Krensky AM, Modlin RL. An antimicrobial activity of cytolytic T cells mediated by granulysin. Science 1998 Oct 2;282(5386):121–125. [PubMed: 9756476]

2. Krensky AM and Clayberger C. Biology and clinical relevance of granulysin. Tissue Antigens 2009 Mar;73(3):193–198. [PubMed: 19254247]

Patent Status: U.S. Provisional Application No. 61/250,601 filed 12 Oct 2009 (HHS Reference No. E–158–2009/0–US–01).

Licensing Status: Available for licensing.

Licensing Contact: Whitney Hastings, M.S.; 301–451–7337; *hastingw@mail.nih.gov.*

Collaborative Research Opportunity: The Center for Cancer Research, Laboratory of Cellular and Molecular Biology, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize this technology. Please contact John Hewes, Ph.D. at 301–435–3131 or *hewesj@mail.nih.gov* for more information.

Fully-Human Monoclonal Antibodies Against Human EphrinB2 and EphB4 for Use in the Study of Cancer Pathogenesis

Description of Invention: Ephrin receptor tyrosine kinases and their ephrin ligands have been implicated in cancer pathogenesis. Ephrin receptors and ligands affect tumor growth, invasiveness, angiogenesis, and metastasis. Ephrin signaling activities in cancer are complex and are only now beginning to be uncovered.

Researchers at the National Cancer Institute-Frederick, NIH, have developed a set of five fully-human monoclonal antibodies against human Ephrin-B2 and Ephrin type-B receptor 4 ("EphB4"). The antibodies were identified by screening a naïve human antibody phage display library against Ephrin-B2 and EphB4. These human monoclonal antibodies have high affinity and specificity for Ephrin-B2 and EphB4.

Applications:

- Research reagents for *in vitro/in vivo* investigation of Ephrin receptor and ligand interactions.
- Targeting reagents for *in vivo* imaging.
- Research reagents for protein co-crystallization.

Advantages:

- High affinity and antigen specificity.
- Bind both soluble ectodomains and cell surface-expressed molecules.

Inventors: Dimiter S. Dimitrov *et al.* (NCI).

Patent Status: HHS Reference No. E–331–2008/0 & E–331–2008/1—Research Material. Patent protection is not being pursued for this technology.

Licensing Status: Available for licensing.

Licensing Contact: Patrick P. McCue, Ph.D.; 301–435–5560; *mccuepat@mail.nih.gov.*

Collaborative Research Opportunity: The Center for Cancer Research Nanobiology Program is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize this technology. Please contact John Hewes, Ph.D. at 301–435–3131 or *hewesj@mail.nih.gov* for more information.

Dated: April 20, 2010.

Richard U. Rodriguez,

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

[FR Doc. 2010–9642 Filed 4–23–10; 8:45 am]

BILLING CODE 4140–01–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.

New Mouse Strain With Conditional Deletion of SMAD7: Analysis of Disease Processes Involving Immunological, Fibrotic or Cardiovascular Indications

Description of Invention: SMAD7 conditional knockout mice are available for licensing. SMAD7 can be knocked out by breeding with CRE-recombinase transgenic mice with a variety of promoters to yield tissue or cell type-specific deletions of SMAD7. SMAD7 has been shown to play a role in bone morphogenesis, cardiovascular tissue generation, immune regulation and fibrosis. Therefore, these mice provide a unique model to examine the role of the SMAD7 gene in disease processes that involve immunological, fibrotic, or cardiovascular components. Specifically, these mice may represent a novel model of Scleroderma, a disease with both an immunological and fibrotic component.

Applications:

- Mouse model of Scleroderma.
- Means of studying bone morphogenesis and cardiovascular tissue generation.
- Means of studying the role of SMAD7 in immune regulation.

Inventors: Marilyn Diaz (NIEHS).

Related Publication: Dong C, Zhu S, Wang T, Yoon W, Li Z, Alvarez RJ, Dijke P, White B, Wigley FM, Godschmidt-Clermont PJ. Deficient Smad7 expression: A putative molecular defect in scleroderma. Proc Natl Acad Sci USA. 2002 Mar 19;99(6):3908–3913. [PubMed: 11904440]

Patent Status: HHS Reference No. E–040–2010/0—Research Material. Patent protection is not being pursued for this technology.

Licensing Status: This technology is available as a research tool under a Biological Materials License.

Licensing Contact: Steve Standley, Ph.D.; 301–435–4074; *sstand@od.nih.gov.*

Collaborative Research Opportunity: The NIEHS is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize this technology. Please contact Dr. Elizabeth M. Denholm, *denholme@niehs.nih.gov,* for more information.

A Method of Reducing Cholesterol Biosynthesis With Specific MicroRNAs

Description of Invention: This technology is directed to the discovery of specific microRNAs that target and downregulate enzymes within the cholesterol biosynthetic pathway and is currently being tested in vivo.

Briefly, microRNAs regulate the translation of messenger RNAs (mRNAs)

into protein. The inventors have discovered a set of specific microRNAs that downregulate the expression of multiple enzymes in the cholesterol biosynthetic pathway. Importantly, this technology may provide the benefits of cholesterol lowering therapies to patients that are not suited for statin-based treatments. Statins block the cholesterol biosynthetic pathway at a single enzymatic step and may result in the deleterious build-up of a metabolic intermediate. In contrast, this technology simultaneously targets the expression of multiple enzymes required for cholesterol biosynthesis and thus may avoid the build-up of metabolic intermediates. The reduction of cholesterol biosynthesis has been indicated for improved cardiovascular health and lowers the risk for heart disease, heart attack, and stroke.

Potential Applications and Advantages:

- A method of reducing cellular cholesterol biosynthesis.
- A method of reducing systemic cholesterol in a subject.
- May be effective for patients not suited for statin-based treatment.
- Targets multiple enzymes in the cholesterol biosynthetic pathway simultaneously.

Development Status: Early stage.

Market: According to the Centers for Disease Control (CDC), approximately one in every six adults has high cholesterol and individuals with high total cholesterol have approximately twice the risk of heart disease in comparison to individuals with optimal levels.

Inventors: Kasey Vickers and Alan Remaley (NHLBI).

Publication: Vickers KC and Remaley AT. MicroRNAs in atherosclerosis and lipoprotein metabolism. Curr Opin Endocrinol Diabetes Obesity. 2010 Apr;17(2):150–155; DOI 10.1097/MED.0b013e32833727a1. [PubMed: 20150807]

Patent Status: U.S. Provisional Application No. 61/280,170 filed 30 Oct 2009 (HHS Reference No. E–142–2009/0–US–01).

Licensing Status: Available for licensing.

Licensing Contact: Fatima Sayyid, MHPM; 301–435–4521; *Fatima.Sayyid@nih.hhs.gov*.

Collaborative Research Opportunity: The National Heart, Lung and Blood Institute, Pulmonary Vascular Medicine Branch, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize microRNA regulation of the cholesterol biosynthetic pathway. Please contact Dr. Denise M. Crooks at 301–435–0103, *crooksd@nhlbi.nih.gov* for more information.

***Moraxella Catarrhalis* Lipooligosaccharide Based Conjugate Vaccines for the Prevention of Otitis Media and Respiratory Infections**

Description of Invention: Moraxella catarrhalis is one of the three leading causative agents of otitis media in children. This is due in part to the current immunizations of children with *Streptococcus pneumoniae* polysaccharide and conjugate vaccines to prevent otitis media. The proportion of otitis media caused by pneumococcal strains covered by the vaccines have decreased while those caused by *Moraxella catarrhalis* and nontypeable *Haemophilus influenzae* have significantly increased. At some point during early childhood, otitis media affects more than 80% of children under 6 years of age. Otitis media can lead to deafness and language or learning deficits. In adults, *Moraxella catarrhalis* is a major cause of bronchopneumonia and exacerbation of existing chronic obstructive pulmonary disease for chronic heavy smokers or elderly patients with chronic pulmonary disease. *Moraxella catarrhalis* infections can be treated with antimicrobial agents; however, the emergence of antibiotic resistance makes vaccines against *Moraxella catarrhalis* an attractive alternative to antimicrobial drugs. There are currently no *Moraxella catarrhalis* vaccines on the market.

The subject technologies are conjugate vaccines against *Moraxella catarrhalis.* The vaccines are comprised of isolated lipooligosaccharides (LOS) from which esterified fatty acids have been removed to produce detoxified LOS or from which lipid A has been removed to produce a detoxified oligosaccharide (OS) covalently linked to an immunogenic carrier such as tetanus toxoid, and adjuvants such as alum. The vaccines can potentially be used as a vaccine component in a combination vaccine containing other pediatric vaccine components.

Applications: Vaccines for the prevention of respiratory infections and otitis media caused by *Moraxella catarrhalis.*

Advantages:

- Novel vaccine candidates.
- LOS is a conserved antigen.

Development Status: In vitro and *in vivo* (mouse animal model) data is available and can be provided upon request.

Market:

- Pediatric vaccines.
- Preventative vaccines.

Inventors: Xin-Xing Gu (NIDCD) and John Robbins (NICHD).

Related Publications: Manuscripts in preparation, available upon request under a confidential disclosure agreement.

Patent Status:

- U.S. Patent 6,685,949 issued 03 Feb 2004 (HHS Ref. No. E–264–1997/0–US–13).
- U.S. Patent 7,641,906 issued 05 Jan 2010 (HHS Ref. No. E–217–2001/0–US–06).

Licensing Status: Available for licensing.

Licensing Contact: Kevin W. Chang, Ph.D.; 301–435–5018; *changke@mail.nih.gov*.

Collaborative Research Opportunity: The National Institute on Deafness and Other Communication Disorders, Vaccine Research Section, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize the subject technology. Please contact Brian W. Bailey, Ph.D. at 301–594–4094 or *bbailey@mail.nih.gov* for more information.

Nontypeable *Haemophilus Influenzae* Lipooligosaccharide Based Conjugate Vaccines for the Prevention of Otitis Media and Respiratory Infections

Description of Invention: Nontypeable *Haemophilus influenzae* is one of the leading causative agents of otitis media in children and accounts for 11% of pneumonia cases in children. This is due in part to the current immunizations of children with *Streptococcus pneumoniae* polysaccharide and conjugate vaccines to prevent otitis media. The proportion of otitis media caused by pneumococcal strains covered by the vaccines have decreased while those caused by nontypeable *Haemophilus influenzae* have significantly increased. At some point during early childhood, otitis media affects more than 80% of children under 6 years of age. Otitis media can lead to deafness and language or learning deficits. In adults, nontypeable *Haemophilus influenzae* causes respiratory tract infections primarily in persons with chronic obstructive pulmonary disease, one of the most common lung diseases. Exacerbation of chronic obstructive pulmonary disease in the elderly is the fourth leading cause of death in the United States. Otitis media can be treated with antibiotics; however, the emergence of antibiotic resistance makes vaccines against nontypeable *Haemophilus influenzae* an attractive alternative to those classes of drugs. The

current *Haemophilus influenzae* type b conjugate vaccines have no protective effect against nontypeable strains.

The technologies described herein are conjugate vaccines against nontypeable *Haemophilus influenzae.* The vaccines are comprised of lipooligosaccharides (LOS) from which esterified fatty acids have been removed from lipid A to form detoxified LOS conjugated to an immunogenic carrier such as tetanus toxoid, and an adjuvant such as alum. *In vivo* data in the *Chinchilla* animal model are available. The vaccines can be potentially used as a component in a combination vaccine with other pediatric vaccine components.

Applications: Vaccines for the prevention of respiratory infections and otitis media caused by nontypeable *Haemophilus influenzae.*

Advantages:

- Novel vaccine candidates.
- Conserved antigen.

Development Status: In vitro and *in vivo* data can be provided upon request. Data is also available from a phase I clinical trial with a representative vaccine showing safety and immunogenicity in adults.

Market:

- Pediatric vaccines.
- Preventative vaccines.

Inventors: Xin-xing Gu (NIDCD), John Robbins (NICHD), *et al.*

Related Publication: W Hong *et al.* Protection against nontypeable Haemophilus influenzae challenges by mucosal vaccination with a detoxified lipooligosaccharide conjugate in two chinchilla models. Microbes Infect. 2010 Jan;12(1):11–18. [PubMed: 19782149]

Patent Status:

- U.S. Patent 6,207,157 issued 27 Mar 2001 (HHS Ref. No. E–228–1995/1–US–01).
- U.S. Patent 6,607,725 issued 19 Aug 2003 (HHS Ref. No. E–228–1995/1–US–02).
- U.S. Patent 7,641,906 issued 05 Jan 2010 (HHS Ref. No. E–217–2001/0–US–06).

Licensing Status: Available for licensing.

Licensing Contact: Kevin W. Chang, Ph.D.; 301–435–5018; *changke@mail.nih.gov*.

Collaborative Research Opportunity: The National Institute on Deafness and Other Communication Disorders, Vaccine Research Section, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize the subject technology. Please contact Brian W. Bailey, Ph.D. at 301–594–4094 or *bbailey@mail.nih.gov* for more information.

Dated: April 20, 2010.

Richard U. Rodriguez,

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

[FR Doc. 2010–9641 Filed 4–23–10; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Cancer Institute; 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: National Cancer Institute Special Emphasis Panel, T32 Review.

Date: May 11, 2010.

Time: 5 p.m. to 6 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Crystal City, 2399 Jefferson Davis Hwy, Arlington, VA 22202.

Contact Person: Robert Bird, PhD, Chief, Resources and Training Review Branch, Division of Extramural Activities, National Cancer Institute, 6116 Executive Boulevard, Room 8113, Bethesda, MD 20892–8328, 301–496–7978, *birdr@mail.nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel, Epidemiology, Prevention, Control and Population Sciences.

Date: May 26–27, 2010.

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

Agenda: To review and evaluate grant applications.

Place: Hilton Washington DC/Rockville, Rockville, MD 20852.

Contact Person: Wlodek Lopaczynski, M.D., PhD, Scientific Review Officer, Research Programs Review Branch, Division of Extramural Activities, National Cancer Institute, 6116 Executive Blvd., Room 8131, Bethesda, MD 20892, 301–594–1402, *lopacw@mail.nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel, Cellular & Tissue Biology P01.

Date: May 26–28, 2010.

Time: 5 p.m. to 5 p.m.

Agenda: To review and evaluate grant applications.

Place: Bethesda North Marriott Hotel & Conference Center, 5701 Marinelli Road, Bethesda, MD 20852.

Contact Person: Shakeel Ahmad, PhD, Scientific Review Officer, Research Programs Review Branch, Division of Extramural Activities, National Cancer Institute, NIH, 6116 Executive Boulevard, Room 8139, Bethesda, MD 20892–8328, (301) 594–0114, *ahmads@mail.nih.gov.*

Name of Committee: National Cancer Institute Special Emphasis Panel, State and Community Tobacco Control Policy and Media Research.

Date: May 26–27, 2010.

Time: 7 p.m. to 5 p.m.

Agenda: To review and evaluate grant applications.

Place: Legacy Hotel and Conference Center, 1775 Rockville Pike, Rockville, MD 20852.

Contact Person: Gerald G. Lovinger, PhD, Scientific Review Officer, Special Review and Logistics Branch, Division of Extramural Activities, National Cancer Institute, 6116 Executive Blvd., Room 8101, Bethesda, MD 20892–8329, 301/496–7987, *lovingeg@mail.nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.392, Cancer Construction; 93.393, Cancer Cause and Prevention Research; 93.394, Cancer Detection and Diagnosis Research; 93.395, Cancer Treatment Research; 93.396, Cancer Biology Research; 93.397, Cancer Centers Support; 93.398, Cancer Research Manpower; 93.399, Cancer Control, National Institutes of Health, HHS)

Dated: April 20, 2010.

Jennifer Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 2010–9636 Filed 4–23–10; 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 Closed Meeting

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 meeting.

The meeting 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 application, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.