

ErbB4 in interneurons, but not pyramidal cells, of the rodent hippocampus. 2009 J Neurosci. Sep 30;29(39):12255–12264. [PubMed: 19793984].

4. Buonanno, A. The neuregulin signaling pathway and schizophrenia: From genes to synapses and neural circuits. Brain Res Bull. 2010 Aug 3; Epub ahead of print. [PubMed: 20688137].

#### Patent Status

- U.S. Provisional Application No. 60/837,449 filed 11 Aug 2006 (HHS Reference No. E-304-2005/0-US-01).
- International Application No. PCT/US07/75724 filed 10 Aug 2007, which published as WO 2008/019394 on 14 Feb 2008 (HHS Reference No. E-304-2005/0-PCT-02).

- U.S. Patent Application No. 12/377,025 filed 10 Feb 2009 (HHS Reference No. E-304-2005/0-US-03).

*Licensing Status:* Available for licensing.

*Licensing Contact:* Jeffrey Clark Klein, PhD; 301-594-4697; [kleinjc@mail.nih.gov](mailto:kleinjc@mail.nih.gov).

*Collaborative Research Opportunity:* The National Institutes of Child Health and Human Development, Section on Molecular Neurobiology, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize this technology. Please contact John D. Hewes, PhD at 301-435-3121 or [hewesj@mail.nih.gov](mailto:hewesj@mail.nih.gov) for more information.

Dated: September 20, 2010.

#### Richard U. Rodriguez,

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

[FR Doc. 2010-23977 Filed 9-23-10; 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.

#### Use of Adenosine Agonists To Prevent Arterial Vascular Calcification Disorder

*Description of Invention:* Scientists at the National Human Genome Research Institute (NHGRI) and the National Heart Lung and Blood Institute (NHLBI) at the National Institutes of Health (NIH) have discovered a genetic defect in the Ecto-5'-nucleotidase (*NT5E*) gene which results in Cluster of Differentiation 73 (CD73) deficiency that leads to a decrease in adenosine, and ultimately, an increase in vascular calcification. *NT5E* encodes CD73, an enzyme that converts adenosine monophosphate (AMP) to adenosine in the extracellular region of the vascular endothelium. Normally, extracellular adenosine binds to one of the several receptors on the surface decreasing the production of cyclic AMP (cAMP) resulting in an inhibition of vascular calcification.

The discovery of this genetic mutation leading to a decrease in adenosine provides a method of treating or preventing the disorder by using adenosine receptor agonists as therapeutic agents. Adenosine receptor agonists can be used to treat or prevent disorders associated with vascular and/or joint capsule calcification, including for example atherosclerosis, Monkeberg's medial sclerosis, CD74 deficiency, Ehlers Danlos syndrome (EDS), Marfan/Loewe Dietz syndrome, fibromuscular dysplasia, Kawasaki syndrome, pseudoxanthoma elasticum, and premature placental calcification.

*Applications:* Treatment for vascular calcification disorder by using adenosine receptor agonist agents.

*Development Status:* Early-stage.

*Inventors:* William A. Gahl (NHGRI), Thomas C. Markello (NHGRI), Shira G. Ziegler (NHGRI), Manfred Boehm (NHLBI), Cynthia Hillaire (NHLBI).

*Publication:* C St. Hilaire, et al. *NT5E* Mutations are Associated with Arterial Calcifications. New Engl J Med., Submitted 2010.

*Patent Status:* U.S. Provisional Application No. 61/319,336 filed 31 Mar 2010 (HHS Reference No. E-094-2010/0-US-01).

*Licensing Status:* Available for licensing.

*Licensing Contact:* Steve Standley, 301-435-4074, [sstand@od.nih.gov](mailto:sstand@od.nih.gov).

*Collaborative Research Opportunity:* The NHGRI is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize adenosine receptor agonist compounds for therapeutic use including as a treatment of certain common as well as rare vascular calcification-related disorders (see above Description of Invention). Please contact NHGRI Technology Development Coordinator Claire T. Driscoll at [cdriscoll@mail.nih.gov](mailto:cdriscoll@mail.nih.gov) for more information.

#### Small Molecule Neuropeptide S Receptor (NPSR) Antagonists for the Treatment of Addictive Disorders, Mood, Anxiety and Sleep Disorders

*Description of Invention:* The inventors, who work for the National Human Genome Research Institute (NHGRI) and the National Institute on Alcohol Abuse and Alcoholism (NIAAA) at the National Institutes of Health (NIH), have developed NPSR antagonists that hold the potential for being clinically useful treatments for alcohol and drug addiction. Neuropsychiatric disorders including, for example, mood, anxiety, eating, and sleep related disorders, as well as alcoholism and drug addiction, are major causes of mortality and morbidity. Patient relapse into drug seeking and use, after an interval of sobriety, is a key component of the addictive syndrome, with approximately two-thirds of patients relapsing within three months of initiating abstinence. Therefore, relapse prevention is a major treatment objective.

Neuropeptide S (NPS), an endogenous ligand for the Neuropeptide S receptor (NPSR) has recently been shown to play a key role in relapse-like behavior. In addition, because mood, anxiety, eating, and sleep related behaviors are often closely linked with the addictive process, and are also affected by the NPS system, it is believed that the NPSR antagonist will also be promising as a useful therapeutic target in these clinical areas as well.

*Applications:* Development of a NPSR antagonist for the therapies of alcohol and drug addiction.

*Development Status:* Early-stage.

*Market:* More than 700,000 Americans receive alcoholism treatment on any

given day by using the traditional alcoholism therapy based on clinical experience and intuition, with little rigorous validation of their effectiveness (<http://health.nih.gov/topic/Alcoholism/SubstanceAbuse>). About 18% of American adults have anxiety disorders ([www.nimh.nih.gov](http://www.nimh.nih.gov)). More than 40 million Americans suffer from chronic, long-term sleep disorders, and an additional 20 million report sleeping problems occasionally (<http://www.adaa.org>).

**Inventors:** Juan J. Marugan, Ke Liu, Samarjit Patnaik, Noel T. Southall, Wei Zheng (all with NHGRI); Markus Heilig (NIAAA).

**Related Publication:** N Cannella *et al.* Persistent increase of alcohol-seeking evoked by neuropeptide S: An effect mediated by the hypothalamic hypocretin system.

*Neuropsychopharmacology*. 2009 Aug; 34(9): 2125–2134. [PubMed: 19322167].

**Patent Status:** U.S. Provisional Application No. 61/328,900 filed 28 Apr 2010 (HHS Reference No. E-041–2010/0–US–01).

**Licensing Status:** Available for licensing.

**Licensing Contact:** Steve Standley, PhD; 301–435–4074; [sstand@mail.nih.gov](mailto:sstand@mail.nih.gov).

**Collaborative Research Opportunity:** The NIH Chemical Genomics Center (NCGC), NHGRI, NIH is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize these NPSR antagonist small molecule compounds for various therapeutic uses including treatment of neuropsychiatric disorders and alcohol and drug addiction. Please contact Dr. Juan J. Marugan at [maruganj@mail.nih.gov](mailto:maruganj@mail.nih.gov) for more information.

### A Rapid, Peripheral Blood Gene Expression Biomarker Panel for Diagnosis of Acute Ischemic Stroke

**Description of Invention:** There are presently no rapid, accurate diagnostic procedures or methods that can be used to determine whether a patient has suffered an acute ischemic stroke (AIS). Current technologies for diagnosis of AIS are limited by speed and resources as well as inaccuracy and generally require a high level of training to interpret the results for medical technicians. In contrast, this invention may lead to the development of a rapid and accurate clinical diagnostic kit that would require very little training for proper use and could be used in the field or the emergency room setting.

Scientists at the National Institutes of Health have discovered that expression

levels of a set of nine genes may be used as biomarkers for diagnosis of AIS as well as outcome prediction. These biomarkers may be rapidly identified using peripheral whole blood and may form the basis of a rapid and accurate clinical point of care diagnostic kit.

Further, if validation is positive, this technology may enable rapid differential diagnosis between acute ischemic stroke and hemorrhagic stroke, transient ischemic attack, or any pathology mimicking a stroke. Not only can this be used to identify stroke earlier in the course of treatment, this panel may also help to better characterize stroke subtype, and identify new pathways for stroke treatment. This is important as the only FDA approved treatment for acute ischemic stroke is tissue plasminogen activator (tPA) and tPA must not be given to hemorrhagic stroke patients since it could increase intracranial bleeding. To effectively treat AIS, tPA must be administered intravenously within 3–4 hours of known stroke onset. Because the differential diagnosis of AIS versus hemorrhagic stroke is difficult without specialized imaging equipment such as a CT scan with contrast or an MRI image, only a small percentage of stroke patients (3–5%) are ever given tPA. So, a rapid and accurate clinical diagnostic kit based on this invention would have a profound public health benefit and likely a large commercial potential.

#### Applications:

- A rapid and accurate clinical diagnostic kit for acute ischemic stroke.
- Differentiation between acute ischemic stroke and a hemorrhagic stroke, transient ischemic attack, or any pathology mimicking a stroke.
- Aid in the prediction of outcome and identify new pathways for ischemic stroke treatment.

**Advantages:** Faster, more accurate, and requires less training than currently available diagnostic procedures.

**Development Status:** Clinical Validation Pilot Study: Whole blood was collected in a clinical setting and gene expressions were subsequently profiled.

**Market:** Every year, about 795,000 people in the United States have a stroke, and about 675,000 of those strokes are ischemic. In 2006, 137,000 people in the United States died of stroke (<http://www.cdc.gov/stroke/>).

**Inventors:** Taura L. Barr (NINR), Maria Del Mar Matarin Jimenez (NIA), Steven J. Warach (NINDS), Andrew B. Singleton (NIA), Jinhui Ding (NIA), Allissa A. Dillman (NIA), Mark P. Cookson (NIA), Yvette Conley (University of Pittsburgh).

**Publication:** Barr, T.L.; Conley, Y.; Ding, J.; Dillman, A.; Warach, S.; Singleton, A.; Matarin, M. Genomic biomarkers and cellular pathways of ischemic stroke by RNA gene expression profiling; *Neurology*, Volume 75(11), 14 September 2010, pp 1009–1014.

**Patent Status:** U.S. Provisional Application No. 61/307,233 filed 23 Feb 2010 (HHS Reference No. E-023–2010/0–US–01).

**Licensing Status:** Available for licensing.

**Licensing Contact:** Jeffrey Clark Klein, PhD; 301–594–4697; [kleinjc@mail.nih.gov](mailto:kleinjc@mail.nih.gov).

**Collaborative Research Opportunity:** The NINR is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize a point of care test for ischemic stroke diagnostics and outcome prediction. Please contact Dr. Taura Barr at 304–293–0503 or [barrt@mail.nih.gov](mailto:barrt@mail.nih.gov) for more information.

Dated: September 20, 2010.

**Richard U. Rodriguez,**

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

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## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Centers for Medicare & Medicaid Services

[CMS–7019–N]

### Medicare Program; Meeting of the Advisory Panel on Medicare Education, October 13, 2010

**AGENCY:** Centers for Medicare & Medicaid Services (CMS), HHS.

**ACTION:** Notice of meeting.

**SUMMARY:** This notice announces a meeting of the Advisory Panel on Medicare Education (the Panel) in accordance with the Federal Advisory Committee Act. The Panel advises and makes recommendations to the Secretary of Health and Human Services and the Administrator of the Centers for Medicare & Medicaid Services on opportunities to enhance the effectiveness of consumer education strategies concerning the Medicare program. This meeting is open to the public.

**DATES:** *Meeting Date:* Wednesday, October 13, 2010 from 1 p.m. to 4 p.m., eastern daylight time (e.d.t.).