(Public Law 92–463), notice is hereby given of the following meeting:  

**Name:** Advisory Commission on Childhood Vaccines (ACCV).

**Date and Time:** March 6, 2014, 1:00 p.m. to 4:15 p.m. EDT; March 7, 2014, 9:00 a.m. to 12:00 p.m. EDT.

**Place:** Parklawn Building (and via audio conference call and Adobe Connect), Conference Room 10–65, 5600 Fishers Lane, Rockville, MD 20857.

The ACCV will meet on Thursday, March 6, 2014, 1:00 p.m. to 4:15 p.m. EDT and Friday, March 7, 2014, 9:00 a.m. to 12:00 p.m. EDT. The public can join the meeting by:

1. **(In Person)** Persons interested in attending the meeting in person are encouraged to submit a written notification to: Annie Herzog, DVIC, Healthcare Systems Bureau (HSB), Health Resources and Services Administration (HRSA), Room 11C–26, 5600 Fishers Lane, Rockville, Maryland 20857 or email: aherzog@hrsa.gov.

Since this meeting is held in a federal government building, attendees will need to go through a security check to enter the building and participate in the meeting. This written notification is encouraged so that a list of attendees can be provided to expedite entry through security. Persons may attend in person without providing written notification, but their entry into the building may be delayed due to security checks and the requirement to be escorted to the meeting by a federal government employee. To request an escort to the meeting after entering the building, call Mario Lombre at (301) 443–3196. The meeting will be held at the Parklawn Building, Conference Room 10–65, 5600 Fishers Lane, Rockville, MD 20857.

2. **(Audio Portion)** Calling the conference phone number, 877–917–4913, and providing the following information:

   **Leaders Name:** Dr. Vito Caserta
   **Password:** ACCV

3. **(Visual Portion)** Connecting to the ACCV Adobe Connect Pro Meeting using the following URL: https://hrsa.connectsolutions.com/accv (copy and paste the link into your browser if it does not work directly, and enter as a guest). Participants should call and connect 15 minutes prior to the meeting in order for logistics to be set up. If you have never attended an Adobe Connect meeting, please test your connection using the following URL: https://hrsa.connectsolutions.com/common/help/en/support/meeting_test.htm and get a quick overview by following URL: http://www.adobe.com/go/connectpro_overview. Call (301) 443–6634 or send an email to aherzog@hrsa.gov if you are having trouble connecting to the meeting site.

**Agenda:** The agenda items for the March meeting will include, but are not limited to: (1) Updates from the Division of Vaccine Injury Compensation (DVIC), Department of Justice, National Vaccine Program Office, Immunization Safety Office (Centers for Disease Control and Prevention), National Institute of Allergy and Infectious Diseases (National Institutes of Health) and Center for Biologics, and Evaluation and Research (Food and Drug Administration); (2) Report from the ACCV Process Workgroup; (3) Review of Vaccine Information Statements; and (4) Presentation on Pneumococcal Polysaccharide (Pneumovax 23) Vaccine Safety Review. A draft agenda and additional meeting materials will be posted on the ACCV Web site (http://www.hrsa.gov/vaccinecompensation/accv.htm) prior to the meeting. Agenda items are subject to change as priorities dictate.

**Public Comment:** Persons interested in providing an oral presentation should submit a written request, along with a copy of their presentation to: Annie Herzog, DVIC, Healthcare Systems Bureau (HSB), Health Resources and Services Administration (HRSA), Room 11C–26, 5600 Fishers Lane, Rockville, MD 20857 or email: aherzog@hrsa.gov.

Persons requiring information regarding the ACCV should contact Annie Herzog, DVIC, HSB, HRSA, Room 11C–26, 5600 Fishers Lane, Rockville, MD 20857; telephone (301) 443–6634 or email: aherzog@hrsa.gov.


Jackie Painter,  
Deputy Director, Division of Policy and Information Coordination.

[FR Doc. 2014–03441 Filed 2–14–14; 8:45 am]

BILLING CODE 4165–15–P

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**National Institutes of Health**

**Government-Owned Inventions; Availability for Licensing**

**AGENCY:** National Institutes of Health, HHS.

**ACTION:** Notice.

**SUMMARY:** The inventions listed below are owned by an agency of the U.S. Government and are available for licensing in the U.S. in accordance with 35 U.S.C. 209 and 37 CFR part 404 to achieve expeditious commercialization of results of federally-funded research and development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licensing.

**FOR FURTHER INFORMATION CONTACT:**

Licensing information and copies of the U.S. patent applications listed below may be obtained by writing to the indicated licensing contact at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852–3804; telephone: 301–496–7057; fax: 301–402–0220. A signed Confidential Disclosure Agreement will be required to receive copies of the patent applications.

**Multiple Antigenic Peptide Assays for Detection of HIV and SIV Type Retroviruses**

**Description of Technology:** CDC scientists have developed multiple antigenic peptide immunoassays for the detection of human immunodeficiency virus (HIV) and/or simian immunodeficiency virus (SIV). HIV can be subdivided into two major types, HIV–1 and HIV–2, both of which are believed to have originated as result of zoonotic transmission. Humans are increasingly exposed to many different SIVs by wild primates. For example, human exposure to SIVs may lead, or may have already led, to transmission of SIVs with potential for new virus induced immunodeficiency epidemics. Unfortunately, new cases of
zoonotic virus transmission may go undetected because of the lack of SIV-specific tests. Thus, there is the potential to compromise the safety of the blood donor supply system and seed a new HIV-like epidemic. This invention addresses these problems by providing a way to test all primates for the many divergent lentivirus strains to identify primary infections and prevent secondary transmission.

**Potential Commercial Applications:**
- Detection and differentiation of HIV–1, HIV–2 and SIVs
- HIV/SIV surveillance
- SIV/HIV/AIDS research
- Sero-monitoring of potential zoonotic transmissions
- Blood-donation supply assurance tool

**Competitive Advantages:**
- Fills an unmet need for SIV-specific tests
- Sensitive and specific
- Easily adapted to kit/array format
- Research indicates greater sensitivity than standard HIV enzyme immunoassays (EIAs) for detecting SIV infections

**Development Stage:** In vitro data available.

**Inventors:** Marcia L. Kalish, Clement B. Ndongmo, Chou-Pong Pau, William M. Switzer, Thomas M. Folks (all of CDC).

**Publication:**

**Intellectual Property:** HHS Reference No. E–294–2013/0—
- PCT Application No. PCT/US2004/011022 filed 08 Apr 2004
- US Patent No. 8,254,461 issued on 03 Sep 2013
- Various international patent applications pending or issued

**Licensing Contact:** Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov

**Auditory Training System and Telemedicine Tool with Accurate Reproduction of Physiological Sounds**

**Description of Technology:** This CDC developed auscultatory training apparatus includes a database of prerecorded physiological sounds (e.g., lung, bowel, or heart sounds) stored on a computer for playback. Current teaching tools, which utilize previously recorded sounds, suffer from the disadvantage that playback environments cause considerable distortion and errors in sound reproduction. For example, to those trainees using such systems, the reproduced respiratory sounds do not “sound” as if they are being generated by a live patient. Moreover, the aforementioned playback distortions often make it difficult for the listener to hear and interpret the subtleties of a recorded respiratory maneuver.

This device includes a software program that allows a user to select prerecorded sounds for playback. The program will also generate an inverse model of the playback system in the form of a digital filter. The inverse model processes a selected sound to cancel the distortions of the playback system so the sound is accurately reproduced. The program also permits the extraction of a specific sound component from a prerecorded sound so only the extracted sound component is audible during playback. In addition to the obvious role of a teaching tool for medical professionals, this invention could have applications as a diagnostic screening and/or telemedicine tool.

**Potential Commercial Applications:**
- Auscultatory training for health care professionals
- Telemedicine tool
- Diagnostic screening and comparison and control

**Competitive Advantages:**
- Accurate, realistic reproduction of in situ physiological sounds
- Apparatus features noise-cancelling filter to eliminate ambient distortion artifacts during playback
- Device is extremely portable
- Allows for isolation and playback of specific elements of a recording

**Development Stage:** In situ data available (on-site)

**Prototype

**Inventors:** Walter G. McKinney, Jeff S. Reynolds, Kimberly A. Friend, William T. Goldsmith, David G. Frazer (all of CDC).

**Publications:**

**Intellectual Property:** HHS Reference No. E–283–2013/0—
- International patent application pending (Canada)

**Related Technology:** HHS Reference No. E–245–2013/0.

**Licensing Contact:** Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov

**Enterovirus Molecular Diagnostic Test Kit**

**Description of Technology:** CDC researchers have developed a reverse transcription/semi-nested polymerase chain reaction (RT-snPCR) assay for diagnosis of enterovirus infections within clinical specimens. Clinical laboratories currently identify enteroviruses by virus isolation and subsequent virus neutralization tests, or serological assays. In addition to being time consuming, these approaches are labor, cost and material intensive.

The enterovirus molecular diagnostic test is prepared in a kit form, consisting of three reagent preparations (three separate test steps), to which a technician adds enzymes and RNA extracted from a clinical specimen. This format is amenable to commercial manufacturing processes. The assay primers were designed for broad specificity and amplify all recognized enterovirus serotypes. In the course of assay development, PCR products have been successfully amplified and sequenced from cerebrospinal fluid, nasopharyngeal swabs, eye swabs, rectal swabs and stool suspensions, allowing for unambiguous identification of the infecting virus in all cases. This assay will be useful for the diagnosis of numerous common illnesses, such as foot-and-mouth disease, respiratory illness, conjunctivitis, neonatal illness, and myocarditis, among several others.

**Potential Commercial Applications:**
- Detection and identification of enterovirus infections, such as foot-and-mouth disease
- Diagnostic evaluations of respiratory or neonatal illnesses
- Enterovirus surveillance programs for humans and animals/livestock

**Competitive Advantages:**
- Ready for commercialization
- Easily adaptable to kit form
- Rapid, cost-efficient serotype identification
- High specificity and precision
- Assay covers all known human enterovirus serotypes

**Development Stage:** In vitro data available

**Inventors:** William A. Nix and M. Steven Oberste (CDC)

**Publications:**
1. Nix WA, et al. Sensitive, seminested PCR


In vitro data available

• Consistent and renewable source for positive controls can be included in molecular genetic tests, particularly for generating artificial compositions that can be used as positive controls in a genetic testing assay, such as a diagnostic assay for a particular genetic disease. Such controls can be used to confirm the presence or absence of a particular genetic mutation. The lack of easily accessible, validated mutant controls has proven to be a major obstacle to the advancement of clinical molecular genetic testing, validation, quality control (QC), quality assurance (QA), and required proficiency testing. This method provides a consistent and renewable source of positive control material, as well as an alternative to patient-derived mutation-positive samples.

Potential Commercial Applications: Generation of positive controls for molecular genetic tests, particularly for tests to detect cystic fibrosis.

Competitive Advantages:

• Positive controls can be included in new kits or packaged with pre-existing assays
• Increased accuracy in diagnosis compared to current controls
• Consistent and renewable source for high-quality controls containing mutations of interest

Development Stage:

• Early-stage
• In vitro data available

Inventors: Wayne W. Grody (Regents of Univ of CA), Michael R. Jarvis (Regents of Univ of CA), Ramaswamy K. Iyer (Regents of Univ of CA), Laurina O. Williams (CDC).

Inventors: Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov

Generation of Artificial Mutation Controls for Diagnostic Testing

Description of Technology: This technology relates to a method of generating artificial compositions that can be used as positive controls in a genetic testing assay, such as a diagnostic assay for a particular genetic disease. Such controls can be used to confirm the presence or absence of a particular genetic mutation. The lack of easily accessible, validated mutant controls has proven to be a major obstacle to the advancement of clinical molecular genetic testing, validation, quality control (QC), quality assurance (QA), and required proficiency testing. This method provides a consistent and renewable source of positive control material, as well as an alternative to patient-derived mutation-positive samples.

Potential Commercial Applications: Generation of positive controls for molecular genetic tests, particularly for tests to detect cystic fibrosis.

Competitive Advantages:

• Positive controls can be included in new kits or packaged with pre-existing assays
• Increased accuracy in diagnosis compared to current controls
• Consistent and renewable source for high-quality controls containing mutations of interest

Development Stage:

• Early-stage
• In vitro data available

Inventors: Wayne W. Grody (Regents of Univ of CA), Michael R. Jarvis (Regents of Univ of CA), Ramaswamy K. Iyer (Regents of Univ of CA), Laurina O. Williams (CDC).

Inventors: Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov

Novel In Vitro Granuloma Model for Studying Tuberculosis and Drug Efficacy

Description of Technology: CDC researchers have developed an in vitro model system designed to simulate early-stage Mycobacterium tuberculosis infection and induced granuloma formation. This modeling platform can be used for studying tuberculosis pathogenicity, identifying phenotypically-interesting clinical isolates, studying early-stage host cytokine/chemokine responses, and in vitro candidate-drug screening. The approach incorporates autologous human macrophages, human peripheral blood mononuclear cells, and mycobacteria to mimic in situ granuloma formation in a controllable in vitro environment. This technology would be broadly useful for investigations into the numerous facets of early granuloma host-pathogen interaction, ultimately leading to improved prevention, intervention, and treatment strategies.

Potential Commercial Applications:

• In vitro modeling system
• Basic research into tuberculosis-host interactions
• Drug candidate screening

Competitive Advantages:

• Low-cost alternative for modeling mycobacterial infections within complex tissue systems
• Allows researchers to examine early-stage granuloma formation in a highly controllable, human-based modeling system
• Cost-effective screening of potential therapeutic compounds and/or phenotypically-interesting mycobacteria

Development Stage:

• In vitro data available
• Prototype

Inventors: Frederick D. Quinn, et al. (CDC).


• U.S. Patent No. 7,105,170 issued 12 Sep 2006
• Various international patents issued or pending

Licensing Contact: Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov

Diagnostic Antigens for the Identification of Latent Tuberculosis Infection

Description of Technology: CDC researchers have developed technology for sero-diagnosis of typically symptomless latent stage tuberculosis disease, posing a threat to individuals under immunosuppressive or anti-inflammatory therapies. Specifically, this diagnostic approach exploits M. tuberculosis secreted latency specific antigens, such as alpha-crystallin, in the blood or urine of patients. This type of test could easily be developed into an inexpensive dip-stick format with high specificity (no cross-reactivity with other mycobacteria), rapidity, and sensitivity (fewer bacteria needed for a positive identification). Because secreted antigens are recognized more readily by the immune system, serum-derived antibodies to these antigens can correspondingly be used for diagnostic or research use.

Potential Commercial Applications:

• Development of a latent tuberculosis diagnostic
• Improvements to current diagnostics
• Public health/tuberculosis monitoring programs
• Screening elderly patients before beginning anti-inflammatory and/or anti-arthritis therapy

Competitive Advantages:

• Rapid and inexpensive diagnostic for latent stage tuberculosis
• Specific for latent form, unlike current IGRA/TST diagnostics
• Easily developed as a cost effective dip-stick test
• Provides high specificity (no cross-reactivity with other mycobacteria) and sensitivity (fewer bacteria needed for a positive identification)

Development Stage:

• In vitro data available
• In vivo data available (human)

Inventors: Frederick D. Quinn, et al. (CDC).

Methods and Apparatus for Computer-Aided Cough Sound Analysis

Description of Technology: CDC researchers have developed a system that allows subjects to cough into a tubing system allowing the acoustics generated to be recorded with high fidelity and generated data is transferred to a computer for subsequent analysis. Lung diseases can be differentiated by the location of effect in the lungs that produce variations in cough sounds and patterns. Based on these differences, analysis software estimates the lung disease type of the subject. Those who benefit from cough sound analysis include subjects in the early stages of undetected lung disease, subjects with conditions not easily diagnosed by standard techniques, subjects who demonstrate difficulty performing forced expiratory maneuvers and other pulmonary function tests (e.g., elderly, young and very sick patients), and workers whose respiratory functioning may change during the workday.

Potential Commercial Applications:
- Clinical screening for early-stage respiratory illnesses
- Occupational health and safety
- Physiological data collection and algorithmic analysis
- Preventative and early intervention health care

Competitive Advantages:
- Increased accuracy in recorded observations
- Improved objectivity in analysis compared to traditional auscultatory methods
- Broadens the diagnostic toolset of primary/initial care physicians and respiratory therapists
- Portable for field studies and on-site screening/diagnostic use

Development Stage:
- In situ data available (on-site)
- Prototype


Publications:

Inexpensive, Personal Dust Detector Tube/Dosimeter Operating on a Gas Detector Tube Platform

Description of Technology: This CDC developed dust detector tube is designed to provide inexpensive, short-term, time weighted average dust exposure data feedback directly to device users. This invention operates upon a conventional gas detector tube platform and can be used with any low volume pump that can electronically measure pump back pressure. The device consists of three sections: the first defines the size of the dust and removes moisture, the second uses a filter whose pressure differential corresponds with cumulative dust loading, and a final section employs a pressure transducer.

Current methods require expensive instantaneous and short-term monitors or gravimetric filters that must be carefully pre- and post-weighted to determine the average dust exposure of a user’s work-shift. This novel dust dosimeter fills the need for an inexpensive short-term determination of personal dust exposure aiding in the assessment and preservation of worker respiratory health.

Potential Commercial Applications:
- Dust, gas and particulate detector/ dosimeter manufacturers
- Industry applications where worker-exposure to dust will be a concern, especially mining, construction and demolition fields
- Worker health and safety, related insurance agency concerns

Competitive Advantages:
- Provides inexpensive, short-term assessment of personal dust exposure
- Gas detector tube platform makes commercialization of this instrument
quite simple and efficient for related manufacturers/distributors
- Standardizing detection platforms increases cost-efficiency (especially for smaller companies) as the same pump can be used to measure both dust and gas

**Development Stage:** In situ data available (on-site).

**Inventors:** Jon Volkwein, Harry Dobroski, Steven Page (all of CDC).


**Licensing Contact:** Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov.

**Peptide Sequences for Chlamydia pneumoniae Vaccine and Serological Diagnosis**

**Description of Technology:** CDC researchers have isolated select Chlamydia pneumoniae peptide epitopes for development of vaccines and diagnostic assays. Currently, C. pneumoniae infection of humans has been linked to a wide variety of acute and chronic diseases, such as asthma, endocarditis, atherosclerotic vascular disease, chronic obstructive pulmonary disease, sarcoidosis, reactive arthritis and multiple sclerosis. There is presently no available peptide vaccine for the pathogen and reliable and accurate diagnostic methods are limited. This technology encompasses polypeptide sequences that are specifically recognized by anti-C. pneumoniae antibodies. These antigens may be useful for improving diagnostic methods by reducing the variability and high backgrounds found with methods that rely on whole organisms for detection. Further, this technology may also be useful for production of peptide or DNA-based vaccines directed against C. pneumoniae.

**Potential Commercial Applications:**
- C. pneumoniae vaccine and/or therapeutic developments
- Public health surveillance programs
- Clinical serological diagnostics development

**Competitive Advantages:**
- No peptide vaccine for C. pneumoniae is presently available
- Present assays for the diagnosis of C. pneumoniae infections are laborious and limited in efficacy

**Development Stage:** In vitro data available.

_Inventors:_ Eric L. Marston, Jacquelyn S. Sampson, George M. Carbone, Edwin W. Ades (all of CDC).


**Licensing Contact:** Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov.

**CD40 Ligand: Adjuvant for Enhanced Immune Response to Respiratory Syncytial Virus**

**Description of Technology:** CDC researchers have developed methods and adjuvants for enhancing a subject’s immune response to respiratory syncytial virus (RSV) by inclusion of a CD40 binding protein. RSV has long been recognized as a major respiratory tract pathogen of infants, as well as older children and the elderly. Established, successful methods for preventing RSV are currently unavailable. CD40 ligand (CD154) is an important costimulatory molecule found on the T-cell and is critical for the development of immunity. CD40L may provide a novel adjuvant to enhance cytokine and antibody response to RSV, directing a subject’s immune response further towards Th1-mediated outcomes rather than a less effective Th2-type response. This Th2-type response has been previously suggested as the cause of previous live RSV vaccine failures. This technology, appropriately developed and integrated into an RSV vaccination agenda, may be useful in improving the efficacy of current or future RSV vaccines.

**Potential Commercial Applications:**
- Improvements to current RSV vaccines
- Public health vaccination programs
- Enhancing antibody response and T-cell costimulation for targeted immunogenic outcomes
- Pharma development programs focusing on care for neonates, children and the elderly

**Competitive Advantages:**
- Increased expression of Th1-type cytokines and antibody production
- Enhanced CD40 costimulation
- May overcome prior live-RSV vaccine issues (which generated a primarily Th2-type immune response) by steering post-vaccination immunity further towards a preferred Th1-type (IL–2 and IFN-gamma) response, enhancing virus clearance in vivo

**Development Stage:**
- In vitro data available
- In vivo data available (animal)

**Inventors:** Ralph A. Tripp, Larry J. Anderson, Michael P. Brown (all of CDC)


**Licensing Contact:** Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov.

**Recombinant Polypeptides for Clinical Detection of Taenia solium and Diagnosis of Cysticercosis**

**Description of Technology:** CDC scientists have developed synthetic/recombinant polypeptides that can be used for the creation of inexpensive, high-quality cysticercosis diagnostic assays. _Taenia solium_ is a species of pathogenic tapeworm. Intestinal infection with this parasite is referred to as taeniasis and it is acquired by ingestion of _T. solium_ cysticerci found in raw and undercooked pork, or food contaminated with human or porcine excrement. Many infections are asymptomatic, but infection may be characterized by insomnia, anorexia, abdominal pain and weight loss. Cysticercosis is the formation of cysticerci in various body tissues resulting from the migration of the _T. solium_ larvae out of the intestine. Although infection with _T. solium_ is itself not dangerous, cysticercosis can be fatal. In the present invention, specific antigen encoding nucleotide sequences have been cloned; assays based on the produced antigens may be useful for improvements over the existing Western blot diagnostic method for identifying individuals with cysticercosis.

Additionally, these polypeptides may have applications in developing vaccines and therapeutics to prevent taeniasis.

**Potential Commercial Applications:**
• Diagnosis of *T. solium* infection and confirmation of cysticercosis
• Zoonotic disease research and surveillance
• Public health monitoring programs
• Livestock health and food-source monitoring
• Therapeutics/vaccine development

**Competitive Advantages:**

• May provide a rapid, accurate, sensitive and safe alternative to current radiologic, Western blot and biopsy diagnostic methods
• Can be easily formatted as a simple-to-use assay kit for FAST–ELISA
• Cost-effective, and quite useful for developing regions of the world

**Development Stage:** In vitro data available

**Inventors:** Victor C. Tsang, Ryan M. Greene, Patricia P. Wilkins, Kathy Hancock (all of CDC)


**Automated Microscopic Image Acquisition, Compositing and Display Software Developed for Applied Microscopy/Cytology Training and Analysis**

**Description of Technology:** MicroScreen is a CDC developed software program designed to capture images and archive and display a compiled image(s) from a portion of a microscope slide in real time. This program allows for the re-creation of larger images that are constructed from individual microscopic fields captured in up to five focal planes and two magnifications. This program may be especially useful for the creation of data archives for diagnostic and teaching purposes and for tracking histological changes during disease progression.

**Potential Commercial Applications:**

• Medical/cytology training, education and certification
• Forensic analysis

• Clinical diagnostics
• Basic and applied biology lab research

**Development Stage:**

• In vitro data available
• In situ data available (on-site)

**Inventors:** MariBeth Gagnon, Roger Taylor, James V. Lange, Tommy Lee, Carlyn Collins, Richard Draut, Edward Kujawski (all of CDC)


**Licensing Contact:** Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov

**Ultrasonic in situ Respirator Seal-Leakage Detection With Real-time Feedback Capabilities**

**Description of Technology:** This CDC invention entails methods and apparatuses for *in situ* testing seal integrity and improved operation of respiratory masks (respirators). A variety of external factors, such as individual face shape, user environment, mask age and material used to construct the respirator, can lead to device malfunction and failure to sufficiently protect a user. To address these limitations, this invention relies on ultrasonic wave detection to assess face seal quality and other potential leak paths, as needed. Airborne ultrasound travel through atmosphere and will travel through respirator leaks. Applying this phenomena to occupational health and safety, CDC researchers have developed novel ultrasonic technology to identify and quantify respirator seal leakage in real-time. Small, low power consuming, and inexpensive apparatuses and methods for generating and detecting ultrasound may be easily obtained and customized for a given respirator and/or application. By correlating user activity to seal sensor data, a precise understanding and awareness of respirator integrity may be obtained. When coupled with a subject alarm, these integrated values can immediately alert a user when a threshold of environmental exposure has been reached. Such real-time feedback will be invaluable to users in dangerous occupational activities, such as firefighters, biodefense and chemical spill first responders, mining applications, etc. Additionally, this invention possesses immense value for respirator mask manufacturers and workplace training programs for employees engaged in mandatory respirator usage applications.

**Potential Commercial Applications:**

• Manufacturers of respirators, leakage assessment devices and applied ultrasonic technology
• Regulators of respiratory protection plans
• Biohazard, biodefense and hazardous chemical handling and disposal
• Surgery/hospital training and use

**Development Stage:**

• In situ data available (on-site)

**Prototype**

**Inventors:** Jonathan Szalajda and William King (CDC)


**Licensing Contact:** Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov

**Physiologic Sampling Pump Capable of Rapidly Adapting to User Breathing Rate**

**Description of Technology:** This CDC developed physiologic sampling pump (PSP) overcomes shortcomings of previous devices by the use of calibrated valves in conjunction with a constant speed pump. This novel approach obviates typical PSP inertia that inherently limits system response, functionality and accuracy. All prior PSP designs have attempted to follow a user’s breathing pattern by changing pump speed, thereby altering sampling rate. In that approach, pump inertia will limit system response and function due to the time required to adjust speed. Additionally, variable pump speeds often produce size selective sampling errors at low flow rates. Performance of the PSP is not degraded by pump inertia or low flow size selective sampling errors. This
design maintains a consistent pump speed, controlling PSP sampling rate with calibrated valves that redirect air flow almost instantaneously. In situ device testing demonstrated that when this air-flow valve is properly integrated into a sampling head, response time of the PSP is essentially mutually exclusive of the magnitude of changes in the effective flow, facilitating consistently small error in sampling performance regardless of user-exertion scenario.

**Potential Commercial Applications:**
- Air sampling device manufacturers
- Assessing airborne hazard exposures for workplace safety
- Industrial hygiene programs
- Respiration monitoring device for patients
- Aerobic training system for athletes

**Competitive Advantages:**
- Allows for air sampling to be modulated to follow breathing rate
- Design obviates the sluggishness inherent in prior art physiologic sampling pumps (PSPs) caused by variable pump speed effect on sampling rate
- Improved accuracy compared to earlier PSPs, irrelevant of user-exertion scenarios
- Follows inhalation on a breath-by-breath basis

**Development Stage:**
- In situ data available (on-site)
- Prototype

**Inventors:** Larry Lee and Michael Flemmer (CDC)


**Licensing Contact:** Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov

**Cylindrical Handle Dynamometer for Improved Grip-Strength Measurement**

**Description of Technology:** CDC researchers have developed an improved dynamometer device and method for measuring maximum hand grip force or grip-strength. Human test subjects were used in conducting experiments to evaluate the handle and to assess the measurement method. In contrast to the currently used “Jamar handle” grip strength dynamometer devices, the cylindrical handle proved to be able to determine the overall grip strength for a subject, as well as show the grip force distribution around the circumference of the handle. The cylindrical dynamometer handle is accurate with less than 4% error, and it demonstrates that the measurement is independent of the loading position along the handle. For real-world applications, the device can be used to help diagnose the musculoskeletal disorders of the hand, monitor the recovery progress after hand surgery or injury, and collect grip strength data for tool and machine design.

**Potential Commercial Applications:**
- Useful for engineering functional design and ergonomic considerations for developing new tools and machinery
- Monitoring post-operative, post-stroke rehabilitation
- Diagnosis of carpal tunnel syndrome, musculoskeletal disorders and hand-arm vibration syndrome

**Competitive Advantages:**
- Compared to currently used “Jamar” grip test devices:
  - Cylindrical handle shape more comparable with real-world/worksplace machinery
  - Improved comfort
  - Cylindrical meter assesses the total grip force, together with the friction force and torque
  - Grip force distributed at the different parts of the hand can be measured with cylindrical meter—important information for the diagnosis of hand disorders

**Development Stage:**
- In situ data available (on-site)
- Prototype

**Inventors:** Bryan Wimer, Daniel E. Welcome, Christopher Warren, Thomas W. McDowell, Ren G. Dong (all of CDC)


**Licensing Contact:** Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov

**Methods for the Simultaneous Detection of Multiple Analytes**

**Description of Technology:** CDC researchers have developed a method of simultaneously detecting and distinguishing multiple antigens within a biological sample. Epidemiological and vaccine studies require species serotype identification. Current methods of serotyping are labor intensive and can easily give subjective, errant results.

This technology utilizes serotype specific antibodies bound to fluorescent beads, allowing for simultaneous single tube capture and detection of multiple antigens in one rapid, high-throughput flow cytometry assay. Such technology has an extremely wide range of useful applications, including but not limited to complex serotyping investigations for vaccine development and formulation, as a tool for rapid clinical prognosis or diagnosis, and the assay can be formatted as a kit for any number of laboratory research uses.

**Potential Commercial Applications:**
- Complex serotyping and/or multi-antigen composition investigations
- Tool for clinical diagnosis or prognosis of a disease or infection
- Tool for basic research

**Competitive Advantages:**
- Rapid flow cytometry assay
- Simultaneous detection of multiple different antigens and antibodies
- Excellent for high-throughput usage
- Provides a reliable, reproducible measurements of serotype-specific antigens within a sample
- Technology particularly well-developed for addressing S. pneumoniae serotyping concerns

**Development Stage:** In vitro data available

**Inventors:** Joseph E. Martinez and George M. Carlone (CDC)


**Licensing Contact:** Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov

**Extension-Ladder Safety: Multimodal-feedback Indicator for Improved Ladder Positioning Safety and Efficiency**

**Description of Technology:** Improper positioning of an extension ladder frequently results in “ladder slide-outs,” which are the most common cause of ladder-fall scenarios. This invention relates to an extension ladder positioning indicator which is easily installed in a ladder rung: provides multiple cues (visual, sound, and vibration) for rapidly identifying and positioning correct ladder inclination.

CDC–NIOSH researchers found that this technology improved accuracy and efficiency of ladder positioning for both “experienced” and “novice” ladder users, as compared to the “no instruction” method and the standard anthropometric method, and that it was also significantly faster than the bubble indicator method. When properly implemented, this effective and easy to use ladder positioning indicator will
reduce the risk of extension ladder slipping and tipping and, ultimately, will reduce the number of fall incidents and injuries—benefitting construction workers, employers, contractors and workplace insurers.

Potential Commercial Applications:
- Retrofitting existing ladders to provide automated, multisensory feedback for improved compliance with OSHA and ANSI ladder-angle safety guidelines
- Ladder manufacturing companies
- Construction contractors, retailers and insurers
- Training tool to aid worker safety education and adherence
- Competitive Advantages:
  - Direct, multimodal user feedback reduces the time for accurate, safe ladder positioning compared to bubble-level indicator, anthropometric and sight-based ladder-positioning methods
  - Visual, auditory and tactile feedback provide increased efficient-setup and safety
  - Technology can be incorporated as an attachable, device which may be affixed to a ladder or integrated as an app for a mobile/tablet device
  - Automated feedback ensures ladders are angled to OSHA and ANSI safety specifications
- Development Stage:
  - In situ data available (on-site)
  - Prototype
- Inventors: Peter Simeonov, Hongwei Hsiao, John Powers (all of CDC)


Licensing Contact: Whitney Blair, J.D., M.P.H.; 301–435–4937; whitney.blair@nih.gov.


Richard U. Rodriguez,
Director, Division of Technology Development and Transfer, Office of Technology Transfer, National Institutes of Health.

[FR Doc. 2014–03411 Filed 2–14–14; 8:45 am]
BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Office of the Director, National Institutes of Health; Notice of Meeting

Pursuant to section 10(a) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of a meeting of the Recombinant DNA Advisory Committee. The meeting will be open to the public, with attendance limited to space available. Individuals who plan to attend and need special assistance, such as sign language interpretation or other reasonable accommodations, should notify the Contact Person listed below in advance of the meeting.

Name of Committee: Recombinant DNA Advisory Committee.

Date: March 12, 2014.

Time: 9:30 a.m. to 3:30 p.m.

Agenda:
The NIH Recombinant DNA Advisory Committee (RAC) will review and discuss selected human gene transfer protocols and related data management activities. Please check the meeting agenda at OBA Meetings Page (available at the following URL: http://oba.od.nih.gov/oba/rac/rac_meetings.html) for more information.

Place: National Institutes of Health, Rockledge II, Conference Room 9100, 6701 Rockledge Drive, Bethesda, MD 20892.

Contact Person: Chris Nice, Program Assistant, Office of Biotechnology Activities, National Institutes of Health, 6705 Rockledge Drive, Suite 750, Bethesda, MD 20892, 301–496–9838, nicelc@mail.nih.gov.

Information is also available on the Institute’s/Center’s home page: http://oba.od.nih.gov/rdna/rdna.html, where an agenda and any additional information for the meeting will be posted when available.

OMB’s “Mandatory Information Requirements for Federal Assistance Program Announcements” (45 FR 39952, June 11, 1980) requires a statement concerning the official government programs contained in the Catalog of Federal Domestic Assistance. Normally NIH lists in its announcements the number and title of affected individual programs for the guidance of the public. Because the guidance in this notice covers virtually every NIH and Federal research program in which DNA recombinant molecule techniques could be used, it has been determined not to be cost effective or in the public interest to attempt to list these programs. Such a list would likely require several additional pages. In addition, NIH could not be certain that every Federal program would be included as many Federal agencies, as well as private organizations, both national and international, have elected to follow the NIH Guidelines. In lieu of the individual program listing, NIH invites readers to direct questions to the information address above about whether individual programs listed in the Catalog of Federal Domestic Assistance are affected.

(Catalogue of Federal Domestic Assistance Program Nos. 93.14, Intramural Research Training Award; 93.22, Clinical Research Loan Repayment Program for Individuals from Disadvantaged Backgrounds; 93.232, Loan Repayment Program for Research Generally; 93.39, Academic Research Enhancement Award; 93.936, NIH Acquired Immunodeficiency Syndrome Research Loan Repayment Program; 93.187, Undergraduate Scholarship Program for Individuals from Disadvantaged Backgrounds, National Institutes of Health, HHS)


Carolyn A. Baum.
Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2014–03395 Filed 2–14–14; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Center For Scientific Review; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6). Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Population Sciences and Epidemiology Integrated Review Group; Social Sciences and Population Studies B Study Section.

Date: February 28, 2014.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Renaissance Long Beach Hotel, 111 East Ocean Blvd., Long Beach, CA 90802.

Contact Person: Valerie Durrant, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 3148, MSC 7770, Bethesda, MD 20892, (301) 827–6390, durrantv@csr.nih.gov.

This notice is being published less than 15 days prior to the meeting due to the timing limitations imposed by the review and funding cycle.

Name of Committee: AIDS and Related Research Integrated Review Group; HIV/AIDS Vaccines Study Section.

Date: March 7, 2014.

Time: 8:30 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Renaissance Mayflower Hotel, 1127 Connecticut Avenue NW., Washington, DC 20036.

Contact Person: Mary Clare Walker, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5208, MSC 7852, Bethesda, MD 20892, (301) 495–1165, walkermc@csr.nih.gov.

Name of Committee: AIDS and Related Research Integrated Review Group; AIDS

[FR Doc. 2014–03395 Filed 2–14–14; 8:45 am]

BILLING CODE 4140–01–P