

additional information. The Institute may issue an additional notice of CRADA opportunity during the design phase if circumstances change or if the design alters substantially.

Inventions described in the patent application(s) are available for either exclusive or non-exclusive licensing in accordance with 35 U.S.C. 207 and 37 CFR part 404. Respondees interested in licensing the invention(s) should submit an "Application for License to Public Health Service Inventions."

FOR FURTHER INFORMATION AND

QUESTIONS: Questions about licensing opportunities should be addressed to Fatima Sayyid, M.H.P.M., Technology Licensing Specialist, Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852-3804, Tel: 301-435-4521; Fax: 301-402-0220; E-mail: sayyidf@mail.nih.gov. Information about Patent Applications and pertinent information not yet publicly described can be obtained under the terms of a Confidential Disclosure Agreement.

Capability statements and questions about this CRADA opportunity should be submitted to Dr. Vincent Kolesnitchenko, Office of Technology Transfer and Development, National Heart, Lung, and Blood Institute, National Institutes of Health, 6705 Rockledge Drive, Suite 6018, MSC 7992, Bethesda, MD 20892-7992; Tel: 301-594-4115; Fax: 301-594-3080; E-mail: kolesniv@nhlbi.nih.gov.

SUPPLEMENTARY INFORMATION: A CRADA is an agreement designed to enable certain collaborations between the Government laboratories and non-Government laboratories. It is not a grant, and is not a contract for the procurement of goods/services. The NHLBI is prohibited from transferring funds to a CRADA collaborator. Under a CRADA, NHLBI can contribute facilities, staff, materials, and expertise to the effort. The collaborator typically contributes facilities, staff, materials, expertise, and funding to the collaboration. The CRADA collaborator may elect an option to negotiate an exclusive or non-exclusive license to Government intellectual property rights arising under the CRADA in a predetermined field of use and may qualify as a co-inventor of new technology developed under the CRADA.

Respondees interested in licensing the technology will be required to submit an Application for License to Public Health Service Inventions. Inventions described in the patent application(s) are available for either exclusive or non-

exclusive licensing in accordance with 35 U.S.C. 207 and 37 CFR part 404. Information about patent application(s) and pertinent information not yet publicly described can be obtained under the terms of a Confidential Disclosure Agreement.

Technology Description: Spoc cells are a previously unknown subpopulation of stem cells in adult murine skeletal muscle that can be transformed into beating cardiomyocytes in primary tissue culture. These cells are not satellite cells, myofibroblasts or myoblasts or hematopoietic stem cells. A portion of these marked freshly isolated spoc cells, injected into the tail vein of a mouse with an acute myocardial infarct populates the infarct in 2 weeks time; by 3 months they differentiate into cardiac myocytes in the region of the infarct. Spoc cells can be used to isolate orthologue human cells that may be useful in treating chronic and acute heart failure. These cells may also be used to produce cell lines from transgenic animals with targeted genes that are important to cardiac function. Such cell lines will be useful in high throughput pharmaceutical screening projects.

Capability Statements: A Selection Committee will use the information provided in the "Collaborator Capability Statements" received in response to this announcement to help its deliberations. It is the intention of the NHLBI that all qualified Collaborators have the opportunity to provide information to the Selection Committee through their capability statements. The Capability Statement should not exceed 10 pages and should address the following criteria:

(1) The ability to collaborate with NHLBI on further research and development of this technology. This ability can be demonstrated through experience and expertise in this or related areas of technology indicating the ability to contribute intellectually to on-going research and development.

(2) Expertise and experience in the following area: genomics/proteomics and analysis; animal models of heart disease; high throughput drug screening. Prospective collaborators need only be interested in pursuing a focused aspect of the potential applications.

(3) The demonstration of adequate resources to perform the research, development and commercialization of this technology (e.g., facilities, personnel and expertise) and accomplish objectives according to an appropriate timetable to be outlined in the CRADA Collaborator's proposal.

(4) The willingness to cooperate with the NHLBI in the timely publication of research results and to accept the legal provisions and language of the CRADA with only minor modifications, if any.

Dated: July 24, 2003.

Lili Portilla,

Director, Office of Technology Transfer and Development, National Heart, Lung, and Blood Institute.

Dated: August 4, 2003.

Steven M. Ferguson,

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

[FR Doc. 03-20561 Filed 8-12-03; 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, DHHS.

ACTION: Notice.

SUMMARY: The inventions listed below are owned by agencies 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.

Microscopy Imaging System, Filter, and Method for Controlling the Illuminating Light Path of a Fluorescence Microscope

Bechara Kachar (NIDCD)

U.S. Provisional Application Serial No. 60/463,318 filed 17 Apr 2003 (DHHS Reference No. E-172-2003/0-US-01)

Licensing Contact: Michael Shmilovich; 301/435-5019; shmilovm@mail.nih.gov

The invention relates to an imaging system comprising a fluorescence microscope and an annular filter. The microscope has an associated light source for providing an illuminated light path to an objective of the microscope for illuminating a specimen positioned on the microscope stage. The annular filter is positioned at a back focal plane of the illuminating light path such that only hollow cone of steep angled excitation light is delivered to the specimen and excluding low angle and axial light rays from entering the objective. Excitation illumination of the specimen occurs only in a limited region of the specimen corresponding to the focal volume where the light rays of the hollow cone of illumination converge. This modified configuration of the microscope and aperture increases signal to noise ratio of the resulting fluorescent image by reducing out of focus light (*i.e.*, scattered light). Photo-damage and photo-bleaching are also minimized.

Diffusion Tensor and q-Space MRI Specimen Characterization

Peter Basser (NICHD), Yaniv Assaf
DHHS Reference No. E-079-2003/0-
US-01 filed 08 Jul 2003
Licensing Contact: Michael Shmilovich;
301/435-5019;
shmilovm@mail.nih.gov

This new *in vivo* magnetic resonance imaging (MRI) method, especially suited for the characterization of brain white matter, combines q-space and diffusion tensor imaging concepts: Diffusion within axons is modeled as hindered diffusion parallel to an axis of the axon and restricted diffusion perpendicular to the axis. Diffusion exterior to axons is modeled as hindered diffusion with differing diffusivities parallel and perpendicular to the nerve axis. Diffusion weighted magnetic resonance images are obtained from specimens at different q values (magnitude and direction). Parameters associated with tissue microstructure are then extracted, such as the intra and extra-axonal principal diffusivities and their corresponding principal directions, and the volume fractions of intra and extra-axonal space. Improved angular resolution of fiber tracts orientation can be obtained for tractography studies, and more microstructural information can be gleaned both diagnostic and therapeutic purposes than from conventional diffusion tensor MRI.

Method and System for Developing and Querying a Sequence Driven Contextual Knowledge Base

Michael Waters, James Selkirk, and
Raymond Tennant (NIEHS)

U.S. Patent Application Serial No. 10/
452,384 filed 03 Jun 2003 (DHHS
Reference No. E-026-2003/0-US-01)
Licensing Contact: Michael Shmilovich;
301/435-5019;
shmilovm@mail.nih.gov

Available for licensing is a system of predictive toxicology and pharmacology in the form of a multigenome/multispecies knowledge base incorporating gene and amino acid sequences, molecular expression data, gene/protein functional annotation, domain specific ontologies, and/or literature mapping. The present invention integrates large volumes of disparate information, such as genomic, proteomic, and/or toxicological knowledge in a framework that serves as a continually changing heuristic engine for predictive toxicology. The invention allows characterization of the effects of, for example, chemicals or stressors across species as a function of dose, time, and phenotype severity.

This research is described, in part, in Waters *et al.*, *Environ. Health Perspect.* 111 (1T): 15-18 (January 2003), and republished in *Environ. Health Perspect. Toxicogenomics* 111 (6): 811-824 (May 2003).

Pattern Recognition of Whole Cell Mass Spectra

Jon G. Wilkes (FDA), Alexandre
Schvartsburg (NCTR)
DHHS Reference No. E-017-2003/0-
US-01 filed 06 Jun 2003
Licensing Contact: Michael Shmilovich;
301/435-5019;
shmilovm@mail.nih.gov

This invention analyzes mass spectra (MALDI, SELDI) from a plurality of microorganism sources and biological agents. The invention is useful for diagnosing disease, anticipating epidemic outbreaks, monitoring food supplies for contamination, regulating bioprocessing operations, and is especially useful for detecting agents of war. The invention dramatically improves spectral analysis through deconvolution of complex spectra by collapsing multiple peaks showing different molecular mass originating from the same molecular fragment into a single peak. The differences in molecular mass are apparent differences caused by different charge states of the fragment and/or different metal ion adducts of one or more of the charge states. The deconvoluted spectrum is compared to a library of mass spectra acquired from samples of known identity to unambiguously determine the identity of one or more components of the sample undergoing analysis.

Stem Cell Culture, Monitoring and Storage System

Rea Ravin (NINDS), James Sullivan
(ORS), Ronald McKay (NINDS).
U.S. Patent Application Serial No. 10/
334,565 filed 30 Dec 2002 (DHHS
Reference No. E-171-2002/0-US-01)
Licensing Contact: Michael Shmilovich;
301/435-5019;
shmilovm@mail.nih.gov

Available for licensing is a closed chamber that provides an environment for long-term culture of stem cells, stems cells of central nervous system (CNS) origin, embryonic stem cells, and other cells. The chamber is designed with top and bottom mounted cover slips that permit the observation of cells in culture under an optical microscope. This chamber has the ability to control volume and pressure of liquids and gases by an inlet tube and outlet tubes at two different vertical positions. The chamber also includes a ball joint assembly that allows for the manipulation of a glass microcapillary/microelectrode to come in close contact with the developing cells. This microcapillary/microelectrode assembly can be used to either administer growth factors (*e.g.*, monitoring growth factor levels such as BMP and CNTF) and also for electrical recording from the cells.

Dated: August 4, 2003.

Steven M. Ferguson,

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

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