

	Over 3 years
William F. Ryan	2,400
Total	18,980

E-mail comments to paperwork@hrsa.gov or mail the HRSA Reports Clearance Officer, Room 10-33, Parklawn Building, 5600 Fishers Lane, Rockville, MD 20857. Written comments should be received within 60 days of this notice.

Dated: February 17, 2011.

Reva Harris,

Acting Director, Division of Policy and Information Coordination.

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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, Public Health Service, 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. 207 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.

ADDRESSES: 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.

LightCensor: A Detecting and Control Program That Guarantees That a Mobile Device Be Used Only in Appropriate Lighting Conditions When Displaying Medical Images

Description of Invention: The invention provides algorithm that when used in a mobile device (e.g. smartphone) can enhance the capabilities of mobile devices to be used

by medical professionals for medical imaging.

Thanks to its swiftly improved display quality, the smartphone has been advocated by the medical imaging vendors for viewing medical images in specific conditions that require urgency of the read or when full-size workstation displays are not readily available. However, as a hand-held device, the viewing conditions of a smartphone (e.g. ambient light and hand shaking) are not predictable and may adversely affect the perceived image quality. The present invention proposes the use of the built-in sensors in iPhone-like mobile devices to detect and adapt to the viewing conditions and hand shaking. The built-in camera can be used to capture the ambient light for determining the adaptation level, which affects the brightness, contrast and color perception. The built-in accelerometers can be used to detect orientation and moving velocity of the display, which affect the perceived spatial resolution. The execution of critical tasks can be then censored based on the detected scenario. If the viewing conditions are not suitable for reading medical images, for example, then the program could halt until the viewing conditions improve.

This invention can be used by consumer-grade mobile devices which were not originally designed for medical purposes to show medical images with improved perceived image quality.

Applications

- Biomedical imaging.
- Radiology.

Advantages: Improved image quality of mobile devices that minimizes issues related to inadequate light conditions or hand movement.

Development Status

- Algorithm developed.
- Prototype is being built.

Inventors: Wei-Chung Cheng and Aldo G. Badano (FDA).

Patent Status: HHS Reference No. E-284-2010/0—Research Tool/Software. Patent protection is not being pursued for this technology.

Licensing Status: Available for licensing.

Licensing Contacts

- Uri Reichman, PhD, MBA; 301-435-4616; UR7a@nih.gov.
- Michael Shmilovich, Esq.; 301-435-5019; ShmilovichM@mail.nih.gov.

A Novel MRI Phantom for Breast Imaging

Description of Invention: The invention offered for licensing is in the

field of breast cancer imaging. More specifically it relates to novel breast phantoms that can be used as reference in breast imaging. The anthropomorphic breast phantoms described in the invention comprise a combination of adipose tissue mimicking components and fibroglandular tissue mimicking components. Typically, x-ray attenuation coefficients or magnetic resonance relaxation times T1 and T2 are selected that are sufficiently similar to actual patient tissues. The mimicking components are distributed within the phantom such that images of the phantom contain features similar to those of patient tissues. A breast phantom can be based on a lard/egg white combination that is shaped to approximate a human breast, or a compressed human breast as prepared for mammography. The phantoms can include lesion chambers that permit the introduction of contrast agents to simulate benign or malignant lesions, and contrast agent concentration can be time varied to produce washout curves.

Applications: Imaging of breast cancer as well as calibration and optimization of related instrumentation.

Advantages: The breast phantoms of the invention precisely mimics human breast in several of their characteristics as mentioned above. Furthermore, they can be utilized in conjunction with x-ray mammography and/or with MRI. The phantoms may therefore be used to enhance the accuracy and quality of diagnostic breast imaging, and thus avoid unnecessary procedures. In addition, wide-spread use of the breast phantoms will lead to improved standardization in the field of breast imaging.

Development Status: The methods of making the phantoms have been established. Clinical usefulness has to be established.

Inventors: Melanie Freed and Aldo Badano (FDA).

Patent Status

- U.S. Provisional Application No. 61/385,929 filed 23 Sep 2010 (HHS Reference No. E-126-2010/0-US-01), entitled "Evaluation of Breast Dynamic Contrast-enhanced Magnetic Resonance Imaging".

- U.S. Provisional Application No. 61/424,495 filed 17 Dec 2010 (HHS Reference No. E-126-2010/1-US-01), entitled "Anthropomorphic, X-ray and Dynamic Contrast-Enhanced Magnetic Resonance Imaging Phantom for Quantitative Evaluation of Breast Imaging Techniques".

Licensing Status: Available for licensing.

Licensing Contacts

- Uri Reichman, PhD, MBA; 301–435–4616; UR7a@nih.gov.
- John Stansberry, PhD; 301–435–5236; Stansbej@mail.nih.gov.

Meningococcal and Pneumococcal Conjugate Vaccine and Method of Using Same*Description of Invention:*

Pneumococcal diseases are a major public health problem all over the world. The etiological agent, *Streptococcus pneumoniae* (the pneumococcus) is surrounded by a polysaccharide capsule. Differences in the composition of this capsule permit serological differentiation between about 90 capsular types, some of which are frequently associated with pneumococcal disease, others rarely. Invasive pneumococcal infections include pneumonia, meningitis and febrile bacteremia; among the common non-invasive manifestations are otitis media, sinusitis and bronchitis. At least 1 million children die of pneumococcal disease every year, most of these being young children in developing countries. Vaccination is the only available tool to prevent pneumococcal disease. The recent development of widespread microbial resistance to essential antibiotics underlines the urgent need for more efficient pneumococcal vaccines.

Meningococcal disease is a contagious bacterial disease caused by the meningococcus (*Neisseria meningitidis*). It is spread by person-to-person contact through respiratory droplets of infected people. There are 3 main clinical forms of the disease: the meningial syndrome, the septic form and pneumonia. The onset of symptoms is sudden and death can follow within hours. In as many as 10–15% of survivors, there are persistent neurological defects, including hearing loss, speech disorders, loss of limbs, mental retardation and paralysis. Up to 5–10% of a population may be asymptomatic carriers. These carriers are crucial to the spread of the disease as most cases are acquired through exposure to asymptomatic carriers. Waning immunity among the population against a particular strain favors epidemics, as do overcrowding and climatic conditions such as dry seasons or prolonged drought and dust storms. The disease mainly affects young children, but is also common in older children and young adults. The disease occurs sporadically throughout the world with seasonal variations and accounts for a proportion of endemic bacterial meningitis. However, the highest

burden of the disease is due to the cyclic epidemics occurring in the African meningitis belt.

With the burden of *S. pneumoniae* and *N. meningitidis* infection on the public health system at a global scale, it is desirable to have a single vaccine that is effective to prevent disease resulting from the infection of both pathogens. This application claims immunogenic compositions for inducing an immune response to two different microorganisms, *S. pneumoniae* and *N. meningitidis*. The application also claims conjugate vaccines comprising at least one *N. meningitidis* capsular polysaccharide conjugated to a recombinant pneumococcal protein.

Applications: Conjugate vaccine for the prevention and/or therapy of meningococcal and pneumococcal infections.

Advantages

- Rapid production time.
- Higher-yielding manufacturing method.
- Low manufacturing cost.

Development Status: Preclinical studies have been conducted by the inventors.

Inventors

- Stanley S. Tai (Howard University).
- Che-Hung Robert Lee (FDA).

Patent Status: HHS Reference No. E–030–2010/0—

- U.S. Patent Application No. 12/425,232 filed 16 Apr 2009.
- PCT/US2010/031083 filed 14 Apr 2010.

Licensing Status: Available for licensing.

Licensing Contact: Daniel G. McCabe; Associate General Counsel for Business Transactions; Howard University, Office of the General Counsel; 2400 6th Street, NW., Suite 321; Washington, DC 20059; Office: (202) 806–2650; Fax: (202) 806–6357; E-mail: dmccabe@howard.edu.

Dated: February 16, 2011.

Richard U. Rodriguez,

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

[FR Doc. 2011–4171 Filed 2–23–11; 8:45 am]

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Terahertz Spatial Light Modulator System for Adaptive Near-Field Imaging

Description of Technology: The invention offered for licensing is in the field of imaging microscopes and relates to a terahertz light modulator system, and in particular to a terahertz spatial light modulator system for adaptive near-field imaging.

More specifically, the invention relates to a spatial light modulator system for adaptive near-field imaging having an optical source for transmitting an optical beam through a filter which is controlled to convert the optical light beam into a filtered optical light beam to define one or more transmission pathways through a photoconductive material. The system further includes a terahertz light source for transmitting a terahertz beam through one or more transmission pathways defined by the filtered optical light beam through the photoconductive material for illuminating and scanning the sample without the use of moving structural components. The device would allow micron-scale spatial resolution, would remove the need to mechanically scan a sample, and would allow automatic adjustment of image resolution and transmitted terahertz power. The near-field terahertz microscope of the invention could have a compact, fiber-coupled sensor head with no moving parts—ideal for scientific, medical, and industrial applications like crystal growth optimization, skin cancer diagnosis, and semiconductor chip inspection. In one application, such as “one-cut” surgery, the compact sensor