

Dated: April 13, 2011.

Vivian Horovitch-Kelley,

NCI Project Clearance Liaison, National Institutes of Health.

[FR Doc. 2011-9509 Filed 4-19-11; 8:45 am]

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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.

NAG-1 Transgenic Mouse Model

Description of Technology: The nonsteroidal anti-inflammatory drug-activated gene-1 (NAG-1) encodes a protein that has anti-inflammatory, proapoptotic, and antitumor properties. It plays a pivotal role in antitumorigenesis induced by chemopreventive compounds. Transgenic mice expressing human NAG-1 have been developed by the NIH investigator and collaborator.

The NAG-1 transgenic mice are shown to develop few tumors in response to carcinogenic stimuli than wild type mice. They are also leaner with less fat than their wild type counterparts. As such, these mice can be used to investigate the development of cancers, and they could be of value in studying obesity and the relationship to cancer risk, and inflammation.

Inventors: Thomas E. Eling (NIEHS), *et al.*

Publications:

1. Baek SJ, Okazaki R, Lee SH, Martinez J, Kim JS, Yamaguchi K, Mishina Y, Martin DW, Shioeb A, McEntee MF, Eling TE. Nonsteroidal anti-inflammatory drug activated gene-1 overexpression in transgenic mice suppresses intestinal neoplasia. *Gastroenterology*. 2006 Nov;131(5):1553-1560. [PubMed: 17101328]
2. Cekanova M, Lee SH, Donnell RL, Sukthankar M, Eling TE, Fischer SM, Baek SJ. Nonsteroidal anti-inflammatory drug-activated gene-1 expression inhibits urethane-induced pulmonary tumorigenesis in transgenic mice. *Cancer Prev Res (Phila)*. 2009 May;2(5):450-458. [PubMed: 19401523]

Patent Status: HHS Reference No. E-093-2011/0—Research Tool. Patent protection is not being pursued for this technology.

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

Licensing Contact: Betty B. Tong, PhD; 301-594-6565; tongb@mail.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 Elizabeth M. Denholm, NIEHS Office of Technology Transfer, denholme@niehs.nih.gov, 919-541-0981, for more information.

Altered miRNA Expression as Diagnostics and Therapeutics for Adrenocortical Carcinomas

Description of Technology: This technology describes that altered human miRNA expression such as miRNA-483 and miRNA 100 can accurately predict if a patient's adrenal cortex tumor is benign or malignant. Adrenocortical carcinomas (ACC) are rare but aggressive cancers and typically have a poor prognosis. Currently, there are limited options for molecular diagnosis to distinguish malignant tumors from benign tumors of this type. As a result there are few treatment strategies for ACC.

Additionally, preliminary results suggest that altering the expression of this miRNA in ACC cells can effect cancer cell growth. Therefore, inhibiting a miRNA may serve as a therapeutic option for ACC.

Applications:

- Technology can be developed into a diagnostic and prognostic marker for ACC.
- Inhibiting miRNA can serve as a potential therapeutics for ACC.

Advantages:

- Distinguishes malignant Adrenal cortex tumor from a benign tumor, options for such distinction are limited at this time.

- Technology can help in increased and improved diagnosis and therapeutic options for ACC.

Development Status:

- Pre-clinical.
- Clinical study to test the markers in biopsy and serum samples being planned.

Inventors: Electron Kebebew (CCR, NCI) and Erin E. Patterson (CCR, NCI)

Publication: Patterson E. E. *et al.* (Cancer, 2010). [PubMed: 21061324]

Patent Status: U.S. Provisional Application No. 12/961,298 filed December 6, 2010 (HHS Reference No. E-026-2011/0-US-01)

Licensing Status: Available for licensing.

Licensing Contact: Sabarni Chatterjee, PhD, M.B.A.; 301-435-5587; chatterjeesa@mail.nih.gov

Collaborative Research Opportunity: The Center for Cancer Research, Surgery Branch, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize the use of diagnostic miRNAs and to target these miRNAs for treatment. Please contact John Hewes, PhD at 301-435-3121 or hewesj@mail.nih.gov for more information.

Novel Inhibitors of Thymic Stromal Lymphopoietin (TSLP) for Cancer Therapy

Description of Technology: With estimated overall costs in the U.S. in 2006 at \$206.3 billion and WHO predictions of 15 million new cases globally by 2020, the overall economic cost of cancer is staggering. There remains a significant unmet need for therapies to control the spread (metastasis) of cancers to other organs in the body. Available for licensing are compositions and methods of using antagonists of thymic stromal lymphopoietin (TSLP) to prevent cancer progression and metastasis.

TSLP, an IL-7-like type 1 inflammatory cytokine that is often associated with the induction of Th2-type allergic responses in the lungs, is also expressed in cancers regulating their escape (1-3). The cancer-promoting activity of TSLP primarily required signaling through the TSLP receptor on CD4+ T cells, promoting Th2-skewed immune responses and production of immunosuppressive factors such as IL-10 and IL-13. Expression of TSLP therefore may be a useful prognostic marker and its

targeting could have therapeutic potential. Inactivation of TSLP expression or its receptor signaling can effectively control cancer progression and metastasis (1).

Applications:

- In treatments to control cancer invasion and spreading
- Cancer treatment that circumvents cancer-induced immune suppression
- As a means to augment anti-tumor immune responses
- For the development of prognostic markers for disease outcome in cancer patients

Inventors: Arya Biragyn (NIA), Warren J. Leonard (NHLBI)

Relevant Publications:

1. Olkhanud PB, Rochman Y, Bodogai M, Malchinkhuu E, Wejsza K, Xu M, Gress RE, Hesdorffer C, Leonard WJ, Biragyn A. Thymic stromal lymphopoietin is a key mediator of breast cancer progression. *J Immunol.* 2011;V:186, In Press.

2. De Monte L, Reni M, Tassi E, Clavenna D, Papa I, Recalde H, Braga M, Di Carlo V, Doglioni C, Protti MP. Intratumor T helper type 2 cell infiltrate correlates with cancer-associated fibroblast thymic stromal lymphopoietin production and reduced survival in pancreatic cancer. *J Exp Med.* 2011 Mar 14;208(3):469–478. [PubMed: 21339327]

3. Pedroza-Gonzalez A, Xu K, Wu TC, Asporid C, Tindale S, Marches F, Gallegos M, Burton EC, Savino D, Hori T, Tanaka Y, Zurawski S, Zurawski G, Bover L, Liu YJ, Banchereau J, Palucka AK. Thymic stromal lymphopoietin fosters human breast tumor growth by promoting type 2 inflammation. *J Exp Med.* 2011 Mar 14;208(3):479–490. [PubMed: 21339324]

Patent Status: U.S. Provisional Application No. 61/416,619 filed November 23, 2010 (HHS Reference No. E-019-2011/0-US-01)

Licensing Status: Available for licensing.

Licensing Contact: Patrick P. McCue, PhD; 301-435-5560; mccuepat@mail.nih.gov

Collaborative Research Opportunity: The National Institute on Aging, Immunotherapeutics Unit, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize clinical application of TSLP in cancers. Please contact Nicole Guyton, PhD at 301-435-3101 or darackn@mail.nih.gov for more information.

System and Method for Producing Nondiffracting Light Sheets That Improves the Performance of Selective Plane Illumination Microscopy (SPIM)

Description of Technology: The technology offered for licensing relates

to a system and method of producing nondiffracting beams of light that spatially overlap, but do not interfere with each other when intersecting the detection plane of an optical arrangement. The system includes an illumination source (i.e., ultrafast laser) for transmitting a beam of light through the optical arrangement that includes a diffraction grating for diffracting the light beam to produce beams of light having different wavelengths, which are then passed through an annular aperture that transforms the beams of light into nondiffracting beams having different wavelengths. The method can be readily utilized in Selective Plane Illumination Microscopy (SPIM), a system that provides optical sectioning of a sample that is labeled with fluorescent dyes. SPIM can provide quantitative three-dimensional maps of the distribution of a fluorophore within the sample with high spatiotemporal resolution and an excellent signal-to-noise ratio. The standard SPIM technique however produces nonuniform axial resolution, which is caused by the diffraction of the laser beam through the sample, causing degradation in the optical sectioning, and forcing a compromise between field of view and axial resolution. Techniques for decoupling field of view and axial resolution have previously utilized nondiffracting beams (e.g., Bessel beams) for sample illumination. The resulting interference from multiple nondiffracting beams degrades the quality of optical sectioning and the quality of the image. The present technology utilizing nondiffracting noninterfering beams is intended to alleviate the problems associated with the currently used SPIM techniques.

Applications: In Selective Plane Illumination Microscopy (SPIM) used for optical sectioning and imaging of biological samples.

Development Status: Proof of concept has been demonstrated.

Inventors: Andrew York, Yicong Wu, Hari Shroff (NIBIB)

Relevant Publications:

1. Durnin J, Micheli J Jr, Eberly JH. Diffraction-free beams. *Phys Rev Lett.* 1987 Apr 13;58(15):1499–1501.
2. Greger K, Swoger J, Stelzer EH. Basic building units and properties of a fluorescence single plane illumination microscope. *Rev Sci Instrum.* 2007 Feb;78(2):023705. [PubMed: 17578115]
3. Fahrbach F, Rohrbach A. Microscopy with Non-diffracting Beams. Abstract at 2009 Focus on Microscopy Conference, http://www.focusonmicroscopy.org/2009/PDF/281_Fahrbach.pdf.
4. Rohrbach A. Artifacts resulting from imaging in scattering media: a theoretical prediction. *Opt Lett.* 2009 Oct 1;34(19):3041–3043. [PubMed:

19794809]

Patent Status: U.S. Provisional Application No. 61/360,352 filed 30 Jun 2010, entitled “System and Method of Producing Nondiffracting Light Sheets by a Multiplicity of Spatially Overlapping, Minimally Interfering Nondiffracting Optical Beams” (HHS Reference No. E-118-2010/0-US-01)

Licensing Status: Available for licensing.

Licensing Contacts:

- Uri Reichman, PhD, MBA; 301-435-4616; UR7a@nih.gov
- Michael Shmilovich, Esq.; 301-435-5019; shmilovm@mail.nih.gov

Collaborative Research Opportunity: The NIBIB Section on High Resolution Optical Imaging is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize the nondiffracting Light Sheets for SPIM. Please contact Hari Shroff at 301-435-1995 or hari.shroff@nih.gov for more information.

Dated: April 14, 2011.

Richard U. Rodriguez,

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

[FR Doc. 2011-9571 Filed 4-19-11; 8:45 am]

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Environmental Health Sciences; Amended Notice of Meeting

Notice is hereby given of a change in the meeting of the Board of Scientific Counselors, NIEHS, March 20, 2011, 7 p.m. to March 22, 2011, 12:30 p.m., Doubletree Guest Suites, 2515 Meridian Parkway, Research Triangle Park, NC, 27713 which was published in the **Federal Register** on February 23, 2011, 76 FR 36.

This **Federal Register** Notice has been amended to change the meeting date. The meeting will be held Sunday, May 22, 2011 at 7 p.m. through Tuesday, May 24, 2011 at 12:30 p.m. The meeting is partially Closed to the public.

Dated: April 12, 2011.

Jennifer S. Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 2011-9492 Filed 4-19-11; 8:45 am]

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