active duty service obligation prescribed under section 338A of the Public Health Service Act (42 U.S.C. 254l) by a program specified in options (1)–(4) above that:

(i) Is located on the reservation of the Tribe in which the recipient is enrolled; or

(ii) Serves the Tribe in which the recipient is enrolled.

In summary, all recipients of the Indian Health Scholarship (Health Professions) are reminded that recipients of this scholarship incur a service obligation. Moreover, this obligation shall be served at a facility determined by the Director, IHS, consistent with IHCIA, Pub. L. 94–437, as amended by Public Law 100–713, and Public Law 102–573.

3. Reporting

Scholarship Program Minimum Academic Requirements

It is the policy of the IHS that a scholarship recipient awarded under the Health Professions Scholarship Program of the Indian Health Care Improvement Act maintain a 2.0 cumulative grade point average (GPA) each semester/quarter and be a full-time student (minimum of 12 credit hours considered by your school as full-time). A recipient of a scholarship under the Health Professions Pre-Graduate and Health Professions Preparatory Scholarship authority must maintain a good academic standing each semester/quarter and be a full time student (minimum of 12 credit hours or the number of credit hours considered by your school as full-time). In addition to the two requirements stated above, a Health Professions Scholarship program grantee must be enrolled in an approved/accredited school for a health professions degree. Part-time students for the three scholarship programs must also maintain a 2.0 cumulative GPA and must take at least 6 credit hours each semester/quarter but less than the number of hours considered full-time by your school. Scholarship grantees must be approved for part-time status at the time of scholarship award. Scholarship grantees may not change from part-time status to full-time status or vice versa in the same academic year.

The following reports must be sent to the IHS Scholarship Program at the identified time frame. Each scholarship grantee will be provided with an IHS Scholarship Handbook where the below needed reports are located. If a scholarship grantee fails to submit these reports as required, they will be ineligible for continuation of scholarship support and scholarship award payments will be discontinued.

A. Recipient's Enrollment and Initial Progress Report

Within thirty (30) days from the beginning of each semester or quarter, scholarship grantees must submit a Recipient's Enrollment and Initial Progress Report (Form F–02 of the student handbook).

B. Transcripts

Within thirty (30) days from the end of each academic period, i.e., semester, quarter, or summer session, scholarship grantees must submit an Official Transcript showing the results of the classes taken during that period.

C. Notification of Academic Problem/Change

If at any time during the semester/quarter, scholarship grantees are advised to reduce the number of credit hours for which they are enrolled below the minimum of 12 (or the number of hours considered by their school as full time) for a full-time student or at least 6 hours for part-time students; or if they experience academic problems, they must submit this report (page F–04 of student handbook).

D. Change of Status

- Change of Academic Status.

Scholarship Grantees must immediately notify the IHS Area Coordinator if they are placed on academic probation, dismissed from school, or voluntarily withdraw for any reason (personal or medical).

- Change of Health Discipline.

Scholarship Grantees may not change from the approved IHS Scholarship Program health discipline during the school year. If an unapproved change is made, scholarship payments will be discontinued.

- Change in Graduation Date.

Any time that a change occurs in a scholarship grantee's expected graduation date, they must notify their IHS Area Coordinator immediately in writing. Justification must be attached from the school advisor.

VII. Agency Contacts

Please address application inquiries to the appropriate IHS Area Coordinator. Other programmatic inquiries may be addressed to Ms. Patricia Lee McCoy, Director, Division of Health Professions Support, Indian Health Service, 801 Thompson Avenue, Suite 120, Rockville, Maryland 20852; Telephone (301) 443–6197. (This is not a toll free number.) For grants information, contact the Grants Scholarship Coordinator, Division of Grants Operations, Indian Health Service, 801 Thompson Avenue, Suite 120, Rockville, Maryland 20852; Telephone (301) 443–0243. (This is not a toll-free number).

VIII. Other Information

The Public Health Service (PHS) is committed to achieving the health promotion and disease prevention objectives of *Healthy People 2010*, a PHS-led activity for setting priority areas. This program announcement is related to the priority area of Education and Community-Based Programs. Potential applicants may obtain a copy of *Healthy People 2010*, (Full Report; Stock No. 017–001–00474–0) or Healthy People 2010 (Summary Report; Stock No. 017–001–00473–1) through the Superintendent of Documents, Government Printing Office, Washington, DC 20402–9325 [Telephone (202) 783–3238].

Interested individuals are reminded that the list of eligible health and allied health professions is effective for applicants for the 2007–2008 academic year. These priorities will remain in effect until superseded. Applicants for health and allied health professions not on the above priority list will be considered pending the availability of funds and dependent upon the availability of qualified applicants in the priority areas.

Dated: December 4, 2006.

Robert G. McSwain,

Deputy Director, Indian Health Service.

[FR Doc. E6–21026 Filed 12–11–06; 8:45 am]

BILLING CODE 4165–16–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.

Erythroid Progenitor Cells and Methods for Producing Parvovirus B19 Therein

Description of Technology: The present technology offers novel methods of cell culture for production of human parvovirus B19 (B19). B19, a common infection of children adults, is the cause of fifth disease. Symptoms of B19 infection are usually mild in otherwise healthy individuals, but some adults can suffer chronic arthopathy. Severe health conditions and mortality may result from B19 infection of immunocompromised individuals and patients with chronic hemolytic anemia such as sickle cell disease. In addition, B19 infection during pregnancy may cause hydrops fetalis and fetal death. There is no specific antiviral drug for B19, and some forms of chronic infection are difficult to diagnose. Vaccination is an effective strategy for other animal parvoviruses and is feasible for B19 in humans.

B19 selectively infects erythroid progenitor cells of bone marrow, fetal liver and a small number of specialized cell lines. These specific cell lines demonstrate limited infectability and commonly produce little or no virus following initial inoculation with B19. Current methods for producing infectious B19 require phlebotomy of infrequently available infected donors.

The available technology describes a method of producing pure populations of human erythroid progenitor cells that are fully permissive to B19 infection. This discovery uses CD34+ hematopoietic stem cells present in peripheral blood to supply erythroid progenitor cells, which demonstrate a significant increase in viral production after initial inoculation. The ability to efficiently generate significant amounts of infectious B19V in cells is useful for the development of killed or attenuated vaccines, therapeutics and efficient diagnostic tools for prevention and treatment of B19V. Furthermore, this technology would allow development of new diagnostic assays, which use the entire virus as the antigenic target, thus providing more sensitive and accurate results than current diagnostic tools, which rely on antibodies against a single viral protein.

Applications: (1) Diagnosis of human parvovirus B19; (2) Vaccination of individuals at risk for severe effects of parvovirus infection; (3) Research and development of anti-parvovirus agents.

Development Status: Preclinical data is available at this time.

Inventors: Susan Wong and Neal Young (NHLBI).

Related Publications: 1. MC Giarratana, L Kobari, H Lapillonne, D Chalmers, L Kiger, T Cynober, MC Marden, H Wajcman, L Douay. Ex vivo generation of fully mature human red blood cells from hematopoietic stem cells. Nat Biotechnol. 2005 Jan; 23(1):69–74.

2. JM Freyssinier, C Lecoq-Lafon, S Amsellem, F Picard, R Ducrocq, P Mayeux, C Lacombe, S Fichelson. Purification, amplification and characterization of a population of human erythroid progenitors. Br J Haematol. 1999 Sep; 106(4):912–922.

Patent Status: U.S. Provisional Application No. 60/808,904 filed 26 May 2006 (HHS Reference No. E–188–2006/0–US–01).

Licensing Status: Available for non-exclusive or exclusive licensing and commercial development.

Licensing Contact: Chekesha S. Clingman, Ph.D.; 301/435–5018; *clingmac@mail.nih.gov.*

Collaborative Research Opportunity: The NHLBI Hematology Branch is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize novel methods to produce parvovirus B19 and use as diagnostic or vaccine. Please contact Dr. Neal Young at 301–496–5093, *YoungNS@mail.nih.gov* for more information.

Small Molecules for Imaging Protein-Protein Interactions

Description of Technology: Imaging techniques like positron emission tomography and photon emission computerized tomography are often used with imaging agents to detect the presence and accumulation of amyloid plaques within the human brain. These imaging agents have high specificity for beta amyloid peptides, and administration of such agents aids in the early detection of amyloid plaques in brains of Alzheimer's victims. However, currently available imaging agents have limited success for detecting pre-plaque beta amyloid proteins because they are small and reside within the tissue for a short period of time. Therefore, new imaging agents are needed for enhanced identification of amyloid deposits.

Available for licensing and commercial development are small molecules for imaging protein-protein interactions in Alzheimer's disease. This technology describes a bifunctional molecule with high specificity for beta amyloid proteins that is applicable for in vivo imaging. The molecule contains two moieties with different binding affinities, one moiety has an affinity for amyloid beta proteins, and the other moiety has an affinity for a tissue-specific chaperone. The different moieties of the subject invention are conjoined by an inert linkage group, typically comprised of a hydrocarbon chain, peptide, or carbohydrate. The subject invention is affixed with a label, such as a fluorophore or radioisotope, which adheres to the binding site of the beta amyloid protein, the chaperone, or the linkage group. The choice of label makes the subject invention versatile and employable in several types of imaging modalities such as single photon emission computed tomography (SPECT), positron emission tomography (PET), magnetic resonance imaging (MRI), and computerized tomography (CT) scans.

Applications: (1) Applicable for identification of beta amyloid plaques in patients with or at risk for Alzheimer's disease and pre-plaque amyloid beta proteins; (2) Applicable for in vivo imaging protein-protein interactions using small molecules; (3) Applicable for image guided therapy of Alzheimer's disease.

Market: (1) Alzheimer's disease affects approximately 4.5 million people within the United States; (2) The direct and indirect annual costs associated with Alzheimer's disease are at least $100 billion.

Development Status: Pre-clinical data is available.

Inventors: King C. Li and S. Narasimhan Danthi (CC).

Patent Status: U.S. Provisional Application No. 60/815,740 filed 21 Jun 2006 (HHS Reference No. E–046–2006/0–US–01).

Licensing Status: Available for exclusive or non-exclusive licensing.

Licensing Contact: Chekesha S. Clingman , Ph.D.; 301–435–5018; *clingmac@mail.nih.gov.*

Collaborative Research Opportunity: The National Institutes of Health Clinical Center, Laboratory of Diagnostic Radiology Research, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize Small Molecules for Imaging Protein-Protein Interactions. Please contact Betty Tong, Ph.D. at 301–594–4263 for more information.

Methods and Systems for Identifying and Classifying Drug Targets

Description of Technology: Available for licensing and commercial development is a novel method for a-priori evaluation of the therapeutic relevance of gene products for various diseases, in order to make drug development more cost-efficient. In addition, this technology may be used to identify novel therapeutic uses for known drugs. For example, the current invention has the potential to uncover the role of an established cancer drug target, in an alternative disorder such as Alzheimer's disease, thus providing an additional use for the available cancer drug.

The multivariable model used by the method, which is based on a training set of targets that have already passed FDA review, is capable of ranking drug targets in terms of prospective clinical success. This innovative approach integrates multiple datasets that describe each single gene product from a broad range of analyses, such as microarrays, x-ray crystallography, and phylogenetics, to rapidly characterize a proteins structure, function, and gene regulation information. An algorithm subsequently scores a protein's potential as a drug target for use in future drug design studies. The resulting set of targets is enriched 28-fold as compared to randomly selected gene products.

Applications: (1) Early evaluation of a candidate drug target's potential to yield a therapeutic effect, given the target's inhibitor is provided; (2) Efficient discovery of novel drugs and drug targets; (3) Classification of genes according to their involvement in specific diseases.

Development Status: The technology is ready to be used in drug discovery and development.

Inventors: Anatoly L. Mayburd (NCI), James L. Mulshine (NCI), et al.

Patent Status: U.S. Provisional Application No. 60/788,522 filed 31 Mar 2006 (HHS Reference No. E–268–2005/0–US–01).

Licensing Status: Available for non-exclusive or exclusive licensing.

Licensing Contact: Cristina Thalhammer-Reyero, Ph.D., M.B.A.; 301–435–4507; *thalhamc@mail.nih.gov.*

Systems and Methods for Intelligent Quality Control of Instruments and Processes

Description of Technology: Available for licensing and commercial development is a cost-effective system and method for evaluation of instruments and processes for real-time detection of error. The subject invention includes the capacity to identify imprecision in a variety of data analysis tools, which may be susceptible to malfunction. Such processes include instrumental analysis of patient specimens, assembly line manufacturing and general plant or factory operation. This system provides an automated platform for the dual purpose of (1) monitoring data to detect unusual events in real time and (2) enhancement of human and machine recognition and analysis of improper occurrences based on time-varying patterns of measured values.

The scheme of the current system is straightforward and in general the method involves the following steps: (1) Collection of data elements from an instrument or process (2) counting data elements having values within predetermined intervals of the data range (3) applying counts of data to a neural network that monitors data trends and (4) production of an output based on the neural network, which demonstrates whether the instrument or process is generating results within an appropriate range. This system is advantageous because output is generated in real time and thus available without delay for immediate correction of malfunctions.

Applications: (1) Quality control for processes and instruments; (2) Automated system for real time notification of malfunctions in an instrument or process for immediate correction of the procedure.

Development Status: The technology is fully developed.

Inventors: James M. Deleo (CIT) and Alan T. Remaley (CC).

Patent Status: U.S. Patent No. 6,556,951 issued 29 Apr 2003 (HHS Reference No. E–042–1997/0–US–03).

Licensing Status: Available for non-exclusive and exclusive licensing.

Licensing Contact: Cristina Thalhammer-Reyero, Ph.D., M.B.A.; 301–435–4507; *thalhamc@mail.nih.gov.*

Collaborative Research Opportunity: The National Institutes of Health Clinical Center, Radiologic and Imaging Sciences, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize Intelligent Quality Control of Instruments. Please contact Elaine Ayres at 301/594–3019 for more information.

Sample Delivery System With Laminar Mixing for Microvolume Biosensing

Description of Invention: The invention is a sample delivery system with at least two microchannels connected to a sample chamber containing a biosensor. Biosensing for studying molecular recognition has become an important biophysical tool for biomedical research. The system aspirates a small sample volume into the microfluidic channels and applies a periodic oscillatory flow pattern to the sample. This prevents sample depletion in the stagnant layer across the sensor surface and results in efficient mixing of the sample during the biosensor measurement. Because the oscillatory flow pattern does not produce a net transport of the sample with time, there is a very long incubation time of the sensor surfaces with a very small sample volume. The new sample delivery system uses sample volumes of only 3 to 8 microliters, compared to the 25 to 200 microliter volumes of conventional systems, which use cuvette principles or continuous flow microfluidics. The present invention is substantially better than existing systems with respect to biosensor contact time and required sample volume.

Application: Sample delivery for biosensing.

Development Status: A prototype of the technology is currently being implemented in inventor's lab and technology is ready for commercialization.

Inventor: Peter Schuck (ORS).

Publication: M Abrantes, MT Magone, LF Boyd, P Schuck. Adaptation of a surface plasmon resonance biosensor with microfluidics for use with small sample volumes and long contact times. Anal Chem. 2001 Jul 1;73(13):2828–2835.

Patent Status: U.S. Patent Application No. 10/415,909 filed 05 May 2003, claiming priority to 06 Nov 2000 (HHS Reference No. E–143–2000/0–US–03); European Patent Application No. 01990651.0 filed 11 Jun 2001 (HHS Reference No. E–143–2000/0–EP–04).

Licensing Status: Available for non-exclusive or exclusive licensing.

Licensing Contact: Michael A. Shmilovich, Esq.; 301/435–5019; *shmilovm@mail.nih.gov.*

Collaborative Research Opportunity: The NIH Office of Research Services, Division of Bioengineering and Physical Science, Protein Biophysics Resource, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize this Sample Delivery System technology. Please contact Dr. Peter Schuck at 301–435–1950 or *pschuck@helix.nih.gov* for more information.

Vaccine for Dengue Virus

Description of Technology: The claimed invention relates to viable chimeric dengue viruses or their derived recombinant mutants for use as vaccines against dengue and other flavivirus diseases, including tick-borne encephalitis and West Nile encephalitis. Dengue is a mosquito-transmitted viral disease which occurs in tropical and subtropical regions throughout the world. Inactivated whole dengue virus vaccines have been shown to be insufficiently immunogenic and live dengue virus vaccines prepared by serial passage in cell culture have not been shown to be consistently attenuated. A dengue vaccine is still not available. The present invention represents a technical breakthrough, which provides new approaches to dengue vaccines by construction of chimeric dengue viruses of all four serotypes and strategic modification to produce attenuated virus strains. Several fields of use remain available for licensing.

Applications: Prevention of dengue outbreaks, severe and fatal dengue caused by dengue viruses, a major public health problem in tropical and subtropical regions.

Inventors: Ching-juh Lai, et al. (NIAID).

Patent Status: U.S. Patent 6,184,024 issued 06 Feb 2001 (HHS Reference No. E–171–1988/1–US–02); U.S. Patent 6,676,926 issued 13 Jan 2004 (HHS Reference No. E–171–1988/1–US–03).

Licensing Status: Available for non-exclusive licensing.

Licensing Contact: Peter A. Soukas, J.D.; 301–435–4646; *soukasp@mail.nih.gov.*

Murine Monoclonal Antibodies Effective To Treat Respiratory Syncytial Virus

Description of Technology: Available for licensing through a Biological Materials License Agreement are the murine MAbs described in Beeler et al, ''Neutralization epitopes of the F glycoprotein of respiratory syncytial virus: effect of mutation upon fusion function,'' J Virol. 1989 Jul;63(7):2941–2950. The MAbs that are available for licensing are the following: 1129, 1153, 1142, 1200, 1214, 1237, 1112, 1269, and 1243. One of these MAbs, 1129, is the basis for a humanized murine MAb (see U.S. Patent 5,824,307 to humanized 1129 owned by MedImmune, Inc.), recently approved for marketing in the United States. MAbs in the panel reported by Beeler et al. have been shown to be effective therapeutically when administered into the lungs of cotton rats by small-particle aerosol. Among these MAbs several exhibited a high affinity (approximately 109M–1) for the RSV F glycoprotein and are directed at epitopes encompassing amino acid 262, 272, 275, 276 or 389. These epitopes are separate, nonoverlapping and distinct from the epitope recognized by the human Fab of U.S. Patent 5,762,905 owned by The Scripps Research Institute.

Applications: Research and drug development for treatment of respiratory syncytial virus.

Inventors: Robert M. Chanock, Brian R. Murphy, Judith A. Beeler, and Kathleen L. van Wyke Coelingh (NIAID).

Patent Status: HHS Reference No. B–056–1994/1—Research Tool.

Licensing Status: Available for non-exclusive licensing under a Biological Materials License Agreement.

Licensing Contact: Peter A. Soukas, J.D.; 301/435–4646; *soukasp@mail.nih.gov.*

Dated: December 1, 2006.

Steven M. Ferguson,

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

[FR Doc. E6–21028 Filed 12–11–06; 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.

Noncovalent HIV Env-CD4 Complexes as HIV Vaccines

Description of Technology: HIV vaccine technology based on HIV envelope protein (Env) have been less successful than anticipated to date. One possible reason for this is the potential conformational masking of neutralizing epitopes. The current technology combines HIV Env and cell surface polypeptides CD4 in non-covalent complexes to expose epitopes not present on the uncomplexed Env molecules. These complexes can thus be used to elicit neutralizing antibodies when used as vaccines, immunogenic compositions or immunotherapies. The CD4 inducing epitopes found in regions of the virus that are most conserved across clades are unmasked and immune sera generated with this technology neutralized primary HIV–1 viruses from several clades. Additionally, cell surface polypeptide CD4 is in its native conformation and masked by Env, therefore it is unlikely to induce autoantibodies.

Applications and Advantages: (1) HIV vaccine based on conformationally masked epitopes; (2) Presents epitopes to immune system that are the same or similar as with actual HIV infection; (3) Multiple copies of Env may enhance immune response and limit dosage.

Inventors: Jinhai Wang and Michael Norcross (CDER/FDA).

Patent Status: U.S. Provisional Application No. 60/711,985 filed 25 Aug 2005 (HHS Reference No. E–173–2005/0–US–01); PCT Application filed 25 Aug 2006 (HHS Reference No. E–173–2005/1–PCT–01).

Licensing Contact: Susan Ano, PhD; 301–435–5515; *anos@mail.nih.gov.*

Collaborative Research Opportunity: The FDA Center for Drug Evaluation and Research is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize this HIV Env-CD4 technology. Please contact Beatrice A. Droke at 301/827–7008 or *bea.droke@fda.hhs.gov* for more information.

Modified Bacterial Strain for Otitis Media Vaccine

Description of the Technology: This invention relates to a strain of Moraxella catarrhalis containing a gene mutation that prevents endotoxic lipooligosaccharide (LOS) synthesis and potential use of the mutant for developing novel vaccines against the pathogen, for which there is currently