Genetics and Visual Function Branch, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize the use of nitisine (NTBC) for ocularutaneous albinism or as a treatment for increasing pigmentation in the eyes, hair and/or skin of patients. Please contact Alan Hubbs, PhD at 301–594–4263 or hubbsa@mail.nih.gov for more information.

**Modulators of Survival Motor Neuron Production**

**Description of Invention:** This technology discloses compounds that modulate the amount of Survival Motor Neuron protein (SMN). Low levels of SMN protein are associated with Spinal Muscular Atrophy (SMA), which constitutes a group of inherited diseases that cause progressive muscle degeneration leading to death. Consequently, therapeutic inventions have focused on increasing SMN protein levels. This invention discloses novel arylthiazolyl piperidines which are shown to be modulators of SMN production. This invention also discloses methods of treating SMA by administering SMN protein modulators.

**Applications:** Therapeutic developments for Spinal Muscular Atrophy.

**Advantages:** Small molecule (series of analogs can be derived in search of improved performance).

**Development Status:**
- Pre-clinical; no animal data.
- In vitro data available.

**Market:** Muscular dystrophy.

**Inventors:** Juan Jose Marugan (NHGRI–NCGC); Wei Zheng (NHGRI–NCGC); Noel Southall (NHGRI–NCGC); Jingbo Xiao (NHGRI–NCGC); Steve Titus (NHGRI–NCGC); Elliot Androphy (University of Massachusetts Medical School); Jonathan Cherry (University of Massachusetts Medical School).


**Licensing Status:** Available for licensing.

**Licensing Contact:** Steven H. Standley, PhD; 301–435–4074; sstand@mail.nih.gov.

**Collaborative Research Opportunity:** The NIH Chemical Genomics Center (NCGC), National Human Genome Research Institute, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize these SMN modulator compounds. Please contact Dr. Juan Marugan at maruganj@mail.nih.gov for more information.

**Use of Sterculic Acid To Treat Choroidal Neovascularization**

**Description of Invention:** Sterculic acid is a naturally occurring cyclopentene acid present in kapok seed oil, cottonseed oil, and in the seeds of the Sterculia foetida tree. Sterculic acid has been reported to be a non-specific inhibitor of steroyl-Co desaturase (SCD), which has been implicated in several disease states, including cardiovascular disease, obesity, non-insulin-dependent diabetes mellitus, skin disease, hypertension, neurological diseases, immune disorders and cancer (Ntambi JM, J. Lipid Res., 1999, 40(9):1549–1558). NIH investigators have recently discovered that sterulic acid inhibits the neovascularization of the chick chorioallantoic membrane demonstrating that this compound exhibits a potent anti-angiogenic activity. Further, the NIH investigators have shown that sterulic acid inhibits the formation of choroidal neovascularization in the retina of laser treated rats. These results suggest that sterculic acid possesses anti-angiogenic effect likely through regulating genes involved in the angiogenic process.

The present invention is directed to methods of using sterculic acid for the treatment of inflammation, in particular, 7-ketocholesterol mediated inflammation, 7-ketocholesterol cytotoxicity, or unregulated angiogenesis. Diseases mediated by 7-ketocholesterol-induced inflammation and 7-ketocholesterol cytotoxicity include atherosclerosis age-related macular degeneration, and Alzheimer's disease. Diseases mediated by unregulated angiogenesis include certain cancers and age-related macular degeneration. Also disclosed are methods of treating atherosclerosis or Alzheimer’s disease using sterculic acid.

**Applications:** Therapeutics for inflammation, in particular, atherosclerosis, age-related macular degeneration, and Alzheimer’s disease.

**Development Status:** Early stage in vitro and animal model data.

**Inventors:** Ignacio R. Rodriguez et al. (NEI).


**Licensing Status:** Available for licensing.

**Licensing Contact:** Suryanarayana Vepa, PhD, J.D.; 301–435–5020; vepas@mail.nih.gov.

**Collaborative Research Opportunity:** The National Eye Institute (NEI), Laboratory of Retinal Cell and Molecular Biology, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize sterculic acid, and its derivatives for the treatment of diseases related to angiogenesis or mediated by 7-ketocholesterol-induced inflammation. Please contact David L. Whitmer, Technology Development Coordinator, NEI, at 301–496–4876 or whitmerd@mail.nih.gov for more information.

**Dated:** December 8, 2010.

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

**BILLY 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.

**Software System for Quantitative Assessment of Vasculature in Three Dimensional Images**

**Description of Invention:** This invention offered for licensing and further development is a software system that provides the capability of
efficiently extracting, visualizing and quantifying three dimensional vascular networks from medical and basic research images. Deregulation of angiogenesis plays a major role in a number of human diseases, most notably cancer. A substantial increase in the research effort in this field over the past decade has deepened the understanding of the angiogenic process. However, the lack of methods and software to quantitatively assess vasculature in patients has considerably hampered the ability to directly study the angiogenesis process, as well as to discover and develop new therapeutics to modulate angiogenesis. The present invention provides new semi-automated computer algorithms, statistical methods and user friendly visualization tools for rapid and intuitive quantitative evaluation of vasculature in three dimensional data sets obtained through non-invasive imaging techniques such as MRI, CT–Scans, confocal microscopy, microCT, etc. The methods and software embodied in this invention provide a three dimensional quantitative capability in the clinic as a vascular diagnostic tool and in basic research projects to evaluate changes in vascular network systems.

Applications:
- Medical research for studying angiogenesis and tumor vasculature.
- Potential applications in clinical studies and diagnostics.
- Discovery and development of antiangiogenesis agents with application to cancer.
- Possible application to diseases other than cancer, such as those related to the lymphatic system, the pulmonary artery, the kidney filtration system.

Development Status:
- The invention is fully developed.
- The software will be readily available if so requested.

Inventors: Enrique Zudaire, Christopher Kurcz, Yanling Liu (NCI).

Available for Licensing.

Technology Summary: The invention offered for licensing relates to therapeutic compounds and related pharmaceutical compositions that can be used in the prevention and treatment of malaria infection. More specifically, the invention is drawn to compounds that can kill malaria gametocytes to block malaria transmission and treat malaria infection in the non-erythrocytic stages, as well as therapeutic uses of these molecules to prevent or slow the transmission of Plasmodium organisms between mammals and eliminate or prevent infection in mammals.

Furthermore, the compounds of the invention are tricyclic compounds where the side rings may be 5–7 membered rings (preferably 6-membered), and the center ring may be 6–8 membered ring (preferably 7-membered). Also preferable structures are ones in which the side rings are aryl rings while the center ring is cycloalkyl ring. The compounds of the invention have been identified by integrating quantitative high-throughput screening (qHTS) with genetic mapping and in vivo oocyst formation assay.

Applications: Prevention and treatment of malaria infections.

Inventors: Xin-zhuan Su and Jing Yuan (NIAD).


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 Universal Antigen Delivery Platform for Enhanced Immune Response

Description of Invention: The present invention relates to use of the rotavirus NSP2 octamer as a universal antigen delivery platform for presenting a high density of neutralizing epitopes to the immune system, a strategy for boosting antigen immunogenicity. This application is advanced by the well-defined structural and biochemical properties of the octamer, its high stability at a broad range of pH, temperature and ionic stability, and its ease of purification (one step) under non-denaturing conditions. Long conformationally-dependent antigens are readily mounted onto the platform by fusion to the C-terminus of NSP2, a region of the NSP2 protein positioned on the exposed surface of the octamer. The platform can be expressed in and purified from prokaryotic and eukaryotic systems.

This technology can be used for rapid production of subunit vaccines against a wide range of infectious agents. Additional uses of the technology include the generation of delivery platforms with mounted short peptide antigens for use in cancer immunotherapy, production of specific antibodies to conformationally and nonconformationally-dependent antigens for research purposes, and development of epitope targets and short peptide-antigen presentation platforms for diagnostic assays.

Applications:
- Vaccines against pathogens.
- Cancer vaccines.
- Antigen-specific antiserum.
- Multivalent targets in diagnostic assays.

Advantages:
- Octameric platform is stable, efficiently expressed, and easily purified by a single step method.
- Enables the display of multivalent conformation-dependent epitopes.
- Effective platform for short peptides as well as long polypeptides.

Development Status: Proof-of-concept experiments have shown that the octamer mounted with short peptides or long multivalent polypeptides retains its structural and biochemical features and is highly effective in presenting foreign antigens to the immune system. Ease of purification and final protein yields of the short or long peptide antigen-mounted NSP2 octamers were comparable suggesting that the platform accommodates a large range of antigen sizes. The NSP2-platform also served as an adjuvant, significantly enhancing immunity of the mounted peptide.

Inventors: John T. Patton (NIAD); Zionba F. Taraporewala (NIAD).

Relevant Publications:
DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute on Aging; 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 contract proposals and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the contract proposals, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute on Aging Special Emphasis Panel; Sardinia

Date: January 19, 2011.

Time: 3 p.m. to 6 p.m.

Agenda: To review and evaluate contract proposals.

Place: National Institute on Aging, Gateway Building, 7201 Wisconsin Avenue, Suite 2C212, Bethesda, MD 20892, (Telephone Conference Call)

Contact Person: Jeannette L. Johnson, PhD, Scientific Review Officer, National Institutes of Health, 7201 Wisconsin Avenue, Gateway Building, 3C212, Bethesda, MD 20814, 301–402–7701, johnsonjl@nih.gov.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute on Aging; Notice of Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of a meeting of the National Advisory Council on Aging.

The meeting will be open to the public as indicated below, 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.

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 applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute on Aging Special Emphasis Panel; Development and Maintenance of an Aged Rodent Tissue Bank

Date: January 27, 2011.

Time: 1:30 p.m. to 2:30 p.m.

Agenda: To review and evaluate contract proposals.

Place: National Institute on Aging, Gateway Building, 7201 Wisconsin Avenue, Suite 2C212, Bethesda, MD 20892, (Telephone Conference Call)

Contact Person: Bita Nakhai, PhD, Scientific Review Officer, National Institutes of Health, Gateway Building, 2C212, 7201 Wisconsin Avenue, Bethesda, MD 20814, 301–402–7701, nakhaiB@nia.nih.gov.