreditation Program; prior to 2008, only 5 of the 18 US Racing Laboratories were accredited to ISO/IEC 17025

Guidelines, but as of June 2013, 10 of the 16 were accredited. A committee appointed by the Racing Medication and Testing Consortium (RMTC) was charged with developing an accreditation program for the Equine Racing Industry. This is in addition to, not a substitute for, ISO/IEC 17025 international standards. The aim of the program was to further improve, upgrade and standardize the quality of analysis by equine laboratories and to assure that all laboratories have similar capabilities. The requirements for this second level of accreditation are extensive and were guided by the requirements outlined by the U.S Anti-Doping Agency.

To date, 8 racing laboratories are involved in some phase of the accreditation process and 2 laboratories have already been accredited (see Testimony before the House of Representatives, Subcommittee on Commerce, Manufacturing, and Trade Nov. 21,2013; Accreditation of Racing Laboratories to ISO/IEC 17025:2005 Guidelines).

Presently, equine laboratories in the US do not have similar capabilities in personnel and instrumentation and this disparity threatens reliability and efficiency of testing. The solution to this problem must be considered a priority by Regulators.

In summary, considerable progress has been made in these two fronts, unfortunately accreditation of racing industry laboratories to the ISO/IEC 17025:2005 Guidelines and adopting the RMTC medication guidelines are voluntary. It is the responsibility of each State Racing Commission or Authority to adopt and finance changes in their specific laboratory and adopt and enforce nationally suggested medication rules. Any of the stake-holders in the racing industry can influence each State Racing Commission or Authority and object to the enforcement of a specific regulation. The industry as a whole or each State can yield to pressure brought about by stake-holders, as there is no over-ridding agency or authority in the racing industry to enforce new regulations and insure that all racing jurisdictions are in compliance. The industry is well aware of the many changes in US racing that are required to improve its image; the difficulty is enactment, finance and enforcement. Various stake-holders can prevent changes at both the national and the state levels. To insure fairness in racing throughout the US, rules and racing regulations agreed upon must be enacted by all racing jurisdiction and drug administration on race day eliminated.

4. In your oral remarks, you indicated that there are new drugs being manufactured all the time. What can you tell us about the relatively new substance ITPP (Myo-Inositol Trispyrophosphate), a drug that substantially increases the oxygen in the blood and was described by one vet as a high-octane milkshake in a syringe – the "go-fast" drug. Where is it being made (China/Ukraine) and is it detectable yet by any of the racing industry testing labs?

Response

Myo-inositol trispyrophosphate (ITPP) was reported to enter the red blood cells, thus changing the oxygen saturation curve and in this manner alter the way oxygen is released into body tissues. In theory, this mechanism would improve delivery of oxygen to fatigued muscles and, thus, improve performance and endurance. The Hong Kong laboratory developed and published a method for ITPP detection and the Canadian laboratory has shown that when ITPP is administered to horses it can be detected. Our laboratory has shown that ITPP does not alter the equine red blood cell oxygen saturation curve. Based on the dose administered to experimental animals, the cost to administer a dose of ITPP to the horse to determine the proposed effect would be prohibitory. ITPP is not available on the open market except as

analytical standards in small quantities. For studies conducted in our laboratories, ITPP was synthesized at great expense. Trainers can purchase on-line what has been labeled as ITPP but in our hands, these compounds did not turn out to be ITPP, but the drug tamoxifen, an anti-cancer drug used for the treatment of breast cancer, which was sold on the internet as ITPP.

We are not sure where ITPP is being illegally manufactured but what we do know is that neither Hong Kong nor the Canadian Laboratory with verifiable methods of detection has reported the presence of ITPP in a post-race sample. New drugs are continuously being manufactured and are legally and illegally distributed worldwide. Horse racing is an international sport, which makes the control of illegal infiltration of drugs even more difficult. The problem of new drugs and their effect on horse racing should be matched with concerted research efforts into the effect of these drugs in the horse and development of sensitive analytical methods to detect and confirm the presence of these substances.

5. My understanding is that in Pennsylvania there has been over $1.3 billion provided to horse racing from racino operations in the state. How much of these subsidies have gone to support the testing and research you call for in your testimony?

Response

Since the enactment of ACT 71 which allowed racino operations in the State of Pennsylvania, no additional funds have been allocated toward equine drug testing, research to improve equine drug testing, studies in equine pharmacology or research dedicated to the improvement of equine health and welfare. The only exception has been the requirement in the ACT to improve the back-side of race tracks; in this context better housing facilities have been provided for horses stabled on the grounds of Pennsylvania racetracks.

6. Is there any excuse for a lack of resources for drug testing and integrity issues in racing states with generous slots or "video lottery terminal" subsidies for horse racing purse prizes?

Response

In the original bill no funds were allocated toward increased drug testing for difficult-to-detect-drugs, increased research in drug detection or improvement of the health, safety and welfare of the horse. The racing industry rides on the back of the horse, but no research and development funds go toward improvement of the health, safety and welfare of the horse which carries the horse racing industry.

The horse has no voice, and constant cries by advocates for the horse have not been heard. There is no excuse for each state with racino revenue not to provide a certain percentage of this revenue for equine research and drug detection. There are a number of diseases and injuries, minor and catastrophic that can be linked to racing, and research in these areas will benefit the horse and the industry.

Having commented on research and forensic laboratory funding, it is important to also state that no other Racing Jurisdiction in United States spends more money on dedicated research related to medications in the horse than the State of Pennsylvania Racing Commissions in the past 34 years. These funds were and continue to be from racing revenue not racino revenue.

7. As a member of Racing Medication and Testing Consortium (RMTC), can you explain why the harness racing group – U.S. Trotting Association (USTA) – dropped out of RMTC? Why does USTA not endorse the RMTC guidelines for clenbuterol?

Response

I am no longer an active member of RMTC or a member of the USTA, therefore my response to this question would be mere speculation.

The answer to the second part of the question (Why does USTA not endorse the RMTC guidelines for clenbuterol?) can be explained by the pharmacology of the drug and the frequency of racing of the Standardbred horse compared to the Thoroughbred horse.

8. Can RMTC or any other private racing group enforce such proposed medication rules in all 38 racing jurisdictions?

Response

The RMTC and other organizations have made suggestions on laboratory accreditation, medication rules, equine health and safety issues and have numerous meetings on the elimination of furosemide as a race-day medication. The industry is well aware of the many changes in US racing that are required to improve its image; the difficulty is enactment, adequate finance and enforcement. None of the equine industry organizations as they are currently structured has the authority to enforce any rule or regulation that would improve the integrity of racing and improve the health and welfare of the horse in all 38 US racing.

New medication rules currently being implemented and the drive to accredit racing laboratories are voluntarily and being enforced by each racing jurisdiction. If the stake-holders agree, the new rules are readily enforced, if not there is considerable resistance there is difficulty in implementing new rules. The gorilla in the room is the elimination of race-day administration of furosemide (Lasix). Many agree that the North America Racing Industry should join the rest of the world and ban all race day medications; others have a strikingly different view.

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS

Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–6115
Majority (202) 225–2927
Minority (202) 225–3641

January 8, 2014

Mr. Travis Tygart
CEO
United States Anti-Doping Agency
5555 Tech Center Drive, Suite 200
Colorado Springs, Colorado 80919

Dear Mr. Tygart,

Thank you for appearing before the Subcommittee on Commerce, Manufacturing, and Trade on Thursday, November 21, 2013 to testify at the hearing entitled "H.R. 2012, a bill to improve the integrity and safety of interstate horseracing, and for other purposes."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions by the close of business on Wednesday, January 22, 2014. Your responses should be e-mailed to the Legislative Clerk in Word format at **Kirby.Howard@mail.house.gov** and mailed to Kirby Howard, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Lee Terry
Chairman
Subcommittee on Commerce,
Manufacturing, and Trade

cc: Jan Schakowsky, Ranking Member, Subcommittee on Commerce, Manufacturing, and Trade
Attachment

November 21, 2013 House Hearing

Conducted by the House Energy and Commerce Subcommittee on Commerce, Manufacturing and Trade

Written response of Travis Tygart

Additional Questions for the Record

The Honorable Joe Pitts

1. **As we know now, for many years prominent cyclists were using performance enhancing substances and were never found to be in violation of cycling drug rules by the testing laboratories. As you look at it now, was this the result of them just having better chemists than the labs, a problem with lab equipment sophistication, personnel and funding, or some other chain of evidence protocol breach? Do you see any similar issues in the horse racing industry that USADA might be able to get a jump on?**

The United States Anti-Doping Agency (USADA) has learned that, in its capacity as the independent organization in the United States responsible for the overall anti-doping program including testing, education, research and the adjudication processes in the U.S. Olympic and Paralympic movement, the win-at-all-cost culture is alive and well and unless guarded against will overtake sport at every level. This uncompromising culture puts significant pressure on athletes, coaches, support personnel and sporting organizations to win by any means or manner necessary including covertly using dangerous performance enhancing drugs and other prohibited methods in direct violation of sport rules. The fame and fortune that flows from athletic success in modern sport today is enormous and no athlete or sport is immune from the temptation to win by any means.

We also know from our experience that athletes and their entourages, like we saw in the U.S. Postal Services Pro Cycling Team doping conspiracy, with significant resources, the infrastructure and sophistication will go to great lengths to win by committing sporting fraud by using prohibited and dangerous performance enhancing drugs that are undetectable by routine testing and use substances or methods in ways to minimize the risk of testing positive. For example, many cyclists during this time period as seen in our cycling investigation used erythropoietin (EPO) in low levels in an effort to thwart

testing. They also used prohibited blood transfusions that were difficult or impossible to directly detect. However, several athletes including Armstrong's teammate, Tyler Hamilton, did test positive for a blood transfusion when the investment in scientific research by USADA and others paid off and resulted in a scientifically sound blood transfusion test. This demonstrates why scientific excellence including best laboratory standards, uniform collection and testing methodologies and investment into scientific research are all equally essential to an effective anti-doping program.

Just as important, as seen in the Armstrong case (where those that perpetrated their sporting fraud were exposed and held accountable even without a positive test), a successful program must also have an investigative unit and the legal ability to discipline a cheater on the basis of reliable evidence proving they doped (e.g. documents, drug ledgers, calendars, videos, eye witnesses, etc.) other than just a positive test. This investigative component is also essential to a robust, effective program.[1]

From the information we have seen and that we received at the hearing from other witnesses, horseracing policies in the testing arena (collection and analysis) are currently woefully inadequate. There are no mandatory standard collection processes, little to no ability to perform out-of-competition testing (much less actually do it), no uniform chain of custody or shipping protocols, lack of harmonized testing methods at the laboratories (not to mention no uniform list of prohibited substances and methods). We understand from Dr. Soma's testimony that only 2 of the 16 laboratories meet the industry guidelines. Having 87% of the laboratories failing to meet the industry best practices should be unacceptable.

Additionally, as indicated above, there is no organization tasked to use information and intelligence to investigate those who will attempt to defraud the sport and, thus no ability to bring a case in the absence of a positive test. Of course, given the apparent weaknesses and loopholes in the current myriad of different testing programs in horseracing, only the totally incompetent fraudster would get caught by a positive test.

There is no doubt that all sport including horseracing is subject to the same win-at-all-cost attitude that will result in trainers, breeders, veterinarians, and owners resorting

[1] Testing has a dual purpose. One to deter or prevent those from using these drugs for the fear of being caught, exposed and severely sanctioned (deterrence). Second, to detect those who may take the risk and believe they are above being caught (detection).

to performance enhancing drug use and betting big on the outcome of the athletes they know to have a covert advantage.

2. **In his five minute oral statement at the hearing, Mr. Hanrahan made a distinction between drugs that have no legitimate use in horse racing and therapeutic drugs, which he described as lawful therapeutic medications administered by licensed veterinarians.**

   a. **Do you agree with this distinction where doping is defined as pertaining to illegitimate drugs only?**

No, doping is defined by sport rules not civil or criminal laws or what may be legal for a medical professional to provide. The sport rules must have clear criteria for what is prohibited and then publish that criteria and the actual list of categories of prohibited substances and methods in advance of competition.

In our Olympic human world, the criteria for a substance or method[2] to be placed on the list of prohibited substances/methods is set forth for all sports organizations in Article 4 of the WADA Code (in relevant part):

> 4.3.1 A substance or method shall be considered for inclusion on the Prohibited List if WADA determines that the substance or method meets any two of the following three criteria:
>
> 4.3.1.1 Medical or other scientific evidence, pharmacological effect or experience that the substance or method, alone or in combination with other substances or methods, has the potential to enhance or enhances sport performance;
>
> 4.3.1.2 Medical or other scientific evidence, pharmacological effect or experience that the Use of the substance or method represents an actual or potential health risk to the Athlete;
>
> 4.3.1.3 WADA's determination that the Use of the substance or method violates the spirit of sport described in the introduction to the Code.

Horseracing should engage a similar process to determine what criteria, if something different, should apply to the industry and then examine known categories of substances/methods to publish a specific list on an annual or other

[2] A prohibited method is a process or method like a blood transfusion or gene technology which is not allowed based on the criteria but is not a substance or drug.

regular basis. This is similar to the process we engage with over 256 global sport organizations who are signatories to the WADA Code.

b. **In its efforts to insure clean sport and fairness in competition, does USADA only ban drugs that are strictly illicit, that is, having no therapeutic use in human medicine, or does it ban some drugs that could under some circumstances have a legitimate therapeutic purpose?**

In this case, both illicit drugs and certain therapeutic medications may be prohibited if they meet the criteria to be banned in sport, regardless of their legitimacy and use in human medicine. For our Olympic program, we follow the World Anti-Doping Code (the "Code") when it comes to the list of prohibited substances which contains illicit, illegal as well as therapeutic drugs or substances. Notwithstanding the above, USADA and the World Anti-Doping Agency (WADA) permit athletes to apply for Therapeutic Use Exemptions (TUE) (i.e. permission to use, for therapeutic purposes, substances or methods contained in the List of Prohibited Substances or Methods where use would otherwise be prohibited). TUEs may only be granted to the athlete, in accordance with strictly defined criteria as set out in the International Standard for TUE. (In this regard, please see attached a copy of *the World Anti-Doping Code International Standard for Therapeutic Use Exemptions.*)

c. **If yes, why would it ban a potentially therapeutic drug?**

Sport is unique and governed by a uniform, common set of agreed upon rules. Certain substances or methods which have potentially therapeutic and/or medicinal effects like anabolic steroids but nevertheless in the context of sport are used or abused by athletes to enhance their performance or endanger their or their competitors' safety (and that meet the identified criteria) are not allowed.

d. **Is it the position of USADA that some therapeutic medications can also have performance enhancing effects?**

Absolutely. There are many therapeutic medications, including steroids, human growth hormone (Hgh) and erythropoietin (EPO) to name a few, that are potent performance enhancers.

3. **Mr. Hanrahan states in his written testimony: "Turning to H.R. 2012, the NHBPA opposes its enactment because the bill attempts to address a problem that in reality**

does not exist, and purports to do so by employing an organization, the United States Anti-Doping Agency ("USADA"), which has neither the experience nor the resources to carry out a legislatively assigned task of regulating medication in the horse racing industry."

Do you agree with the NHBPA that this bill attempts to address a problem that does not exist? Is it true that USADA has neither the experience nor the resources to regulate medication in the horse racing industry?

No. I think these statements are wilfully blind to the realities of competitive sport whether horseracing or human. And, in fact, Mr. Hanrahan agrees as indicated in his testimony that he supports a truly independent and transparent model. He just wants to control it. If there was no problem or threat of a problem as claimed then certainly the improvements he outlines in his testimony to the current status quo would not be needed.[3]

As we have said before, the realities of competitive sport reward the winner and cast aside the loser. When this is the reality, competitive people will go to great lengths to gain any advantage. And, those chasing the promise of victory will resort to win by any means especially when the pay out or the fame that follows is significant. And, when the system to stop this fraud is inadequate as the current system in horseracing is, even the purest, most well-intentioned competitors perceive they have no choice but to cheat to win. And, from our experience in sport, unfortunately, they will.

USADA is the national anti-doping organization (NADO) in the United States and is recognized as the official anti-doping organization for Olympic, Pan American and Paralympic sport in the United States. We are a non-governmental, non-profit organization. Our current public-private funding is for our Olympic, Paralympic and Pan American program. We would need new resources to implement the anti-doping program for the horseracing industry. We understand the legislation would allow funds currently being spent on horse testing to be used in addition to providing a uniform avenue for additional funds, if needed.

Ideally, the overall program would be done in a more effective way, eliminating redundancies and inefficiencies; and, thus possibly saving money. However, it is too early to say for sure whether the potential for money savings exists and it must be

[3] He also agrees with many of our other substantive points about the inadequacy of the current system that must be fixed (e.g. laboratory standards).

recognized that while an increase in funds may be necessary to provide an effective program, this is money that the industry cannot afford to spend. All funds into an effective program would necessarily be an investment in stopping the current reported industry revenue decline and, hopefully, as seen in the Olympic movement, restore public confidence in the sport, grow the brand and increase overall revenue.

Aside from the operational capacity which can be built as was done when we first took over Olympic sport in late 2000, USADA has demonstrated a history of technical prowess as evidenced by our current recognized anti-doping program operating under the World Anti-Doping Code and the WADA International Standards (IST). Of course, we would utilize existing experience and knowledge in the industry, where appropriate, if we were ultimately to embark on the path to handle the overall program (whether policy creation and/or implementation).

Dr. Soma testified that they are striving for best practices and in fact have essentially borrowed our laboratory standard for their *Racing Medication & Testing Consortium* standard, a standard which Dr. Soma testified "are extensive and were guided by the requirement outlined by the U.S. Anti-Doping Agency (USADA) laboratories." Mr. Hanrahan also endorsed this standard in his testimony.

Make no mistake, they did the right thing in borrowing this standard and trying to implement it; hopefully, soon all of the laboratories will meet the standard not just the current 13%. However, it is comical to say we have no experience on the one hand but on the other endorse our laboratory standards as its own. This reminds our science department of the old saying, "imitation is the sincerest form of flattery."

4. **On Compounding pharmacies and so-called supplements: What is your opinion regarding the availability and marketing of such products to race horse owners and trainers? Do you believe that they should they be banned? Have supplements been used in human athletics that have been shown to have PED effects? Do human athletes use such products to try to gain an unnatural competitive edge?**

Compounding pharmacies and dietary supplements are both a huge concern to us and our athletes.

It is too easy for unscrupulous actors to produce known prohibited drugs in compounding pharmacies or even new, designer drugs. This is why an investigative unit is critical to monitoring these rogue outfits within this industry and appropriately using

the information to protect clean competition and the rights of clean athletes whether to develop tests or initiate investigations.

The supplement industry is a large industry estimated to be over $28 billion. Certain portions of the industry aggressively attempt to sell our athletes, parents and coaches every pill, powder, tablet, or gel making claims that these products will help them to run faster, jump higher, recover quicker and get bigger, all with more energy and mental focus. Who would not want this promise, especially if these products are legal and not prohibited in sport. Unfortunately, however, we have seen illegal and prohibited synthetic drugs being sold too commonly as otherwise legitimate nutritional supplements.

Importantly, whether in our world or in horseracing, if a substance meets the criteria to be banned in sport then it should be banned whether or not it is sold as a dietary supplement (legally or masquerading as a legal product when it really is not). Many supplements sold, such as Jack 3D, which contained the banned substance Methylhexaneamine, are prohibited in sport having met the criteria as a performance enhancing drug.

As mentioned above - Methylhexaneamine, is one example of a drug prohibited in sport having met the criteria as a performance enhancing drug and is listed as a stimulant, prohibited in-competition.

We know that competitive people will go to great lengths to win, especially if they believe the substance they are using is not prohibited or that they will not get caught using it, which makes them very vulnerable to these marketing campaigns.

5. Would you please elaborate on your understanding of your responsibilities as delineated in H.R. 2012? How do you see USADA carrying out the duties of the legislation? How will you interact with horse racing industry groups, tracks and others? Can you estimate how much it might cost to carry out these responsibilities?

We understand that we have been asked to be the independent, non-government organization to handle the anti-doping program for the sport of horseracing. This would necessarily include two primary functions - one would be to coordinate and promulgate a set of uniform, mandatory anti-doping rules. These rules, while not necessarily the WADA Code and related International Standards, would be substantive where needed -

addressing areas such as collection protocols, burdens of proof, sanctions and what is prohibited. These uniform policies would also capture the procedural aspects of an effective program such as the legal process afforded to someone accused of violating the rules.

The second role would be for USADA to oversee the implementation of the uniform rules/policies and where there are gaps in the implementation of the policies to actually fill those gaps.

The operational program should have four fundamental aspects to it including: testing (collection and analysis); education, research and adjudication (investigation and prosecution).

We anticipate that the entire horseracing industry would work closely and collaboratively to restore the ideals of fair competition. Following stakeholder consultation, we would establish a democratic process to allow all industry stakeholders to have a voice and to be heard. We would go through a regular, published process to ensure constant review and improvement where needed to the policy and implementation of the policies.

In our Olympic world, we work very closely with sport where it is appropriate (not on who is tested or whether a case should be brought) but in other important areas. For our success in this arena, we need industry buy-in and support so we all are contributing to fair play and integrity in the sport.

While it is early to know for sure, from what we have been informed currently the industry-wide program spends between $35 - $45 million dollars, which in reality is a minuscule amount to protect sport from the corruption of covert fraud given the industry revenues total approximately $10.9 Billion.

<u>The Honorable Jan Schakowsky</u>

1. **I would like to address the idea of replacing the current fragmented, state commission-based system of anti-doping enforcement with a uniform, independent regime overseen by USADA.**

   a. **Your testimony emphasized USADA's "true independence" and transparency, and argued that the history of previous unsuccessful anti-doping efforts**

establishes that "partial independence is not an effective model for fighting doping in sport." Why is that the case?

There is an inherent tension and conflict of interest in having the dual responsibility to both promote and police the sport which makes it impossible to do both effectively. A sport is responsible for raising revenue, growing sponsorships, putting fans in the seats and eyeballs on the screen and in horseracing, placing bets. Anti-doping work is tough, ugly, hard work which may have a short term negative impact on the profits of a sport. These are conflicting duties and experience and history indicate that profits prevail in this conflict.

As seen in the Lance Armstrong case in the sport of cycling, USADA remained dedicated and true to our mission which mandates that we enforce the rules both fairly and consistently preserving the integrity and value of competition. If we were worried about the record books or the short term image of the team or sport or profits, we would have not done our job and it would have been far easier to talk ourselves into the wrong decision not to uniformly and fairly enforce the rules given Armstrong's hero status and sport impact.

Obviously, this would be contrary to our sole mission and obligation to the victims of sport fraud - - the fans, the public, and clean athletes. This point is also reinforced in the cases of athletes such as Floyd Landis, Tyler Hamilton and Marion Jones, who, if we had turned a blind-eye and followed a duty to promote the profitability and bottom-line of the sport, would have meant that the fraudsters would have gotten away scot-free.

b. Some say that fighting performance-enhancing drugs in sports is a losing battle. In other words, they don't approve of doping in a sport, but they argue, basically, "everyone is cheating and new ways to cheat are being developed all the time, and the drug testers will never be able to catch them all or keep up with changing methods of doping." How would you respond to this sentiment?

Of course, we hear this, mainly from those who have been caught committing sporting fraud, as an excuse or justification for their actions. And, of course, it is not true.

Tens of millions of athletes do it the right way and do not want to become frauds and inject dangerous drugs in their body and steal from their sport and their fellow competitors just to win. Fraud in sport particularly a sport like horseracing

where the gaming industry is such an integral part harms the public. No one unless you are on the inside can have confidence in the fairness of the race if particular athletes have a covert advantage. The basic principles of fairness and equality are destroyed. It is too important to throw in the towel in this fight just because some may see it as too complex. Of course, if it is decided that it is too tough then sport must change the rules to allow whatever drug, chemical, cocktail you want. Obviously, in our opinion, this would have catastrophic negative consequences and would still not provide a fair, level, safe playing field. And, needless to say, the trickle-down effect to kids in human sport would be a serious public health concern. If there were a viable economic market for this type of free-for-all sport we would already see it. This is not sport but a circus-type show with limited economic viability.

This statement is also inaccurate on another front. The cheaters might be well ahead in sports without a robust anti-doping program and a culture of drug use may have taken over but in a relatively short period of time in the U.S. Olympic movement, thanks to independent implementation of uniform policies, athletes who commit this dangerous sporting fraud are getting caught and exposed; and thus, reinforcing the deterrent impact and overall effect of the effort. Today, hope has returned to clean Olympic athletes that they can win without cheating and they do not cheat with dangerous drugs because they will be caught, exposed and sanctioned whether with a positive test or without based on reliable evidence proving their sporting fraud.

2. In preparing for this hearing, we have heard some concerns about involving USADA in the horse racing industry.

a. Some have indicated they believe H.R. 2012 to represent government overreach. How would you respond to this? I think there may be some confusion over your organization's independence or relationship with the federal government – would you care to clarify?

While it might be a convenient sound bite for those who prefer the inadequate current system, USADA is a non-governmental organization with no government employees. USADA is a 501(c)(3) non-profit, private corporation. We are not directly controlled by any government agency. We are bound by our private

agreements and the laws of this country just like every other private corporation. Importantly, the model of independence contemplated by the legislation could happen entirely by the industry through private agreement without the legislation as was done in the Olympic movement.

b. **Others balk at the idea that racing associations and tracks should enter into anti-doping agreements with USADA and pay to defray the costs of the organization's duties. I understand that the horse racing industry is currently spending somewhere in the neighborhood of $35 million on testing programs, but without any resulting certainty from participants and fans that the sport is really clean. Do you believe that it is worth it, to the horse racing industry, to work with USADA and thus achieve, in your words, "true independence"? Could they even gain, financially, in the long term from such an arrangement?**

As the global Olympic movement learned, the economic value in sport is fair competition based on the rules – not unfair, chemically corrupt competition where the athlete with the newest undetectable drug wins. Once the global Olympic movement got serious and courageously put a stake in the ground by externalizing its anti-doping efforts to an independent rule making body with input from sport and independent implementation and oversight of the rules, the shine of the Olympic rings returned and the economic value of the sport increased.

It is our belief that collaboration between the horseracing industry and USADA can achieve 'true independence' and in the long-run put a stop to unfair competition and return integrity and revenue growth to the troubled sport of horseracing.

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS

Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–6115
Majority (202) 225-2927
Minority (202) 225-3641

January 8, 2014

Dr. Sheila Lyons, DVM
Founder and Director
American College of Veterinary
Sports Medicine and Rehabilitation
21 Augusta Avenue
Brockton, MA 02301

Dear Dr. Lyons,

Thank you for appearing before the Subcommittee on Commerce, Manufacturing, and Trade on Thursday, November 21, 2013 to testify at the hearing entitled "H.R. 2012, a bill to improve the integrity and safety of interstate horseracing, and for other purposes."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions by the close of business on Wednesday, January 22, 2014. Your responses should be e-mailed to the Legislative Clerk in Word format at **Kirby.Howard@mail.house.gov** and mailed to Kirby Howard, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Lee Terry
Chairman
Subcommittee on Commerce,
Manufacturing, and Trade

cc: Jan Schakowsky, Ranking Member, Subcommittee on Commerce, Manufacturing, and Trade
Attachment

Dr. Sheila Lyons' Responses To Additional Questions for the Record

Submitted, January 22, 2014

"H.R. 2012, A Bill To Improve
The Integrity and Safety of Interstate Horseracing, and For Other Purposes."

November 21, 2013

United States House of Representatives

Energy & Commerce Committee

Subcommittee on Commerce, Manufacturing, and Trade

Sheila Lyons, DVM
Founder and Director
The American College of Veterinary Sports Medicine and Rehabilitation®
[redacted]

Dr. Sheila Lyons' Responses To Additional Questions for the Record

The Honorable Joe Pitts

1. **Race day medication and veterinary ethics**

Dinny Phipps and Stuart Janney are two prominent members of The Jockey Club who oppose raceday medication. But their horse won this year's Kentucky Derby while racing on Lasix. They explained this contradiction in a letter to the editor:

> **"While we look forward to the day that Lasix becomes a prohibited substance for all horses on race day... we believe Lasix is a performance enhancer and it is necessary to be competitive in the current medication environment."**

This seems to indicate that some horse owners give their racehorse Lasix not to prevent a medical condition, but rather to be able to compete with the other medicated horses.

- **If true, is such an administration of Lasix consistent with veterinary ethics?**

In my experience as a veterinary clinician, the motivation to use Lasix is most often based upon the drug's well established and well known performance enhancing effects that are unrelated to any effect it may have on pulmonary hemorrhage. I have been told by many trainers that they know if they persuade the horse owners to allow them to not use Lasix, if the horse loses by a margin that is in keeping with the drug's known performance enhancing benefits, they will most likely lose the client because they will be blamed for not doing everything they can that is legal to win a race. Not using Lasix will put them out of business.

It is a betrayal of veterinary ethics to use any drug for any purpose other than to improve or protect the animal's health. The administration of Lasix to all horses whose trainers simply request its administration is inconsistent with veterinary ethics. Lasix is a powerful prescription drug and may only be used in accordance with the standards of licensed veterinary practice. It is a betrayal of veterinary ethics and state board licensing regulations for veterinarians to administer, prescribe or dispense any drug without a valid veterinarian-client-patient relationship ("VCPR") established during the drug's prescription period. In order to justify the administration of Lasix during racing a veterinarian would need to examine the horse and establish a need for this drug which outweighs the risk of its potentially life, health, and safety-threatening untoward side effects. If this drug is administered under the premise that it acts to prevent pulmonary hemorrhage, the veterinarian would also be required to re-examine the horse by endoscopy shortly after it races in order to determine the success or failure of Lasix treatment as very few horses that suffer pulmonary hemorrhage have blood observable at the nostril. This is rarely done.

2. **Inappropriate to medicate unfit horses**

   If a horse is not fit or sound enough to race without race day medication, should that horse be raced in the first place?

   If a horse is unfit or unsound to race without medication, it is an unfit and unsound horse and should not be allowed to race.

3. **On May 10, 2013, the Thoroughbred Daily News writer Ryan Goldberg reported on an investigation at Aqueduct racetrack in New York that was prompted by an unusually high number of breakdowns and other horse injuries. He quoted Dr. Mary Scollay, a member of the investigative team as saying "We asked trainers, Do you have a regular medication program? All of them said no. And then we asked them, Do you use clenbuterol? (a powerful bronco-dilator with anabolic steroid properties) and they said yes, we do and we give it on a daily basis. The way they described it she says, was not like a prescription drug, which it is, but like a feed supplement you give twice a day."**

   As a vet, whose responsibility is it to be certain that prescription drugs are being used only for their intended purpose by the client, as a result of an examination diagnosis?

   It is strictly the responsibility of the prescribing veterinarian to be sure that drugs are made available exclusively for the treatment of diagnosed conditions in patients with which the licensed veterinarian has established the veterinarian-client-patient relationship ("VCPR"). It is also the responsibility of each race track's regulatory veterinarian and its' racing commission to take steps to ensure that horses at the track are not receiving any prescription drugs outside of a valid "VCPR".

   This can be achieved by regularly asking trainers what prescription drugs (such as clenbuterol) or so-called "supplements" the horses are receiving; by checking all medication containers for proper labeling; by discussing the examination findings and medical need for any drugs with the practicing and prescribing veterinarian; and for reporting any violations of the standards of licensed veterinary practice to the racetrack stewards and the state veterinary board. These mechanisms are in place to enable such monitoring but in my experience and based upon discussion with racing authorities, they are rarely if ever employed.

   This VCPR requires the taking of a patient history, conducting a physical examination which may include laboratory or other diagnostic testing as needed, making a diagnosis, developing treatment plan, conducting re-examination and full record keeping documenting all these services and examination findings. It betrays the veterinarian's oath, it fails the standards of licensed veterinary practice which all veterinarians' licenses are conditioned upon and it fails the duty of the veterinarian to both the patient and the client to make any drug available to any horseman outside of these strict guidelines of veterinary practice, as well as abiding by other regulations regarding dispensing prescription medications.

This would include:

a) Dispensing only enough medication to cover the period for treatment required to treat the diagnosed condition;
b) Properly labeling all medications in accordance with state regulations including the patient name, dose and route of administration, client name, veterinarian name and address and telephone number, and any storage or safety instructions;
c) Re-examination of the patient to determine the success or failure of the prescription drug therapy.

Trainers often request drugs (like clenbuterol) from their veterinarians based upon their belief that they will help the horse to remain in uninterrupted training. They do this knowing full well that rest is needed and are motivated by the belief that the requested drug is an enhancer of performance. Too often veterinarians oblige these requests which lead less savvy trainers to erroneously assume the drugs must be harmless and helpful.

4. **In your judgment, is the illegal drugging of horses a significant problem? Can the testing labs pick up unusual compounds or do you think these drugs go undetected?**

The illegal drugging of horses would include the administration of drugs and substances or practices that have no redeeming value except to mask injury or artificially enhance performance and the use of drugs deemed "legal" which are administered at dosages that exceed allowable levels. Illegal drugging is a significant problem in horse racing. Illegal drugging lies at the heart of the health and safety crisis we see in horse racing today.

I have practiced veterinary medicine with race horses for nearly thirty years and have worked in the industry starting as a teenager. I can never recall a time period where it was not periodically discovered that horsemen nationwide had been cheating to win by illegally drugging their horses with powerful and often dangerous substances. I believe that this problem has gotten worse with expanded access to scientific literature on the topic of performance enhancing drugs ("PED") and easy access to international or private sources for these illicit substances.

One of the reasons this form of animal abuse and cheating remains prevalent is that few racing jurisdictions have the testing equipment required to detect new illicit drugs or drug level overages. Expecting each of the 38 independent jurisdictions to keep pace with the ever advancing and highly technical field of drug detection is a plan doomed to failure (which is what we have today). This legislation will immediately correct this problem by creating a national system for drug testing and every horse tested in every race will be subject to the highest standard in laboratory testing for illicit substances. It is the only way our effort to detect harmful levels of injury-masking drugs and the presence of performance enhancing drugs can succeed.

As an example of this inability of a state regulator to keep up with the necessary scientific resources to conduct effective drug testing, I offer the following excerpt from *The Review of Mass State Racing Commission July 16, 2012 of the Massachusetts Gaming Commission*

"Equine Medication and Testing

Massachusetts racing medication policy lags many other jurisdictions. For example, the Commonwealth still allows race-day administration of phenylbutazone. Massachusetts should adopt the equine medication standards and penalties as advocated by the RMTC and ARCI.21

In order to enforce these standards, improvements must be made in testing. Laboratory Director Bruce Aspeslagh led the Massachusetts Equine Commission Laboratory for many years and the remaining staff carries on his legacy. However, in recent years the SRC has struggled to adequately staff the Director position. Much of the equipment is aged, and it would require a significant capital expense to upgrade much less bring the laboratory to an accredited status. The Commonwealth should consider entering into an RFP process to identify an accredited lab22 that can perform all necessary testing. The chain of custody (i.e., currently includes transport to lab by State Police) should be part of the review and RFP process to identify an experienced secure courier. Given the technical nature, consideration to hiring an expert to assist with RFP development should be given. From an implementation timeline, other jurisdictions contacted have indicated this is about a 90-day process to design an RFP, put out to bid, evaluate and award contract. (Note: specific Massachusetts's requirements may affect that timeline.)"

This description of drug testing inadequacies, which leaves the Massachusetts Gaming Commission's unable to adopt and enforce stricter anti-doping policies, is shared by several of the numerous independent racing jurisdictions nationwide. Racing revenues are decreasing, in part because of the (appropriate) public perception that doping is prevalent. As a result of this decrease in revenue, racing jurisdictions are unable or unwilling to invest in local testing facilities and professional staffing capable of keeping pace with the increasing and evolving abuse of doping in the sport.

Doping is becoming more sophisticated while drug testing in horse racing declines in execution as well as expertise, leading to increased dangers to horses and riders coupled with declining confidence from the patrons who wager on the sport. The only solution for this critically important testing phase of anti-doping regulation for the sport of horse racing is one that pools and shares its expertise and technical resources through a state of the science national testing program. This legislation would immediately provide that system change and in addition, USADA would bring unmatched expertise to rise to the challenge of remaining one step ahead of the cheaters. They can get the job done.

Can the testing labs pick up unusual compounds or do you think these drugs go undetected?

These drugs go undetected for prolonged periods of time and by the time the labs and regulators catch up with the cheaters, they have often moved on to the next illicit substance or practice. It is time to bring in the best anti-doping professionals, namely USADA.

The industry does not choose to dedicate sufficient resources from gaming revenues to equip and staff their anti-doping agencies so that they can keep up with the cheaters. It fails almost entirely to conduct out of competition testing despite the fact that the true anti-doping experts (WADA and USADA) have shown that this is key to effective anti-doping enforcement. The industry's failure to pool their resources and create a national anti-doping agency with nationwide authority has led to many positive drug test findings to be thrown out by courts because the tests were conducted out of state.

The other element that is underutilized by the racing industry is the monitoring of trainer stables to detect the use of drugs administered by horsemen. When these searches are carried out by track authorities, there is often knowledge of this intention in advance of such searches. This legislation would establish a fully independent authority to conduct investigations which is essential to anti-doping program enforcement success.

5. **To what do you attribute the large number of breakdowns on racetracks?**

Most catastrophic breakdowns are the direct result of a failed opportunity to diagnose and effectively treat underlying musculoskeletal injuries that are instead, masked by pain killing and or anti-inflammatory drugs which are used by trainers to accommodate uninterrupted training and racing schedules in unsound injured horses. This fact was revealed in the NY Task Force report in its analysis of fatalities at Aqueduct racetrack.

Would you say the majority of these are because too many unsound horses are running?

Yes. Unsound and or unfit horses can have their injuries masked under the current industry regulations which allow injury masking, anti-inflammatory and pain killing drugs to be stacked for several days leading up to race day. Necropsy findings have revealed that the majority of horses that suffer fatal breakdowns during racing and training have pre-existing injuries at the site that was responsible for their catastrophic and fatal breakdown. The New York Task Force found that in most of the fatalities they investigated there was a missed opportunity to prevent them but the use of drugs masked the injuries and enabled the horses to pass the prerace veterinary inspection and race despite their injuries and pre-existing musculoskeletal instabilities.

Do you think this proposed legislation is sufficient to address the problem?

Yes. I believe this legislation will provide the essential foundation upon which an effective, humane and fair anti-doping regulatory system can be built and enforced.

6. **In his five minute oral statement at the hearing, Mr. Hanrahan made a distinction between drugs that have no legitimate use in horse racing and therapeutic drugs, which he described as lawful therapeutic medications administered by licensed veterinarians.**

Do you agree with this distinction where doping is defined as pertaining to illegitimate drugs only?

No, not at all. The opponents of this legislations often mislead the public and authorities by officially deeming some drugs to be intrinsically therapeutic, but the fact is that no drug is in it of itself therapeutic as *it is the context in which a drug is administered that determines its fate as either effectively therapeutic, injury masking, or performance enhancing.*

For example, if a horse has acute tendinitis (a common overuse injury in racehorses), the nonsteroidal anti-inflammatory ("NSAID") and pain-killing drug phenylbutazone (also known as "bute") could be selected by the veterinarian to treat this condition in the appropriate setting of the horse being rested until the injured tissue has healed and strength has returned to the tissue. But if the horse is given this powerful pain-killing and anti-inflammatory drug and continues training and racing, the drug will act as an injury-masking agent, one that removes the signs of tissue damage before the tissue has healed. This exposes the horse and its rider to significant risk of catastrophic breakdown as the injured tissue cannot hold up under the strain of speed work or regular training exercise. In this example, a drug that our current regulators have deemed to be therapeutic is in fact, most often used as an injury masking doping agent.

This legislation insists upon the establishment of the veterinarian-client-patient relationship ("VCPR") when any drug is administered to racehorses. Using the example above, this would require that the patient be examined by the prescribing veterinarian, tests performed as needed, a diagnosis of the tendinitis made, and the drug would only be administered while the horse rested for as long as required to allow the injured tissue to heal. It would not be permissible for the trainer to elect to use the drug to simply enable the uninterrupted training and racing of this unfit and unsound animal. In keeping with the VCPR, the veterinarian *must prescribe the required rest* for the patient. If the trainer failed to adhere to this appropriate element of treatment, the veterinarians should report their concerns to the track's regulatory veterinarian who could put the horse on the track vets list which would prohibit it from training and racing until re-examination revealed it was safe to do so after the injury had healed.

7. **In his five minute oral statement at the hearing, Mr. Hanrahan also stated that Lasix and other therapeutic drugs are necessary and reduce injuries to horses and jockeys.**

Is this true?

No, in fact, the opposite is true. Therapeutic drugs are effective during the treatment and convalescent period to assist the healing process and to reduce pain to improve the comfort and welfare of the horse. Once the patient has recovered, no drugs are needed. Using drugs to try to cut corners and expedite the return of the horse to training and racing while injured not only exposes the horse and its rider to significant risk but it will most often lead to the compounding of a simple minor injury and lead to the need for surgery or the retirement of the seriously injured horse. The shortest route back to racehorse soundness and fitness in full training and racing is to give the animal the short period of rest required and therapies needed

to effect a full recovery. Using drugs to mask injuries is only expeditious in the short term. It leads to the diminished racing ability of the horse and often the loss of life. "Racehorse" is not a diagnosis and drugs can only be appropriately administered to treat diagnosed conditions.

Many trainers use a drop in racing class coupled with "legally" stacked injury masking drugs as a method of dealing with their injured horses. This legislation would prevent this oft used systematic abuse of drugs which enables this inhumane management of injured racehorses and leads to fatal breakdowns and permanent and crippling injuries.

8. **In his five minute oral statement at the hearing, Mr. Hanrahan stated that based upon the results of drug testing, there is no misuse of medication in horseracing.**

   Is this true?

   Absolutely not, this is a significant misrepresentation. Mr. Hanrahan characterized the majority of drug violations as minor overages of "therapeutic" medications, suggesting that these drugs were administered responsibly. In fact, the current allowances for many injury masking drug levels is so high that an overage violation represents the administration of drugs, often stacked, and in extremely high pain-killing doses. This common practice of stacking a variety of drugs at dosages allowed by our current regulations enables horsemen to keep their horses continuously doped so that they do not feel the pain of their compounding injuries.

9. **In his five minute oral statement at the hearing, Mr. Hanrahan stated that Lasix is not a PED. The Lasix South African study conclusively proved Lasix is effective prevention of bleeding in the lungs.**

   Do you agree?

   I do not agree that Lasix is an effective prevention for bleeding in the horses' lungs, and Lasix has been definitively established as a performance-enhancing drug ("PED"). The definitive scientific study, which collected data on *more than twenty-two thousand five hundred horses*, was published in the Journal of the American Veterinary Medical Association. The data revealed a significant performance enhancing effect as follows:

   RESULTS:
   Furosemide was administered to 16,761 (74.2%) horses. Horses that received furosemide raced faster, earned more money, and were more likely to win or finish in the top 3 positions than horses that did not. The magnitude of the effect of furosemide on estimated 6-furlong race time varied with sex, with the greatest effect in males. When comparing horses of the same sex, horses receiving furosemide had an estimated 6-furlong race time that ranged from 0.56 +/- 0.04 seconds (least-squares mean +/- SE) to 1.09 +/- 0.07 seconds less than that for horses not receiving furosemide, a difference equivalent to 3 to 5.5 lengths.

I included the summary of this paper in the appendix of my written testimony on page thirty-nine.

Horsemen fail to report the fact that many horses still experience pulmonary hemorrhage when they are treated with Lasix because if they do (as required by most state regulators), the horse will go on the track vet's list and be prohibited from racing for a period of time. It is only the reporting of the incidence of this condition that has diminished; therefore the true incidence of this condition is unknown. Also, very few horses are examined with an endoscope following speed work or racing when Lasix has been administered, which is the only way to know if a horse has evidence of pulmonary bleeding.

Are you familiar with this published study?

I am familiar with this study and in my opinion it was significantly flawed and its study design and data reporting. In fact, and contrary to the popularized myth that it evidenced the effectiveness of Lasix to prevent pulmonary hemorrhage, it did not show that the administration of Lasix was an effective preventative for pulmonary hemorrhage ("EIPH").

Weaknesses in this study design include, for example:

a) The study was strictly observational, relying on veterinarians' subjective grading of the presence and severity of bleeding;
b) It was a small sample size;
c) The study was conducted on only one small group of horses in one location (South Africa);
d) There were no selection criteria reported which may include intrinsic unsoundness of the racehorses included in the study, other drug therapy, racing fitness; rider ability; climate, or other factors well-known to influence the incidence of EIPH;
e) The horses that were studied only raced twice for the study which was intended to compare the incidence of EIPH- once with Lasix and once without Lasix. Examining horses on only one occasion with the drug and one occasion without the drug is a statistically weak foundation upon which scientifically valid conclusions are to be drawn.

Is this what the study's data revealed? Please elaborate on this.

This South African study revealed that when treated with Lasix, the majority of horses still bled and the average decrease in EIPH score was less than one-half a grade on the 0-4 grading scale used in the study. Therefore, this oft quoted published study not only demonstrated that *Lasix does not prevent EIPH*, but any possible association with a reduction in severity of EIPH was *so small that it would be of little or no significance to the majority of the treated horses.*

Another scientific study was recently conducted which, in fact, showed that horses treated with Lasix experienced *a higher incidence of pulmonary hemorrhage.* The results of this study revealed:

The proportion of horses that bled was significantly (P = 0.0320; FET) greater among furosemide-treated horses (71%; 10/14) than untreated horses (37%; 15/41).
This study's results demonstrated that there was a statistically significant difference in the post-race endoscopic findings of horses who had received Lasix and those who had not. ***The horses studied who had received the drug were found to have a higher incidence and severity of post-race bleeding (EIPH)than the horses who did not receive the drug, a result the investigator's statistical analysis determined to be beyond just chance.***

Since this study was publicly presented following the submission of my written testimony before the November 2013 hearing, I have included this scientific paper as an Appendix to my responses to the Subcommittee's questions.

10. Mr. Hanrahan states in his written testimony:

> **"However, the NHBPA draws a clear distinction between illegal doping and lawful therapeutic medication that has long been used in horse racing by licensed veterinarians to maintain the health of racing horses and to treat injuries when they occur. Therapeutic medication, like furosemide (commonly called "Lasix") that acts to prevent and mitigate pulmonary hemorrhaging ("bleeding in the lungs") during racing, is necessary to keep a horse healthy and reduce the risk of injury to horse and jockey. Lasix use is not doping, and no one can reasonably conclude otherwise. Its use is safe and has been routinely administered by veterinarians for the past 40 years in their treatment of horses."**

Do you agree with Mr. Hanrahan that in the current racing industry, medications administered by veterinarians are therapeutic and necessary to keep a horse healthy and to reduce the risk of injury?

No, I disagree. The definition of doping in sports is as follows:

> *Doping is manipulation by means of chemical substances or other medical methods to enhance the individual's sport performance.*

The study I referred to above (Question 9, Part One) which included the collection of performance data on more than 22,500 horses definitively revealed that Lasix has a significant performance enhancing effect in race horses. This meets the definition of doping. Veterinarians at racetracks most often administer and dispense drugs at the request of the trainers and contrary to any therapeutic context. These drugs are used to enable the uninterrupted training and racing of injured horses and to mask pain due to chronic injury, such as degenerative arthritis.

Horses race in jurisdictions outside of the United States without the use of drugs. These horses are healthier and suffer less than half of the fatalities than horses in the United States managed under our permissive drug regulations. When medications are needed in a valid therapeutic context to treat a diagnosed condition, the horse must be removed from training until it is sound and fit to commence training. It is not only unnecessary to use drugs to protect the horse and its rider from injury, but drugs used during training and racing do just the opposite, they increase the risk of injury and fatality to horse and rider..

Do you agree with Mr. Hanrahan's statement that Lasix use is safe?

No, I disagree. I have seen the deleterious effects of the use of this potent diuretic, Lasix, on numerous race horse patients over the past thirty years. Horses become dehydrated, lethargic, prone to colic, and horses treated with Lasix typically take longer to recover their well-being following racing and speed work training than untreated horses. The scientific literature is overwhelming in its evidence that Lasix use can have serious health consequences. The method of action for this dehydrating diuretic is to cause the rapid loss of vital electrolytes in the urine. These electrolytes are essential for tissue metabolism and musculoskeletal and cardiovascular function. Many cases of "sudden death" occur during racing and training and the cause is typically listed as undetermined even though many of these horses have been treated with Lasix. The depletion of electrolytes and whole body volume depletion and dehydration can cause heart failure. It is inexplicable that the horse racing industry has never conducted studies to determine the effects of Lasix on the well-being of the horse by studying laboratory findings and other scientific data. My own pilot study of the effect of Lasix on hematocrit revealed that there is a similar concentration of red blood cells (increased hematocrit) with Lasix administration as we see following administration of EPO, the known blood doping substance. There is abundant scientific literature which demonstrates that there is an increased risk of fracture in patients that receive Lasix. USADA and WADA ban the use of this potent diuretic in human athletes due to its proven ability to mask other drugs and for its performance enhancing potential.

11. **Mr. Hanrahan further states: "The NHBPA supports the continued use of Lasix on race day and the use before race day of other recognized therapeutic medications like phenylbutazone, an anti-inflammatory equivalent to aspirin used by humans."**

Do you agree with Mr. Hanrahan's statement that phenylbutazone is equivalent to aspirin used by humans?

No, I disagree strongly with this characterization of phenylbutazone. This drug is a powerful anti-inflammatory and pain killer in horses. It also causes stomach ulceration in the majority of horses that receive it regularly, as often occurs in racehorses. Phenylbutazone can mask signs of fracture, arthritis, laminitis, and many soft tissue injuries that may cause instability of a horse's limb. I have examined patients with fractures that were undetectable by

examination findings except radiography due to the pain masking and anti-inflammatory effects of this drug.

Do you agree with the NHBPA regarding its support of the continued use of Lasix and other recognized therapeutic medications?

No, I do not agree with the NHBPA's position to allow the use of drugs to train and race. The only humane, ethical, professionally responsible and safe drug rule is a ban on all drugs with any effect on race day. They are unnecessary in sound, fit horses and carry great potential to mask injury and enhance performance, as our current regulatory system allows and encourages, to enable unfit and unsound horses to train and race.

12. **Mr. Hanrahan further states: "Turning to H.R. 2012, the NHBPA opposes its enactment because the bill attempts to address a problem that in reality does not exist, and purports to do so by employing an organization, the United States Anti-Doping Agency ("USADA"), which has neither the experience nor the resources to carry out a legislatively assigned task of regulating medication in the horse racing industry."**

Do you agree with the NHBPA that this bill attempts to address a problem that does not exist?

I do not agree that this attempts to address a problem that does not exist. The New York Times reported that data revealed 24 horses die each week at racetracks in this country. The New York Task Force investigation concluded that the majority of fatalities were preventable, but drugs had masked the signs of injury and the horse was forced to race while injured, leading to their deaths. I would suggest that the number of horses that die every week at racetracks is actually much higher, but many horses are euthanized off the racetrack grounds or sent to slaughter once they suffer career ending injuries and these horses are not counted in these statistics. I have estimated that at least as many deaths go uncounted. *I find it unconscionable that anyone could say that this is not a problem.* It is in fact, a major health and safety crisis impacting not only our racehorses, but also their riders.

How can the national horseman's racing association membership (NHBPA) and its president opine that this bill attempts to address and problem that does not exist in the face of revelations like those I include in my response to question four, which shows how individual states do not have the resources needed to allow them to adopt stricter ant-doping regulations, even when they say that they wish they could?

This problem is real. This problem involves the predictable loss of life and serious injury of horses and riders. This problem allows cheaters to prosper while penalizing honest owners and trainers who play by the rules. This problem has led to the denigration of our racing industry and its reputation internationally for both our ethics and the value of our "product", the American bred racehorse. This bill will enable us to enact a solution to this all-too-real drug problem.

13. **On Page 3 of his written testimony Mr. Hanrahan states: "By regulation in every state therapeutic medications may be used in the days preceding a race, but not on race day, and have little or no likelihood of affecting performance. "No effect" threshold limits for therapeutics are set by state racing commissions so that on race day no horse is under the influence of any therapeutic medication, except for the race day use of Lasix."**

Do you agree that under the current racing regulations, no horse is under the influence of therapeutic medication?

No, I disagree with this statement by the NHBPA representative. The list of medications that are permitted by current industry regulations is long and allows for the stacking of multiple drugs, day after day, leading up to race day and these compounded stacked drugs can have extremely potent effects on race day without exceeding the current permissive limits for drug testing. This fact was clearly demonstrated in the well-publicized case of the horse Coronado Heights. This fatally injured horse received 17 injections over several days leading up to the race in which he suffered a fatal breakdown. His trainer reportedly commented that this was a typical drug protocol for horses under his care. Based upon my review of public documents, I am of the professional opinion that there is no doubt that this horse would not have passed the pre-race veterinary inspection without the effect of numerous injury masking drugs he received in advance of his fatal race. His injuries were known to the treating veterinarian and presumably his trainer, prior to the decisions they made to stack drugs which sufficiently masked the underlying injury, leading to his racing to his death while unsound.

14. **On Page 4 of his written testimony Mr. Hanrahan states: "Lasix prevents and lessens bleeding. It is safe and has been used effectively for nearly forty years. Its regulated use does not prevent the post-race detection of other drugs. Similarly, research demonstrates Lasix does not cause a loss of bone density in horses leading to breakdowns."**

Do you agree with this statement? Would you please comment on this statement?

I disagree with this statement. The science shows that Lasix does not prevent pulmonary hemorrhage in racehorses (see scientific paper in the Appendix to my responses). Lasix causes the artificially rapid excretion of other drug metabolites in the urine through its diuretic effect. No research studies have been carried out on horses to test whether or not Lasix causes loss of bone density. There is, however, abundant published science to indicate that the specific pattern of this drugs use in horses would lead to loss of bone density. There are hundreds of scientific publications in the human literature linking the use of this drug to bone loss and fracture. I am unaware of any study in horses that has been undertaken to specifically collect data in horses, despite my extensive and up to date review of veterinary publications.

15. **On Page 5 of his written testimony Mr. Hanrahan states: "In Britain Lasix is used in daily training to prevent or lessen pulmonary hemorrhaging, but not on race day. From**

a horse welfare standpoint that makes no sense. No one disputes that Lasix prevents injuries and fatalities in race horses and reduces risks for jockeys.

Would you please comment on this statement?

I have provided veterinary consulting services extensively in Great Britain and have found that very few horses use Lasix during training. It is not correct to state that no one disputes that Lasix prevents injuries and fatalities and reduces risks for jockeys. The science reveals the opposite to be true. The fact that no other racing jurisdiction allows the use of Lasix is evidence of the fact that the rest of the world does not take this flawed position of purported benefits of this drug.

16. **Mr. Hanrahan goes on to state: "Advocates for British racing also point to the lower fatality, or breakdown rate, of horses racing in Britain compared to our horse industry experience. They claim, without any empirical evidence, that our higher fatality rate is caused by permissive drug use in U.S. racing. But as we have shown there is very little difference in medication policy, race day Lasix aside."**

Would you agree with this statement?

No, this is false. I find that in British racing, when horses are unsound they are given time off and are fully evaluated to diagnose and treat injuries. Trainers often have rehabilitation yards (or stables/farms) where they continuously rotate their horses from their active training yards. Drugs are simply not used to enable the training of unfit and unsound horses. Veterinarians are consulted for the purpose of diagnosis and rehabilitation, not to be a source for drugs to mask injury and enhance performance. In international jurisdictions that prohibit drugs in racing, there is a sharp decline in the use of drugs during training.

17. **On Page 6 of his written testimony, Mr. Hanrahan states: "The AAEP warns what is likely to happen if Lasix is not permitted on race day:**

"The racing industry should anticipate that other methods will be employed to reduce the incidence of EIPH if a race-day ban on Lasix is instituted. The practice of withholding food and water from the horse in the days leading up to a race should be expected. As doctors of veterinary medicine we believe that the detriments of withholding food and water to the health and welfare of the horse outweigh the current concerns about race-day Lasix administration. The racing industry should also expect that unproven and perhaps undetectable products will be used in an attempt to alleviate EIPH on race day. Some of these products may include, but are not limited to, herbal remedies, nutraceuticals, and compounded medications that are not approved for use in the horse and have no scientific merit or efficacy in treating EIPH. The potential harmful side effects of these products to the horse are a serious concern."

Do you agree that a valid reason for allowing the use of one medication is to prevent the use of substances and practices that are more inhumane?

I not only disagree with this reasoning, I find it to be evidence that trainers and their veterinarians, under our currently permissive drug regulations, will reach for any means, humane or not, to seek an advantage to win races. The fact that the AAEP can be persuaded to advocate for the use of one medication despite its ineffectiveness and damaging side effects in order to avoid even *more harmful practices* from being used by both trainers and veterinarians is proof that horse racing (including its veterinarians) needs an independent regulator. It is unethical to promote the use of any drug for any reason other than its effectiveness in improving health in an individual patient. Veterinarians are clearly unable and unwilling to police themselves with regard to the appropriate use of drugs in horse racing and trainers will take any advantage to win that they may.

I would also respectfully remind the AAEP that animal cruelty must be reported to animal welfare and other authorities in accordance with most state and racing commission laws. This would include the practice of withholding food and water for prolonged periods as they describe could become a substitute if Lasix is banned.

> ***cruelty to animals*** *n. the crime of inflicting physical pain, suffering or death on an animal, usually a tame one, beyond necessity for normal discipline. It can include neglect that is so monstrous (withholding food and water) that the animal has suffered, died or been put in imminent danger of death.*

The remedy for this form of "monstrous neglect" is to report the abuse to authorities, not to be coerced into allowing the nontherapeutic use of any drug. The AAEP seems to be admitting to its complete failure to be an unbiased advocate for the health, welfare, and safety of the horse, while advocating instead for the racing industry and racetrack veterinary profession's status quo.

18. **During the hearing, Mr. Yarmuth (KY) questioned Mr. Hanrahan: Is there a justification for the use of Lasix on race day? Mr. Hanrahan answered: Lasix is effective in preventing bleeding in horses and therefore, protects the jockeys.**

    Do you agree?

    I do not agree. Lasix is ineffective in preventing bleeding in horses and its side effects can introduce risk to both the horse and its jockey.

    Would you please respond to Mr. Yarmuth's question as well as Mr. Hanrahan's response?

    There is no justification for the use of Lasix in race horses on race day or on any day except when a diuretic is needed to treat a serious and definitively diagnosed medical condition. This is the only legitimate therapeutic use for this drug in any species.

19. **During the hearing, I questioned Mr. Hanrahan about the horse Coronado Heights who received 17 injections, and I asked - how is that putting the horse first? How is this justified? Is this necessary? In his response, Mr. Hanrahan mentioned that he is not a**

vet, but he said that vets look at the horses and determine how the horse should be treated. Mr. Hanrahan also mentioned the NY Task force report's executive summary on Page four.

Do you agree with Mr. Hanrahan's response?

No, I do not agree with Mr. Hanrahan's response or his choice of excerpt from the New York Task Force report used to support his non-veterinary opinion regarding the use of a prescription drug. The citation on page four that Mr. Hanrahan referenced stated that the pre-race medication administered to the horses that suffered fatal breakdowns was similar to the medication administered to horses that did not break down. This does not suggest that the medication did not lead to the fatal injury, it simply suggests that the other horses did not have sufficiently unstable injuries at the time that would cause their fatal breakdown.

Unfortunately, veterinarians at the track very often do not examine a horse in order to develop a therapeutic plan for its recovery. Veterinarians are asked by trainers to treat horses with drugs that the trainer believes will help the horse to win a race and mask injury and too often, they oblige. The trainers are not the ones with the knowledge, education or license required to prescribe drugs but they are too often the ones deciding which drugs will be used, often including the dose. When I consult for a racing patient and inquire about drugs administered to the horse, my colleagues will often reply by telling me what "drug protocols that trainer likes to use", which they simply oblige, without examining the horse receiving these drugs. When I ask if they had ever diagnosed a particular injury that my examination reveals, often they will say "that trainer never asks me to look at the horses, just to administer the drugs". So Mr. Hanrahan's representation that veterinarians are examining horses to determine their medication needs is simply not correct in my experience nor does it reflect the findings of the NY Task Force report.

Have you reviewed the Task Force report that he mentioned?

Yes, I have reviewed this New York Task Force report. I also included it in my written testimony in the appendix in Section XI.

If yes, what did it find in the case of Coronado Height's fatal breakdown?

The revealing excerpts from the Task Force report regarding Coronado Heights are as follows:

> *This horse was routinely treated pre-race with two NSAIDs, as well as Legend® and Adequan®10. These latter two therapeutic medications are commonly used to protect the joints of horses. The concurrent administration of NSAIDs is controversial because of potentially harmful side effects.*
>
> *Conclusion: The trainer reported that there were a number of minor problems that kept this horse from racing until his 4-year-old year. However, because he sustained his injury early in the race, the Task Force believes this horse's*

musculoskeletal system was suspect prior to the race. The aggressive pre-race medication protocol in the days leading up to his final race may have masked clinical signs of lameness and confounded the pre-race examination. Based upon the information provided, The Task Force believes this medication practice may have represented a missed opportunity to prevent this injury.

Despite the fact that drug testing was not conducted in this horse following its fatal injury sustained during racing, and despite the fact that no necropsy was performed, it is clear that the stacking of NSAID medications (including phenylbutazone) and other pain killing and injury masking drugs enabled this horse, with pre-existing unsoundness and instability, to race. I agree with the Task Force conclusion that Coronado Heights could have been spared this fatal injury if the drugs had not masked the signs of lameness from the track vet during its pre-race examination. This horse could have been scratched from the race if it showed signs of the pre-existing unsoundness during the pre-race exam.

In my opinion, Coronado Heights is a perfect example of how drugs are commonly misused under the false public pretense of being therapeutic, when in fact they are intentionally used to mask injury and enable the racing of unsound horses.

20. Compounding pharmacies and so-called supplements:

What is your opinion regarding the availability and marketing of such products to race horse owners and trainers?

The marketing of such products to trainers plays into the falsehood that if the regulators are not currently testing for a substance or if they are unaware and have no regulation regarding a substance, anything is fair if it "tests clean". These products are marketed with the sales pitch that they enhance performance and or mask pain.

The NHBPA, while being represented by Mr. Hanrahan, has published advertisements in its journal for products that promise to deliver such performance enhancing effects in racehorses.

This legislation, by naming USADA as anti-doping regulator for horseracing, will benefit from their well-known investigations of such products and subsequent detection of the illicit performance enhancing substances they contain. These companies are often exempt from FDA regulation and there is no way for a consumer to know if the label accurately describes the product contents. Reportedly, the abuse in horse racing of the pain killing stimulant known as dermorphin was marketed in this way as a performance enhancing substance for racehorses that would "test clean" in horse racing.

Do you believe that they should they be banned?

Yes, I believe that any substance or practice used to alter physiology or function by artificial means should be banned. USADA has already confronted this avenue for cheating and I believe would be an effective regulator against cheating through the use of these products. In other racing jurisdictions, all substances outside of the standard hay, oats and water must be reported to regulators. I believe this is the best means for identifying which products are being used by horsemen. USADA could monitor all products used by horsemen nationwide to assure both safety and ethics in horse racing.

Recently it was discovered that high doses of Cobalt salts were being administered to racehorses. This substance has a similar effect as EPO but can cause serious harm to the horses, even death. By banning all such foreign substances, investigating their use and enforcing regulations we could keep the sport safe, ethical and rid the industry of cheaters and animal abusers.

<u>The Honorable Jan Schakowsky</u>

1. **A widely-cited investigation last year by *The New York Times* found that racehorses are dying at alarming rates – on average, 24 horses suffer fatal injuries every week at America's racetracks. When adjusted on a per capita basis, serious injuries and deaths are occurring far more frequently here than in other nations with longstanding racing traditions.**

   I think it is evident that meaningful changes need to happen – to protect the safety not only of the horses suffering breakdowns, but also their jockeys and the horses and jockeys around them. Many close observers of the horse racing industry have suggested that the best place to start, for reform, is on the improper or illegal use of drugs, which is understood to be widespread.

   a. **Do you believe that we would see fewer catastrophic failures, horse deaths and injuries to jockeys if we banned the administration of medications in the 24 hours prior to the race, like outlined in this bill?**

      Yes I believe we would see fewer catastrophic injuries and deaths if all medications were banned, as outlined in this bill, for twenty-four hours preceding racing.

   b. **Would you say that horses that race in the United States are more or less healthy than their counterparts in Europe and elsewhere? Do racehorses here suffer more catastrophic injuries than in other areas?**

      Based upon my experience as a veterinary clinician practicing in both the United States and in Europe and other major racing jurisdictions, I have observed that race horses in the United States develop more chronic injuries, more acute injuries, and more catastrophic career-ending and fatal injuries than their international counterparts.

I have also recognized a far greater turnover of racehorses due to catastrophic and career ending injuries in USA stables than in these international racing jurisdictions. Horses are viewed as disposable items by many owners and trainers. Horses in Europe are far more likely to be given time off at farms and rehabilitation centers so they can be freshened up and to allow recovery from the physical and mental wear-and-tear that results from the racing environment. Consequently, these horses tend to remain in racing for much longer careers and the trainers do not need the extremely high number of replacement horses as we see in the United States in order to maintain their businesses. In Europe, the owners hold their trainers to a higher standard and accountability to respect and preserve the health of each individual horse. In Europe, trainers are also banned from the sport for many years- often a decade or more, if they are caught doping horses and such sanctions provide a clear incentive to play by the rules.

c. Do you believe that the doping of horses, whether with painkillers, Lasix or worse, amounts to animal abuse? Why or why not?

There is no question that doping racehorses with any substance that masks injury, deadens or diminishes pain or sensation, or enhances performance is animal abuse. These drugs remove the animal's natural defense to avoid over-exertion of an injured or unfit body and substitutes the false sense of well-being which leads to injury or catastrophic breakdown. It is the intrinsic nature of the horse (as a prey species) to run, and the horse has developed the anatomy for speed that borders on the edge of instability, should that body be pushed beyond its natural limits.

Pushing the body beyond these natural limits is precisely what our permissible drug regulations enable and even encourage. The use of drugs is a means of exploiting this intrinsic running ability at great risk to the individual, or in the words of the legal definition of cruelty, puts the animal "in imminent danger of death". Racing statistics for fatalities demonstrate that we put numerous horses at risk of imminent death through the indiscriminant use of (legal) pain masking drugs (*see NY Task Force report*).

The legal definition of animal cruelty or abuse is as follows:

cruelty to animals *n. the crime of inflicting physical pain, suffering or death on an animal, usually a tame one, beyond necessity for normal discipline. It can include neglect that is so monstrous (withholding food and water) that the animal has suffered, died or been put in imminent danger of death.*

Another definition, used by law enforcement is as follows:

Cruelty to Animals. *The infliction of physical pain, suffering or death upon an animal, when not necessary for purposes of training or discipline or (in the case of death) to procure food or to release the animal from incurable suffering, but done wantonly, for mere sport, for the indulgence of a cruel and vindictive temper, or with reckless indifference to its pain.*

There is no doubt that trainers and veterinarians know that the way they often use drugs-in order to mask pain and enable horses to race and train faster than their injured bodies could without medication, causes irreparable and permanent harm and physical suffering (for mere sport), and puts the horse in imminent danger of death. This clearly meets the legal definition of animal cruelty. Horse racing in itself is not cruel or abusive. The abuse of drugs in horse racing is what makes it cruel and permissive drug regulations encourage participants to put the sport over ethics and the welfare of the animals.

d. What about the racing of yearlings or 2-year-old horses, which are not fully developed, or the too-frequent racing of horses of any age?

Very few 2-year old thoroughbred racehorses are sufficiently mature in their musculoskeletal development to be safe and able to race. Horses require not only boney maturation but muscular and mental maturity in order to race and train safely.

Some will misdirect your attention to scientific publications that report that horses that raced as two-year olds hold up better as three-year olds than their unraced counterparts. But in my opinion and based upon my experience in clinical practice, these studies failed to include a critically important statistic in their data analysis. Researchers failed to include the number of horses that break down fatally or suffer career ending injuries while being trained leading up to their first race. By not counting the number of horses that die of leave the sport too badly injured before their first start, the results are invalidated as a measure of effect of starting horses as yearlings and two year olds. These fatalities are never counted in the reported statistics. They are not even counted by the industry.

If the racing industry in the United States wishes to race two-year old horses, then I would propose a system for evaluating each individual under three years of age prior to allowing it entrance to the racetrack grounds. If the horse is determined upon testing to be sufficiently mature to race and train then such horses could be allowed to do so.

e. Do you believe that the designation of an independent anti-doping agency like USADA to oversee the horseracing industry's compliance on this topic would lead to better outcomes for the horses involved?

Yes, I believe that having an independent anti-doping regulator is key to essential drug reform that must be in place to lead to better health and safety outcomes for all racehorses, and their riders.

USADA is an agency that has the ability, professional resources, and record of excellence, experience and lack of bias to oversee anti-doping regulation of horse racing. USADA has the capability to carry out the multi-faceted specialized business of expert drug regulation. It has a proven record of success in its development of anti-doping policies, testing methodologies, investigations, prosecution and enforcement in numerous recognized sports.

We live in an age where anti-doping regulation and enforcement must keep pace with the fast-growing science and sophisticated mechanisms of cheating. It can no longer be accomplished by small local underfunded agencies. The horse racing industry is now a national sport for most participants. Gone are the days when horses remained in one state or track for their careers. It is only logical that anti-doping regulation must also be national in its policies, procedures, and administration. USADA satisfies these needs for successful uniform anti-doping policies and national regulation which will lead to better safety and welfare for the horses.

The racing industry finds itself unable to enact meaningful reforms, even in jurisdictions that favor them, one example of which I include in my response to the Honorable Joe Pitts' question number four (The Review of Mass State Racing Commission July 16, 2012 of the Massachusetts Gaming Commission). Only an outside agency such as USADA can effectively create and enforce effective anti-doping regulation for horse racing in the United States.

f. Doug O'Neill, a Kentucky Derby-winning trainer, has been cited for more than a dozen violations of horse doping, but is still active today.

Do you believe that the penalties present in H.R. 2012 would effectively prevent repeat offender situations like this?

Yes, this bill will require that trainers who commit multiple drug violations to be banned from the sport. This is the system used in Great Britain and other major international racing jurisdictions and it is the only reasonable and effective deterrent to cheating. The suspensions handed out in Great Britain effectively put a trainer completely out of business, for often a decade or more, and in so doing eliminate the cheaters from their industry once they are identified. This bill will do the same for the United States horse racing industry.

Our current system of ineffective and meaningless penalties for drug violations has fostered an environment that not only rewards the cheaters and animal abusers, but it discourages the ethical and honest horsemen from remaining in business. I know of several skilled and honest horsemen and women, both owners and trainers, who got out of the industry in the United States because they found that the cheaters prospered while honest horsemen could not compete. This bill will reward the hard working honest individuals and promises to rid the sport of those who would cheat to steal from others while bolstering their image as successful trainers when in fact, they are no more than the highly skilled cheaters. This bill's requirement of effective enforcement through mandatory penalties is essential for the kind of reform that is needed to restore our horseracing industry as the vibrant international leader it once was.

2. Reports of trainers giving their horses illicit substances like cocaine, cobra venom, or dermorphin are troubling, and have gotten substantial coverage in the media. But according to close observers of horse racing, there exists substantial abuse of legal

drugs – particularly anti-inflammatory painkillers – that are used for non-therapeutic reasons.

a. Please discuss the use of pain medication on racehorses. In particular, I would like to understand: (1) the way that these medications may mask injuries the horse has already suffered, and (2) the possibility that these medications may mask other, more insidious drugs that are forbidden.

Pain medication can take several drug classification forms:

a) NSAIDs

The most common type of pain medication used in racehorses is the non-steroidal anti-inflammatory medications ("NSAIDS"). This class of drug is anti-inflammatory and pain killing, and includes drugs such as phenylbutazone; flunixin meglumine (Banamine); ketoprofen (Ketofen); etodolac (Etogesic); COX-2 inhibitors such as firocoxib (Equioxx); diclofenac sodium (Surpas, which is a topical NSAID). Phenylbutazone and Banamine are the most commonly used and abused medications in racehorses. They act as powerful anti-inflammatory and pain masking drugs that can cause lethal side effects with prolonged therapy and yet trainers and racetrack practicing veterinarians often use these drugs without regard for the inherent health and safety risks.

b) Corticosteroids

Corticosteroids are potent anti-inflammatory and pain-relieving agents. When used appropriately in a patient that is managed responsibly throughout the duration of corticosteroid therapy, they can be beneficial to healing. Too often corticosteroids are stacked in conjunction with multiple NSAIDs to mask the signs of injury which studies have shown leads to increased catastrophic breakdown in racehorses. This stacking can be used while keeping within the dosing limits permitted by racing's current "therapeutic" drug regulations, but used in this way, these drugs are anti-therapeutic. The pain masking effect can enable a seriously injured horse to race and train as if uninjured.

c) Opiates

Opiate medications act on the central nervous system to decrease the perception of pain. In horses, opiate medications also act as central nervous system stimulants, which leads to their performance enhancing doping abuse potential. Common drugs include morphine, apomorphine, methadone, oxymorphone, butorphanol, fentanyl, and buprenorphine.

d) Local anesthetics

These medications are commonly used as nerve blocks to block the perception of pain in the area where it is injected. Lidocaine, mepivacaine, bupivacaine, and ropivacaine are common local anesthetics. Cobra or snake venom, and sarapin also act to block pain signals when injected around peripheral nerves. Cobra venom has been used widely to block the horses' nerves in its feet, and in or around joints, or along the length of its back so that pain cannot be felt by the animal and it will race despite its injuries.

e) Other drugs

One example of another drug reported to be abused by trainers is Prialt or ziconitide which is an extremely powerful non-narcotic pain reliever that works by blocking pain signals from the nerves to the brain. This drug is used only in human medicine for extreme and continuous pain that is unresponsive to any other drug or therapy. It can be injected directly into the spinal cord fluid.

Pain and inflammation are natural and important indicators of injury. Responsible veterinary practice and the veterinarian-client-patient relationship ("VCPR"), which is referenced repeatedly in this bill, precludes the use of any such drug or their combination in any racehorse to accommodate racing and training of unfit unsound animals. The current drug regulations allow for the recklessly dangerous stacking of multiple drugs in such a way that both chronic and acute injuries can be masked.

The case of Coronado Heights illustrates a typical example of the abuse of these medications. While numerous studies have indicated that using more than one NSAID concurrently puts the horse at greater risk of developing complications or toxicity, this is a practice commonly employed today and one that is considered acceptable by our current racing regulations. Administering an NSAID and a steroid at the same time can be extremely dangerous to health and safety. Corticosteroids like dexamethasone, methylprednisolone and betamethasone are much more long lasting in effect than NSAIDs and the two should not be used in conjunction with one another. And yet this is a standard protocol for many trainers in their drug regimens applied to the majority of their horses.

Often trainers will have their veterinarians inject corticosteroids directly into the horses' acutely or chronically injured, inflamed and painful joint while simultaneously administering NSAIDs systemically. Horses treated in this way have no chance to recover if they continue to race and train, as they most often do. Eventually, the damage is too great and the horse either suffers a fatal breakdown or they otherwise disappear from the sport, unable to recover a degree of soundness that would enable their use as riding horses. These permanently damaged horses often go to slaughter when the accumulated effects of the drugs permanently cripples them.

This practice of stacking legal drugs is allowed by our current racing regulations.

A known side effect of NSAID medications, especially phenylbutazone, is gastrointestinal ulceration. This illness is so prevalent in race horses that the drug used to treat the condition (Gastroguard) is allowed to be administered close to racing, and many racehorses receive it daily. The appropriate management under the VCPR (as required by this legislation) would be to administer it only when needed during brief periods of treatment with NSAIDs, while the horse is rested as it recovers from the injury for which the NSAID was prescribed. Currently horses are treated nearly continuously with NSAIDs and corticosteroids and simultaneously with ulcer treatment medications.

b. What would you say to individuals who equate same-day medicating of horses with athletes who take an aspirin to treat a sore muscle? Is this an appropriate comparison?

No, I disagree with this common but misguided comparison. First, the horse cannot tell us where it hurts; exactly when or how the pain developed; the nature of the pain; nor can we know how pain tolerant any individual horse may be. For example, two racehorses with the same fracture may present with entirely different levels of local pain upon examination and lameness evaluation. In my clinical practice I have examined horses with incomplete fractures of long bones that had barely discernable signs of lameness or pain upon examination. Therefore, using drugs under the presumption that if a horse shows minor soreness, it must have a minor problem can be a dangerous and life threatening mistake for that animal and its rider.

When horses suffer fatal catastrophic breakdowns during training or racing, trainers will often report that the horse was "just a little bit sore" but "showed no signs of significant injury" and had only received a standard dose of phenylbutazone or other commonly misused NSAID medication. They erroneously attribute these breakdowns to the horse having "taken a bad step" when in fact, most had pre-existing injuries and often incomplete fractures at the site of injury. The failure of the industry to conduct necropsies on all fatalities and take full histories of medications used in these horses perpetuates the myth that these medications are harmless and comparable to humans taking dose of aspirin.

As prey animals, horses have developed the tendency to not reveal outward signs of injury as this predisposes them to greater risk of predation in the wild.

The inherent risk in the sport of horseracing (40mph in close quarters with a field of horses on track surfaces that are often imperfect) is too great to take chances and make presumptions that *any level of unsoundness* is reasonable and ethical to dismiss and medicate away. Any level of unsoundness whatsoever should lead to the horse being taken out of training until veterinary examination yields a diagnosis, the unsoundness resolves following rest and appropriate therapies, and the horse is determined to be sound without the influence of any medication.

Another reason this is not a valid comparison is that while the individual anti-inflammatory and pain masking drugs may only be allowed in limited doses individually,

these drugs are typically stacked for days at a time and the compound effect is great. So a trainer will often report that his horse was only given a moderate dose of a common NSAID drug when in fact, many horses are given so many different drugs so frequently that they are rarely medication free.

I once examined a horse at the track and in my history taking the trainer reported that the horse was "only getting two grams of bute". I asked how the horse was when he was not on medication and the trainer said "I wouldn't know". I asked how long he had been medicated with phenylbutazone and he said that he had received this dose every day since the trainer had him, which was approximately two months. He then related a list of other medications that mask pain that the horse also received periodically. This is commonplace in our industry and it is in keeping with drug use allowances consistent with current regulatory guidelines. When I provide expert veterinary consulting services for horses that have been managed this way I have had to send them to farms and wait as long as 60 to 90 days before all the drugs clear the horses system so that I can conduct an examination without the pain and injury masking influence of these common legal medications and practices.

c. Do you believe that there are any circumstances in which horses should be allowed medication in the 24 hours prior to racing?

No. The only reason to administer medication is to treat illness or injury. Any horse that needs medication 24 hours prior to racing is not sound enough to race.

d. Please discuss the role of veterinarians at the racetrack.

Do you believe that the blanket ban on medication within 24 hours of racing would help veterinarians fulfill their duty as part of the veterinarian-client-patient relationship you refcrenced in your testimony?

Yes, I believe a ban on medication within 24 hours of racing would help veterinarians to abide by the standards of licensed veterinary practice and in keeping with the veterinarian-client-patient relationship ("VCPR"). The only reason a veterinarian would be inclined to administer medication to a horse during this immediate pre-race period would be to achieve an enhancement of performance or to mask underlying injury to enable the racing of unsound horses. This is against the standards of licensed veterinary practice, the veterinarian's oath, and the VCPR. By prohibiting this practice, the veterinarian's ethical standards would be upheld. This legislation would help the veterinarian to deny the trainer's request for this unethical assistance.

This bill would empower veterinarians to regain their authority as the sole licensed medication prescribers and enable them to fulfill their responsibility to protect the health and safety of the horses.

Are there conflicts of interests for veterinarians that you believe could be eliminated?

Yes. The veterinarian's role at the racetrack has been largely reduced to one of delivering drugs that are requested by trainers in order to keep unsound horses in training and to improve the chance of winning races through performance enhancement. Too often they comply in order to keep the business of that trainer. In our current system which encourages this misuse of drugs, veterinarians are rarely asked to examine horses and offer expert advice, as they do in Europe and in other major racing jurisdictions. Track practicing veterinarians typically only charge for the drugs they administer, as opposed to fees for professional services such as physical examinations and offering expert opinions. In our current system, the more drugs veterinarians administer, the more they are paid.

By upholding the VCPR, as this bill requires for all veterinary services, prior to administering any medication veterinarians will be required to: take a history; examine the patient; make a diagnosis; prescribe medication only if it is justified as the best treatment to restore health; prescribe management which may include rest during recovery from injury; develop a prognosis, re-examine the patient to determine the success or failure of treatments and to ascertain that the animal is fit to resume training and racing, while keeping a record documenting these services for every patient. In other words, this bill will insist that veterinarians resume their role as the professionals who protect the horses' health, welfare and safety. By contrast, without this legislation, I see no opportunity for veterinarians to regain the professional authority they relinquished in this industry over the use of prescription drugs in racehorses. This bill will make it much easier for them to remodel their business structure to one that charges fees for physical examinations and diagnostic, rehabilitation, or wellness sports medicine services. This will not only improve life for the horses but it will restore honor, trust and ethics to the veterinary profession.

3. **Furosemide, commercially known as Lasix, is a medication commonly used in horses to prevent exercise-induced pulmonary hemorrhage – or, plainly, to keep their lungs from bleeding from overexertion. But I understand it is a diuretic and has side effects that may improve race performance.**

   a. **Do you believe Lasix is used as a performance enhancing drug in the horseracing industry?**

   I have no doubt that Lasix is a performance enhancing drug in racehorses. The definitive study analyzed more than 22,500 horses' racing performance and the data led to this conclusion. (I have included a summary of this scientific paper in the Appendix to my written testimony on Page 39)

   My experience has been that when advising owners and trainers to *not use* this drug, they express concerns that they will not be able to win without it because all the other horses in the race will be under its performance enhancing influence. At first, in order to be

permitted to use Lasix, a horse had to be observed to be a bleeder. Many trainers would squirt blood up their horses' nostrils and declare that they had bled, even when they hadn't. Trainers did this because they felt the horses on the drug had the performance enhancing benefit and they understandably wanted it for all of their horses.

b. Please indicate whether or not administering Lasix is the best medical course of action for the recovery of a horse with exercise-induced pulmonary hemorrhage, and whether or not it benefits the health of a horse in the long term.

Lasix is not an effective drug to prevent, reduce, or treat pulmonary hemorrhage in the horse. Lasix is a powerful diuretic that works by causing excessive loss of vital electrolytes through the urine. It dehydrates the animal and numerous studies have linked Lasix use with loss of bone density and increased risk of fracture. These untoward side effects make the use of this drug unjustifiable as a presumptive treatment for pulmonary hemorrhage.

The most recent study published on this subject of Lasix use concluded that horses that received the drug were more likely to bleed than those that had not been treated with Lasix. I have included a copy of this paper as an Appendix to my responses because this paper was published after I had submitted my written testimony in November 2013.

c. Please compare the way that other nations with significant horse racing traditions treat Lasix and other drugs in their racehorses?

Race day drugs are banned in all major international racing jurisdictions. Most major racing jurisdictions ban the use of any drug for several days prior to racing, including Lasix. Many racing jurisdictions require the reporting of all drugs administered to horses while in training, even if they are administered well in advance of race day.

Do they allow same-day dosing of some medications?

No, other major racing jurisdictions ban race day drugs.

Do they allow Lasix use at all?

Some horsemen (most often horsemen or veterinarians with ties to US racing) occasionally administer Lasix, for speed-work training. It has been misreported that the use of Lasix during training is commonplace, but this is not the case. Lasix is not allowed to be administered within ten days of racing in most international jurisdictions.

Appendix

1) Final Report of Furosemide Treated vs Untreated Horses 12.11.13
The Breeder's Cup Lasix Study Report by Hagyard Equine Medical Institute

HAGYARD
Equine Medical Institute

Hagyard-Davidson-McGee Since 1876

Hagyard-Davidson-McGee Associates, PLLC

4250 Iron Works Pike
Lexington, Kentucky
40511-8412
e-mail: info@hagyard.com
www.hagyard.com

Phone (859) 255-8741
Fax (859) 253-0196
Medicine (859) 253-0002
Surgery (859) 233-0026
Laboratory (859) 259-3685

Study Coordinator/Principal Investigator: Nathan Slovis DVM, Dipl. ACVIM, CHT (Hagyard Equine Medical Institute)

Endoscopist/ Data Collection:

- **Mike Spirito DMV (Hagyard Equine Medical Institute)**
- **Barry David DVM, Dipl. ACVIM (Hagyard Equine Medical Institute)**

Data Analyst: Noah Cohen VMD, MPH, PhD, Dipl. ACVIM (Texas A & M)

TEXAS A&M
VETERINARY MEDICINE
& BIOMEDICAL SCIENCES

I. BC Lasix Study Report

A. Data

1. Name of file is BC

2. Data are identifier-coded, confidential data from 78 horses, and were provided by Nathan Slovis electronically in a spreadsheet which I edited prior to calling data into S-PLUS statistical software for analysis.

3. Encountered problems with format of race-time data, and communicated with Nathan the need to re-enter these data as seconds, etc., IF they are important for analysis.

4. Created variables (Refer to images page 13)
   a. Bled = 0 if EIPH score was 0; and 1 if EIPH score was > 0
   b. More2= 0 if EIPH score was 0, 1, or 2; and 1 if EIPH score was 3 or 4

5. Significantly = Statistically Significant

Hagyard-Davidson-McGee Associates, PLLC
4250 Iron Works Pike
Lexington, Kentucky
40511-8412
e-mail: info@hagyard.com
www.hagyard.com
Phone (859) 255-8741
Fax (859) 253-0196
Medicine (859) 253-0002
Surgery (859) 233-0026
Laboratory (859) 259-3685

B. Analysis

Data were analyzed using both descriptive and inferential statistical methods. For descriptive purposes, continuous and ordinal data were summarized as medians and ranges, and categorical data were summarized using contingency tables. Inferential statistical analyses were limited by 2 considerations: 1) small sample size; and, 2) complete separation between association of furosemide use and status of whether horses were in BC races or not (i.e., no BC horses received furosemide). Categorical data were compared using chi-squared or Fisher's exact tests, as appropriate; continuous or ordinal data were compared using Wilcoxon rank-sum testing. A significance level of $P < 0.05$ was used for analyses which were performed using S-PLUS statistical software (Insightful, Inc.; Seattle, WA).

C. Executive Summary

Rationale and limitations - Use of furosemide has been demonstrated in a randomized, controlled clinical trial in South Africa to have reduced the severity of tracheal hemorrhage among Thoroughbred racehorses. It is my understanding that the purpose of this study was to determine the impact of prohibiting furosemide administration among 2-year-old (juvenile) Thoroughbred racehorses competing in Breeders' Cup (BC) races. The best study design to address this question would have been some type of randomized, controlled clinical trial. Such a study design, however, was likely infeasible for many reasons. Consequently, an observational study was conducted to compare the severity of EIPH among juvenile horses running in BC races or stakes races at the same racetrack on the same day. This design had 3 important limitations. First and foremost was the problem that because none of the horses in BC races were treated with furosemide, it is impossible to examine the effects of furosemide adjusted for effects of whether the horses were BC horses or non-BC horses. This problem impacted data analysis (by precluding stratification or multivariable modeling) and precluded assessing or controlling bias from selection and confounding. Second, the size of the study population was small: only 78 horses were included, of which only 55 had EIPH scores recorded. Third, the endoscopists were not blinded to the BC-status of the horses, which meant they knew those horses had not been treated with furosemide. This could have introduced either a conscious or unconscious bias in scoring that could have influenced study results. These 3 limitations make it necessary to interpret results of this study with care and caution.

Results – Horses that were administered furosemide were more likely to have EIPH and to have EIPH grades 2 or higher

Conclusions – There is no evidence that EIPH was more severe in juvenile horses that were not treated with furosemide. The furosemide treated horses had statistically higher frequency and severity of EIPH.
These results however must be interpreted within the limitations of the study. The sample size was small and the horses uniquely selected. Nevertheless, results of the analysis failed to identify evidence that EIPH was more severe among horses that did not receive furosemide.

HAGYARD
Equine Medical Institute

Hagyard-Davidson-McGee Since 1876

Hagyard-Davidson-McGee Associates, PLLC

4250 Iron Works Pike
Lexington, Kentucky
40511-8412
e-mail: info@hagyard.com
www.hagyard.com

Phone (859) 255-8741
Fax (859) 253-0196
Medicine (859) 253-0002
Surgery (859) 233-0026
Laboratory (859) 259-3685

D. Results

1. Comparison of furosemide-treated horses with untreated horses

a. BC races: The proportion of horses that received furosemide was significantly ($P < 0.0001$; chi-squared test [CST]) greater for horses in non-BC races (68%; 19/28) than for horses in BC races (0%; 0/50).

b. EIPH:

i. Scores: EIPH scores were recorded for 55 (70%) of the 78 horses: scores were not recorded for 18 of 59 (30%) horses not treated with furosemide and 5 of 19 (26%) of horses treated with furosemide; there was no significant ($P = 0.8818$; CST) difference in the proportion of horses with missing EIPH scores between the furosemide-treated and untreated groups.

The EIPH scores were significantly ($P = 0.0076$; Wilcoxon rank-sum test [WRST]) greater for horses treated with furosemide (median score, 1.5; range, 0 to 4) than for horses that were not treated for EIPH (median score, 0; range, 0 to 4). Considering scores as categorical data, the distribution of scores differed significantly ($P = 0.0363$; Fisher's exact test [FET]) between furosemide-treated horses and horses not treated with furosemide (Table 1): the furosemide-treated horses had proportionally more horses with higher scores.

Table 1. Distribution of EIPH scores among horses

Furo-semide	EIPH Score 0	1	2	3	4	Total
No	26 (63%)	9 (22%)	3 (7%)	2 (5%)	1 (2%)	41 (100%)
Y	4 (29%)	3 (21%)	2 (14%)	4 (29%)	1 (7%)	14 (100%)
Total	30	12	5	6	2	55

ii. Whether EIPH occurred: EIPH scores were recoded to indicate whether horses had bled (i.e., score > 0). The proportion of horses that bled was significantly ($P = 0.0320$; FET) greater among furosemide-treated horses (71%; 10/14) than untreated horses (37%; 15/41). When comparison was restricted to just the non-BC horses, although the proportion of furosemide treated horses that

HAGYARD
Equine Medical Institute

Hagyard-Davidson-McGee Since 1876

Hagyard-Davidson-McGee Associates, PLLC

4250 Iron Works Pike
Lexington, Kentucky
40511-8412
e-mail: info@hagyard.com
www.hagyard.com

Phone (859) 255-6741
Fax (859) 253-0196
Medicine (859) 253-0002
Surgery (859) 233-0026
Laboratory (859) 259-3685

bled (71%; 10/14) was greater than that of non-treated horses (43%; 3/7), this difference was not significant (P = 0.3458; FET).

The proportion of BC horses (none of which received furosemide) that bled (35%; 12/34) was similar to that of non-BC horses that were not treated with furosemide (43%; 3/7), and the difference was not significant (P = 0.6928; FET).

iii. Whether EIPH score was > 2: Per Dr. Slovis's recommendation, a variable was created dichotomizing EIPH as absent or negligible (scores of 0, 1, or 2) or more apparent (scores of 3 and 4). The proportion of horses with scores > 2 was significantly (P = 0.0197; FET) greater among furosemide-treated horses (36%; 5/14) than among untreated horses (7%; 3/41). However, when comparison was restricted to just the non-BC horses, the proportion of furosemide treated horses that had scores > 2 (36%; 5/14) was not significantly (P = 1.0000; FET) greater than that of non-treated horses (29%; 2/7).

Although the proportion of BC horses with EIPH score > 2 (3%; 1/34) was less than that of non-BC horses that were not treated with furosemide (29%; 2/7), this difference was not significant (P = 0.0703; FET).

iv. Time to be scoped: The time from race-end to scoping was recorded for 27 of the 41 horses that did not receive furosemide that were scoped and all 14 horses that received furosemide and were scoped. The distribution of times did not differ significantly (P = 0.2861; WRST) between the 27 horses that did not receive furosemide (median, 44 minutes; range, 28 to 116 minutes) than for furosemide-treated horses (median, 56 minutes; range, 31 to 327 minutes).

v. Location of bleeding: None of the horses was observed to have hemorrhage from the nares. The proportion of horses that had hemorrhage observed in the nasopharynx was significantly (P = 0.0467; FET) greater among horses that received furosemide (21%; 3/14) than for untreated horses (2%; 1/41). The 3 treated horses had scores of 1 in the nasopharynx whereas the 1 untreated horse had a score of 2 for nasopharyngeal bleeding.

The distribution of EIPH scores for the proximal trachea differed significantly (P = 0.0102; FET) between furosemide-treated and untreated groups (Table 2): the furosemide-treated horses were proportionally skewed to higher scores. Considering whether or not hemorrhage was observed in the proximal trachea, although the proportion of horses with bleeding observed was greater for the furosemide-treated horses (57%; 8/14) than for the untreated horses (30%; 12/41), this difference was not significant (P = 0.1211; CST). However, the proportion of furosemide-treated horses that had EIPH score of > 1 in the proximal trachea (50%; 7/14) was significantly (P = 0.0032; FET) greater than that of the untreated group (10%; 4/41). Finally, when considering whether horses had scores >2 for proximal tracheal bleeding, although the proportion was higher for the furosemide-treated group (14%; 2/14) than for the untreated group (5%; 2/41), this difference was not significant (P = 0.2655; FET).

HAGYARD
Equine Medical Institute

Hagyard-Davidson-McGee Since 1876

Hagyard-Davidson-McGee Associates, PLLC

4250 Iron Works Pike
Lexington, Kentucky
40511-8412
e-mail: info@hagyard.com
www.hagyard.com

Phone (859) 255-8741
Fax (859) 253-0196
Medicine (859) 253-0002
Surgery (859) 233-0026
Laboratory (859) 259-3685

Table 2. EIPH scores in the proximal trachea by furosemide (Lasix) treatment; N = no furosemide; Y = furosemide administered.

Lasix	Proximal tracheal EIPH score				
	0	1	2	3	Total
N	29 (70%)	8 (20%)	2 (5%)	2 (5%)	41 (100%)
Y	6 (43%)	1 (7%)	5 (36%)	2 (14%)	14 (100%)
Total	35	9	7	4	55

The distribution of EIPH scores for the distal trachea did not differ significantly (P = 0.0958; FET) between furosemide-treated and untreated groups (Table 3), although the furosemide-treated horses were proportionally skewed to higher scores. Considering whether or not hemorrhage was observed in the distal trachea, although the proportion of horses with bleeding observed was greater for the furosemide-treated horses (57%; 8/14) than for the untreated horses (32%; 13/41), this difference was not significant (P = 0.1172; FET). Considering just the proportion of horses with scores > 1, the proportion of furosemide-treated horses that had EIPH score of > 1 in the distal trachea (43%; 6/14) was not significantly (P = 0.0554; CST) greater than that of the untreated group (14%; 6/41). Finally, when considering whether horses had scores >2 for distal tracheal bleeding, the furosemide-treated group was significantly (P = 0.0197; FET) more likely to have horses with scores > 3 (36%; 5/14) than the untreated group (7%; 3/41).

HAGYARD
Equine Medical Institute

Hagyard-Davidson-McGee Since 1876

Hagyard-Davidson-McGee Associates, PLLC

4250 Iron Works Pike
Lexington, Kentucky
40511-8412
e-mail: info@hagyard.com
www.hagyard.com

Phone (859) 255-6741
Fax (859) 253-0196
Medicine (859) 253-0002
Surgery (859) 233-0026
Laboratory (859) 259-3685

Table 3. EIPH scores in the distal trachea by furosemide (Lasix) treatment; N = no furosemide; Y = furosemide administered.

Lasix	Distal tracheal EIPH scores					
	0	1	2	3	4	Total
N	28 (68%)	7 (17%)	3 (7%)	2 (5%)	1 (2%)	41 (100%)
Y	6 (43%)	2 (14%)	1 (7%)	4 (29%)	1 (7%)	14 (100%)
Total	34	9	4	6	2	55

vi. Endoscopist: There was no significant (P = 0.3112) difference in the distribution of endoscopists between the furosemide-treated and untreated groups (Table 4). Although the proportion of "own veterinarian" endoscopists was higher for the untreated horses (20%; 8/41) than furosemide-treated horses (0%; 0/14), this difference was not significant (P = 0.0981; FET). Seven of the 8 (88%) own veterinarians were for BC horses.

Table 4. Endoscopist by furosemide (Lasix) treatment; N = no furosemide; Y = furosemide administered.

Lasix	Endoscopist				
	JBD	MS	NS	Own	Total
N	11	12	10	8	41
	0.27	0.29	0.24	0.2	0.75
Y	5	4	5	0	14
	0.36	0.29	0.36	0	0.25
Total	16	16	15	8	55

The distribution of EIPH scores by endoscopist did not differ significantly (Table 5; P = 0.9504; FET). Similarly, the proportion of horses that bled (had scores > 0) did not differ significantly among vets (P = 0.8018; FET): JBD = 56% (9/16); MS = 44% (7/16); NS = 40% (6/15); Own = 38% (3/8). Similarly, the proportion that had EIPH scores > 2 did not differ significantly among endoscopists (P = 1.0000; FET): JBD = 12% (2/16); MS = 18% (3/16); NS = 13% (2/15); and own = 12% (1/8).

HAGYARD
Equine Medical Institute

Hagyard-Davidson-McGee Since 1876

Hagyard-Davidson-McGee Associates, PLLC

4250 Iron Works Pike
Lexington, Kentucky
40511-8412
e-mail: info@hagyard.com
www.hagyard.com

Phone (859) 255-8741
Fax (859) 253-0196
Medicine (859) 253-0002
Surgery (859) 233-0026
Laboratory (859) 259-3685

Table 5. EIPH scores by endoscopist

Endoscopist	EIPH score 0	1	2	3	4	Total
JBD	7 (44%)	6 (38%)	1 (6%)	1 (6%)	1 (6%)	16 (100%)
MS	9 (56%)	2 (12%)	2 (12%)	2 (12%)	1 (6%)	16 (100%)
NS	9 (60%)	3 (20%)	1 (7%)	2 (13%)	0 (0%)	15 (100%)
Own	5 (62%)	1 (12%)	1 (12%)	1 (12%)	0 (0%)	8 (100%)
Total	30	12	5	6	2	55

c. Sex: The 78 horses included 37 fillies, 36 colts, 3 geldings, and 2 ridgelings. Sex was recoded as male (colts, geldings, and ridgelings) or female. The proportion of females was not significantly (P = 0.7969; CST) different between furosemide-treated horses (53%; 10/19) and untreated horses (46%; 27/59).

d. Race class: The 19 furosemide-treated horses ran in ungraded stakes races (Golden State Juvenile and Golden State Juvenile Fillies; Table 6). The 9 non-BC horses that were not treated with furosemide ran in the ungraded Juvenile Turf Sprint. The 50 BC horses ran in a juvenile stakes race (N = 13), juvenile fillies race (N = 10), juveniles on the turf (N = 14), and juvenile fillies on the turf (N = 13).

The proportion of horses that raced in a Grade I stakes race was significantly (P < 0.0001; CST) greater among horses not treated with furosemide (85%; 50/59) than among horses treated with furosemide (0%; 0/19). This is because all 50 BC horses ran in Grade I stakes, whereas the 19 non-BC horses ran in stakes races that were not graded.

HAGYARD
Equine Medical Institute

Hagyard-Davidson-McGee Since 1876

Hagyard-Davidson-McGee Associates, PLLC

4250 Iron Works Pike
Lexington, Kentucky
40511-8412
e-mail: info@hagyard.com
www.hagyard.com

Phone (859) 255-8741
Fax (859) 253-0196
Medicine (859) 253-0002
Surgery (859) 233-0026
Laboratory (859) 259-3685

Table 6. Class of race by furosemide (Lasix) treatment; N = no furosemide; Y = furosemide administered.

Lasix	Race							
	BCJuvnl	BCJvnFl	BCJvFlT	BCJvnTr	GSJuvnl	GSJvnFl	JvnTrSt	Total
N	13 (22%)	10 (17%)	14 (24%)	13 (22%)	0 (0%)	0 (0%)	9 (15%)	59 (100%)
Y	0 (0%)	0 (0%)	0 (0%)	0 (0%)	9 (47%)	10 (53%)	0 (0%)	19 (100%)
Total	13	10	14	13	9	10	9	78

e. Race distance: The race distances were 6.5 furlongs (N = 9), 8 furlongs (N = 46 horses), and 8.5 furlongs (N = 23 horses). For purposes of analysis, race distance was recoded as < 8 furlongs or $\geq$ 8 furlongs. The proportion of horses that ran in races $\geq$ 8 furlongs was not significantly (P = 0.1033; CST) greater for furosemide-treated horses (100%; 19/19) than for untreated horses (85%; 50/59). The 50 horses that ran in races $\geq$ 8 furlongs were all BC horses.

f. Weather and track conditions: The weather conditions were clear for all races (and thus all horses). The track conditions were described either as fast (N = 42 horses) or firm (N = 36). The proportion of furosemide-treated horses racing in firm conditions (0%; 0/19) was significantly (P < 0.0001; FET) lower than that of untreated horses (61%; 36/59). Of the 28 non-BC horses, all 19 furosemide-treated horses ran on fast tracks whereas all 9 untreated horses raced on firm tracks. Among BC horses, 54% (27/50) raced on firm tracks. Among untreated horses, the proportion of BC horses that raced on firm tracks (54%; 27/50) was significantly (P = 0.0090; FET) less than that of non-BC horses (100%; 9/9).

g. Turf versus dirt: The proportion of furosemide-treated horses that raced on the turf (0%; 0/19) was significantly (P < 0.0001; CST) less than that of untreated horses (61%; 36/59). Although the proportion of horses that bled (i.e., had EIPH scores > 0) was significantly (P = 0.0129; CST) greater among horses that raced on the dirt (61%; 20/33) than on the turf (23%; 5/22), the proportion of horses that had EIPH scores > 2 was not significantly (P = 0.4540; FET) different between horses that raced on the dirt (18%; 6/33) than on the turf (9%; 2/22). Note that these results should be regarded with considerable caution: this study was not designed to evaluate the effects of surface (or sex, race conditions, etc.) on EIPH severity. Not only is the study under-powered (i.e., small sample size), but it is also not well designed to investigate these questions because of possible confounding and selection biases.

HAGYARD
Equine Medical Institute

Hagyard-Davidson-McGee Since 1876

Hagyard-Davidson-McGee Associates, PLLC
4250 Iron Works Pike
Lexington, Kentucky
40511-8412
e-mail: info@hagyard.com
www.hagyard.com

Phone (859) 255-8741
Fax (859) 253-0196
Medicine (859) 253-0002
Surgery (859) 233-0026
Laboratory (859) 259-3685

h. Performance: Finish position was not recorded for 1 horse (horse number 24, a BC horse that was not scoped). The proportion of winners was similar (P = 1.0000; FET) in the furosemide-treated group (11%; 2/19) and the untreated group (9%; 5/58). The proportion of horses that won, placed, or showed (finished in positions 1, 2, or 3) did not differ significantly (P = 0.8191) between furosemide-treated horses (29%; 6/19) and untreated horses (25%; 15/59).

2. Comparison of BC horses and non-BC horses

Because none of the BC horses received furosemide, it is impossible to separate effects of BC and furosemide treatment. Thus, it was important to consider in what ways the BC horses differed from the non-BC horses.

There was no significant difference between the BC horses and non-BC horses in proportions of males, horses racing on the turf, racing on firm track condition, winners or horses finishing in the top 3 positions (of course!), or in the time in minutes to scoping (Table 7). All BC horses and none of the non-BC horses raced in a Grade 1 stake race, and this difference was significant (P < 0.0001; CST Table 7). The proportion of horses that raced ≥ 8 furlongs was significantly (P = 0.0001; FET) greater among BC horses (100%; 50/50) than among non-BC horses (68%; 19/28).

Table 7. Comparison of BC and non-BC horses

Variable	*BC*	*Non-BC*	*P*	*Test#*
Male	52% (26/50)	54% (15/28)	0.9179	CST
Turf race	54% (27/50)	32% (9/28)	0.1051	CST
Track firm	54% (27/50)	32% (9/28)	0.1051	CST
Winner	8% (4/49)	11% (3/28)	0.7003	FET
Win, place, or show	24% (12/50)	32% (9/28)	0.6089	CST
Grade I stakes	100% (50/50)	0% (0/28)	<0.0001	CST
≥ 8 furlongs	100% (50/50)	68% (19/28)	<0.0001	FET
Minutes to scoping*	45 (28 to 116)	44 (31 to 327)	0.8257	WRST

CST = chi-squared test; FET = Fisher's exact test; WRST = Wilcoxon rank-sum test
* Median (range; N= 30 for BC horses and 21 for non-BC horses)

HAGYARD
Equine Medical Institute

Hagyard-Davidson-McGee Since 1876

Hagyard-Davidson-McGee Associates, PLLC

4250 Iron Works Pike
Lexington, Kentucky
40511-8412
e-mail: info@hagyard.com
www.hagyard.com

Phone (859) 255-8741
Fax (859) 253-0196
Medicine (859) 253-0002
Surgery (859) 233-0026
Laboratory (859) 259-3685

Of primary interest was the extent to which BC horses might have been more likely to have EIPH or EIPH scores given that they were not treated with furosemide. The overall distribution of EIPH scores differed significantly (P = 0.0293; FET) between BC and non-BC horses (Table 8). Although the proportion of BC horses that bled (i.e., had EIPH score > 0; 35%; 22/34) was less than that of non-BC horses (62%; 13/21), this difference was not significant (P = 0.0996). However, the proportion of BC horses that had EIPH score > 2 (3%; 1/33) was significantly (P = 0.0034; FET) less than that of the non-BC horses (33%; 7/21).

The fractions and winning times of the races were tabulated for the 8 races in which the 78 horses were entered (Table 9). Because these 7 races varied in distance, sex of horses, and surface, inferential statistical analysis was not feasible. Qualitatively, however, it does not appear that observed differences in EIPH score either among furosemide-treated and untreated horses or BC and non-BC horses were attributable to the non-BC races being either longer or faster. There was no evidence that horses in the 6.5-furlong race were more likely to bleed or bleed more than other horses. The proportion of horses that bled was similar (P = 1.0000; FET) for those that raced 6.5 furlongs (43%; 3/7) and those that raced $\geq$ 8 furlongs (46%; 22/48). Although the proportion of horses that raced 6.5 furlongs that had EIPH scores > 2 (29%; 2/7) was greater than that of horses racing $\geq$ 8 furlongs (12%; 6/48), this difference was not significant (P = 0.2668).

Table 8. EIPH scores by BC status (N = No; Y = Yes)

BC	EIPH score 0	1	2	3	4	Total
N	8 (38%)	4 (19%)	2 (10%)	5 (23%)	2 (10%)	21 (100%)
Y	22 (65%)	8 (24%)	3 (9%)	1 (3%)	0 (0%)	34 (100%)
Total	30	12	5	6	2	55

HAGYARD
Equine Medical Institute

Hagyard-Davidson-McGee Since 1876

Hagyard-Davidson-McGee Associates, PLLC

4250 Iron Works Pike
Lexington, Kentucky
40511-8412
e-mail: info@hagyard.com
www.hagyard.com

Phone (859) 255-8741
Fax (859) 253-0196
Medicine (859) 253-0002
Surgery (859) 233-0026
Laboratory (859) 259-3685

Table 9. Description of the 7 races in which the 78 starters raced.

Race	Fillies/Colts	Breeders Cup	Lasix Y or N	Dirt/ Turf	Furlongs	Time Off	2 Furlongs	4 Furlongs	6 Furlongs	8 Furlongs	Final
Golden Stakes Juvenile	Colts	No	Yes	Dirt	8	11:52	23.03	46.83	71.53	97.53	97.53
Golden Stakes Juvenile Fillies	Fillies	No	Yes	Dirt	8	12:28	22.78	46.41	71.14	97.58	97.58
Juvenile Turf	Colts	Yes	No	Turf	8	2:28	22.27	45.70	69.53	93.20	93.20
Juvenile Fillies Turf	Fillies	Yes	No	Turf	8	3:52	22.47	46.31	70.08	93.72	93.72
Juvenile Turf Sprint	Both	No	No	Turf	6.5	10:16	21.52	43.28	68.17	na	72.36
Juvenile Fillies	Fillies	Yes	No	Dirt	8.5	12:07	22.55	45.31	69.30	96.03	103.02
Juvenile	Colts	Yes	No	Dirt	8.5	2:46	22.66	45.38	69.70	96.66	103.52

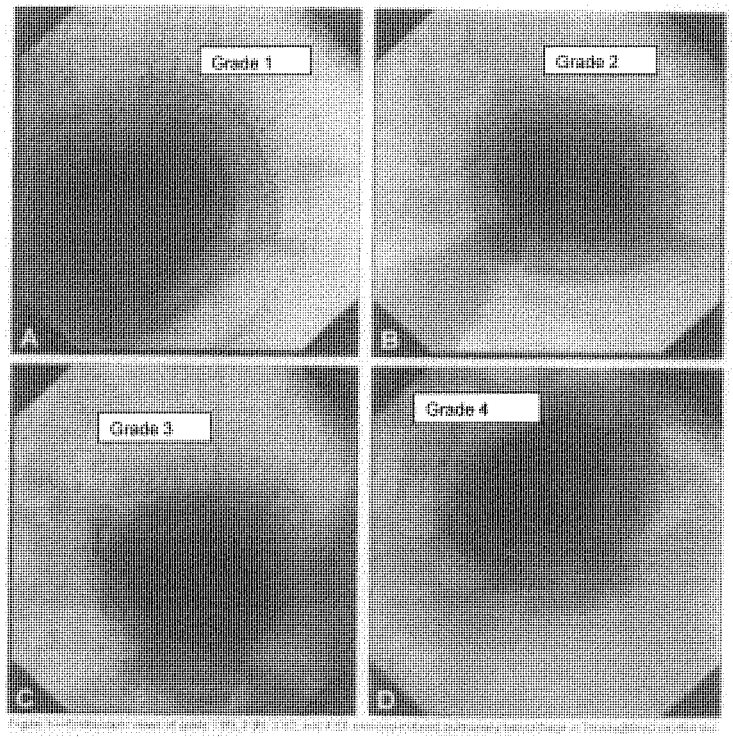
HAGYARD
Equine Medical Institute

Hagyard-Davidson-McGee Since 1876

Hagyard-Davidson-McGee Associates, PLLC

4250 Iron Works Pike
Lexington, Kentucky
40511-8412
e-mail: info@hagyard.com
www.hagyard.com

Phone (859) 255-0741
Fax (859) 253-0196
Medicine (859) 253-0002
Surgery (859) 233-0026
Laboratory (859) 259-3885



Grade 1: 1 or more flecks of blood

Grade 2: Two or Less short streams of blood <10% of tracheal width

Grade 3: Multiple (> 2) distinct streams of blood

Grade 4: Multiple coalescing streams of blood covering > 90 % surface of trachea

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–6115
Majority (202) 225-2927
Minority (202) 225-3641

January 8, 2014

Mr. Wayne Pacelle
President and CEO
The Humane Society of the United States
2100 L Street, N.W.
Washington, D.C. 20037

Dear Mr. Pacelle,

Thank you for appearing before the Subcommittee on Commerce, Manufacturing, and Trade on Thursday, November 21, 2013 to testify at the hearing entitled "H.R. 2012, a bill to improve the integrity and safety of interstate horseracing, and for other purposes."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions by the close of business on Wednesday, January 22, 2014. Your responses should be e-mailed to the Legislative Clerk in Word format at **Kirby.Howard@mail.house.gov** and mailed to Kirby Howard, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Lee Terry
Chairman
Subcommittee on Commerce,
Manufacturing, and Trade

cc: Jan Schakowsky, Ranking Member, Subcommittee on Commerce, Manufacturing, and Trade
Attachment

Additional Questions for the Record
Responses from Wayne Pacelle, President and CEO of The Humane Society of the United States

The Honorable Joe Pitts

1. **Horse fatality public transparency**

   Last year HBO canceled the television series *Luck* after outrage over the deaths of three horses during filming in California. Yet the state's equine medical director for horseracing, Dr. Rick Arthur, told the New York Times that, quote:

   "During that same period of time [as the filming of the HBO series], there were 613 other horses at California racetracks that died. That's very difficult to justify...."

   Dr. Arthur also wrote in a 2011 article "Equine Welfare Issues in Horse Racing" from the book *Equine Welfare*, that some trainers have higher horse fatality rates than others. Dr. Arthur further explains that "This has been recognized in horse racing, with little repercussion on the trainer because the relevant information is not readily available to the public."

   a. **Could increased transparency encourage better safety outcomes for horses?**
      Yes, increased transparency would be beneficial to horse welfare, especially making public all the medications a horse is receiving as well as notes the track veterinarian makes during the pre-race exam.

   b. **Would HSUS support a policy of publicly disclosing trainers' horse fatality rates?**
      Yes, this transparency is needed and in fact, we believe that trainers' horse fatality rates should be published in the racing program along with the handicapping data. This should be required as part of the pari-mutuel licensing of racetracks. Information about the number of horses individual trainers are responsible for training per year can also add perspective. If a trainer is responsible for training 30 horses per year and 10 horses break down on the track, that detailed information would be a greater indicator of a pattern of abuse than a trainer who is responsible for training 200 horses and has 10 breakdowns.

2. **In a Daily Racing Form interview from February 2012, you said, "We plug into the horse racing issues from time to time. We certainly support the Horseracing Improvement Act of 2011, to deal with the use of performance enhancing drugs on race day and to set up a national authority to regulate the sport. Our objective at the Humane Society of the United States is to make the horse racing industry, and the owner and trainers, do their best, including by setting rules that minimize the prospect of catastrophic injuries."**

What is your position with the current legislation before this subcommittee: H.R. 2012?
We enthusiastically support this bill because of its potential to improve the welfare of horses by minimizing injuries and deaths where drugs may be a contributing factor. The racing industry's attempts at reform have failed to protect race horses from being treated as disposable, rather than highly skilled athletes and companions, despite a number of high profile incidents and scathing exposés.

3. **Mr. Hanrahan states in his written testimony: "Turning to H.R. 2012, the NHBPA opposes its enactment because the bill attempts to address a problem that in reality does not exist, and purports to do so by employing an organization, the United States Anti-Doping Agency ("USADA"), which has neither the experience nor the resources to carry out a legislatively assigned task of regulating medication in the horse racing industry."**

   Do you agree with the NHBPA that this bill attempts to address a problem that does not exist?
   We disagree with Mr. Hanrahan's assertion that a problem doesn't exist and that USADA is not suitable to regulate medication in horse racing. A recent New York Times study examined 150,000 horse races from 2009 to 2011 and found that minimal oversight, routine doping of horses on race-day, and inconsistent regulations are putting both horses and jockeys in jeopardy, resulting in an average of 24 race horse deaths every week in the United States. Additionally, a follow up study by a New York task force concurred that the majority of racetrack fatalities in the state are preventable.

   Our members and supporters care deeply about animal welfare, whether or not they have direct contact with horses or any associated horse industries. It is not acceptable that 24 horses dying each week are seen as the cost of doing business; we know that no other professional sport, nor its fan base, would accept such a fatality rate for its athletes. The name of this bill, The Horseracing Integrity and Safety Act, describes precisely the bill's intention—to restore both integrity and safety to a sport whose popularity is declining.

4. **On Page 6 or his written testimony, Mr. Hanrahan states: "The AAEP warns what is likely to happen if Lasix is not permitted on race day: The racing industry should anticipate that other methods will be employed to reduce the incidence of EIPH if a race-day ban on Lasix is instituted. The practice of withholding food and water from the horse in the days leading up to a race should be expected. As doctors of veterinary medicine we believe that the detriments of withholding food and water to the health and welfare of the horse outweigh the current concerns about race-day Lasix administration. The racing industry should also expect that unproven and perhaps undetectable products will be used in an attempt to alleviate EIPH on race day. Some of**

these products may include, but are not limited to, herbal remedies, nutraceuticals, and compounded medications that are not approved for use in the horse and have no scientific merit or efficacy in treating EIPH. The potential harmful side effects of these products to the horse are a serious concern."

a. **Do you agree that a valid reason for allowing the use of one medication is to prevent the use of substances and practices that are more inhumane?**
We do not subscribe to a policy of allowing the continued use on race day of one drug with known risks based on speculation that a ban on this drug would result in inhumane management practices, including withholding food and water for periods of time. No medication or treatment that puts a compromised horse on the racetrack is acceptable: it puts the horse, the jockey, and the industry at risk.

b. **Does the HSUS support this reasoning?**
We believe that if a horse can only race with drugs in his system, that horse is not fit to race at all. Even the best testing in the United States is subject to falling behind trainers' experimentation with anything that might give them an edge, including Viagra, blood doping agents, stimulants, cancer drugs, cocaine, and chemicals that bulk up pigs for slaughter, known as "pig juice." In 2013, the latest craze was "frog juice," or dermorphin - an amino acid 40 times more powerful than morphine found naturally in certain species of frogs. The solution is to have a robust testing agency in place that is constantly monitoring for the use of new substances, testing horses for their use, and imposing severe penalties to act as a strong deterrent to this experimentation.

c. **If a veterinarian or horseracing official suspects that inhumane practices are being used by trainers, do they have a duty to report this to authorities?**
According to the AVMA's Principles of Veterinary Medical Ethics, "Veterinarians should report illegal practices and activities to the proper authorities." If veterinarians are aware of inhumane practices which are illegal, this principle certainly dictates that they report them to the authorities. Further, veterinarians are expected to be watchdogs for race horses and should report any knowledge they have of the use of potentially harmful medications and treatments to the proper authorities.

<u>The Honorable Jan Schakowsky</u>

1. **A widely-cited investigation last year by *The New York Times* found that racehorses are dying at alarming rates – on average, 24 horses suffer fatal injuries every week at America's racetracks. When adjusted on a per capita basis, serious injuries and deaths are occurring far more frequently here than in other nations with longstanding racing traditions.**

I think it is evident that meaningful changes need to happen – to protect the safety not only of the horses suffering breakdowns, but also their jockeys and the horses and jockeys around them. Many close observers of the horse racing industry have suggested that the best place to start, for reform, is on the improper or illegal use of drugs, which is understood to be widespread.

a. Do you believe that we would see fewer catastrophic failures, horse deaths and injuries to jockeys if we banned the administration of medications in the 24 hours prior to the race, like outlined in this bill?

Yes. If horses need medication to race, they are not fit to race. The reckless use of doping to put unsound horses on the track poses needless risks to the animals and the jockeys.

b. Would you say that horses that race in the United States are more or less healthy than their counterparts in Europe and elsewhere? Do racehorses here suffer more catastrophic injuries than in other areas?

Roughly twice as many fatal breakdowns occur in the Unites States as in other countries that have racing industries, including countries in Europe, Hong Kong, Dubai, and Australia.

c. Do you believe that the doping of horses, whether with painkillers, Lasix or worse, amounts to animal abuse? Why or why not?

People who own and train race horses have a responsibility to see that the horses are sound and fit for racing, especially given the inherent risks of this sport. Doping horses to enhance their performance or mask injury contributes to higher breakdown rates, and more injuries and fatalities. Federal legislation is needed to address the patchwork of state laws that govern horse racing. There has been an ongoing failure by the industry to adopt reasonable federal standards that will discourage race-day doping and protect horses from undue risk.

d. What about the racing of yearlings or 2-year-old horses, which are not fully developed, or the too-frequent racing of horses of any age?

We continue to be concerned about yearlings and 2-year-olds placed into competition. One- and two-year-old horses enlisted to race probably suffer higher rates of breakdown than more physically mature horses.

According to a New York Times series of articles on horse racing, the majority of breakdowns occur at the lower level claiming races, in which horses are often raced more frequently. Seventy percent of Thoroughbred races are known as claiming races which may serve as an outlet for horses who have injuries too severe to allow them continue to run at a higher level.

e. Do you believe that the designation of an independent anti-doping agency like USADA to oversee the horseracing industry's compliance on this topic would lead to better outcomes for the horses involved?

Yes, we believe that race horses would benefit from an independent anti-doping agency overseeing racing. Currently, each state that allows horse racing has its own independent state racing commission that regulates and facilitates all aspects of the pari-mutuel industry in the state. These thirty-eight racing jurisdictions depend upon the use of an assortment of different labs using dissimilar equipment for testing. USADA, which would operate independently from the racing industry, has a proven track record of having the equipment, training, policies, and personnel to establish uniform testing protocols. USADA, is recognized by Congress as the official anti-doping agency for Olympic, Pan American, and Paralympic sports in the United States. They clearly have been successful at identifying methods of cheating in human athletes, and an objective, uniform protocol would prevent trainers from moving from state to state to avoid facing the consequences of doping violations.

f. Doug O'Neill, a Kentucky Derby-winning trainer, has been cited for more than a dozen violations of horse doping, but is still active today. Do you believe that the penalties present in H.R. 2012 would effectively prevent repeat offender situations like this?

Yes, this legislation would prevent trainers from hopscotching from one jurisdiction to another to escape oversight, by creating uniform regulations that apply to all trainers in all 38 jurisdictions. Nationwide regulations would help to provide a level playing field, to deter cheaters and help rid the sport of unethical trainers. Under the current system, it is a conflict of interest for a jurisdiction to be responsible for banning a trainer from horse racing if that trainer races several horses and the jurisdiction benefits financially from the money those races generate.