

information collection that has been extended, revised, or implemented on or after October 1, 1995 unless it displays a currently valid OMB control number.

Proposed Collection

Title: Recruitment and Screening for the Insight into Determination of Exceptional Aging and Longevity (IDEAL) Study. *Type of Information Collection Request:* NEW. *Need and Use of Information Collection:* The purpose of the project is to conduct recruitment and screening for the IDEAL Study. A multifaceted recruitment approach will be used to reach the target audience in a wide variety of ways. Those who are interested in participating in the IDEAL study will be asked to complete a two

stage recruitment process consisting of a telephone interview and a physical exam. The Stage One interview consists of questions concerning demographics, physical ability, health status, and medical conditions. Those who are eligible after completing the telephone interview will be asked to complete the second stage of the screening process. The physical examination is a modified version of the full BLSA assessment protocol consisting of the following components: General appearance; vital signs; chest and heart auscultation; sensory systems including vision, hearing, sensory proprioception, neuropathy and balance; and movement and strength of the upper and lower extremities. In addition the potential

participant will also be asked to complete physical performance tests, cognitive exams, an electrocardiogram and a blood draw. *Frequency of Response:* Once. *Affected Public:* Individuals or households. *Type of Respondents:* Healthy individuals who are at least 80 years of age. The annual reporting burden is as follows: *Estimated Number of Respondents:* 1,500; *Estimated Number of Responses per Respondent:* 1; *Average Burden Hours per Response:* 0.833; and *Estimated Total Annual Burden Hours Requested:* 701. There is no annualized cost to respondents. There are no Capital costs to report. There are no Operating or Maintenance Costs to report.

Type of respondent	Number of respondents	Frequency of response	Average time per response	Annual hour burden
Individuals who complete the phone interview	1,500	1	0.167	251
Individuals who complete the physical exam	*300	1	1.5	450
Totals	1,500	701

*These individuals are included in the 1,500 above.

Request for Comments: Written comments and/or suggestions from the public and affected agencies are invited on one or more of the following points: (1) Whether the proposed collection of information is necessary for the proper performance of the function of the agency, including whether the information will have practical utility; (2) The accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (3) Ways to enhance the quality, utility, and clarity of the information to be collected; and (4) Ways to minimize the burden of the collection of information on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Direct Comments to OMB: Written comments and/or suggestions regarding the item(s) contained in the notice, especially regarding the estimated public burden and associated response time should be directed to the: Office of Management and Budget, Office of Regulatory Affairs, *OIRA submission@omb.eop.gov* or by fax to 202-395-6974. Attention: Desk Officer for NIH. To request more information on the proposed project or obtain a copy of the data collection plans and instruments, contact Dr. Luigi Ferrucci, Principal Investigator, NIA Clinical Research Branch, Harbor Hospital, 5th

Floor, 3001 S. Hanover, Baltimore, MD 21225, or call this non-toll-free number (410) 350-3936 or E-mail your request including your address to: *Ferruccilu@grc.nia.nih.gov*.

Comments Due Date: Comments regarding this information collection are best assured of having their full effect if received within 30-days of the date of this publication.

Dated: December 6, 2010.
Melissa Fraczkowski,
Project Clearance Liaison, NIA.
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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.

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 anti-angiogenesis agents with application to cancer.
- Possible application to diseases other than cancer, such as those related to the lymphatic system, the pulmonary airway, 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).

Patent Status: HHS Reference No. E-261-2010/0—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.

Compounds That Treat Malaria and Prevent Malaria Transmission

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 mammal. 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 (NIAID).

Patent Status: International Patent Application No. PCT/US2010/047019 filed August 27, 2010. Priority Application 61/237,417 filed August 27, 2009. (HHS Reference No. E-283-2009).

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 antisera 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 antisera.
- 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 biophysical 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 (NIAID); Zenobia F. Taraporewala (NIAID).

Relevant Publications:

1. P Schuck *et al.* Rotavirus nonstructural protein NSP2 self-assembles into octamers that undergo ligand-induced conformational changes. *J Biol Chem.* 2001 Mar 30;276(13):9679-9687. [PubMed: 11121414].
2. H Jayaram *et al.* Rotavirus protein involved in genome replication and packaging exhibits a HIT-like fold. *Nature.* 2002 May 16;417(6886):311-315. [PubMed: 12015608].
3. Z Taraporewala *et al.* Rotavirus NSP2 octamer as an epitope-mounting platform. Abstract, 23rd Annual Meeting of the American Society for Virology, 2004.
4. K Kearney *et al.* Cell-line-induced mutation of the rotavirus genome alters expression of an IRF3-interacting protein. *EMBO J.* 2004 Oct 13;23(20):4072-4081. [PubMed: 15372078].

Patent Status: U.S. Patent Application No. 11/293,654 filed 02 Dec 2005 (HHS Reference No. E-322-2004/0-US-02).

Licensing Status: Available for licensing.

Licensing Contact: Kevin W. Chang, PhD; 301-435-5018; changke@mail.nih.gov.

Dated: December 1, 2010.

Richard U. Rodriguez,

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

[FR Doc. 2010-30640 Filed 12-13-10; 8:45 am]

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