

*Licensing Status:* Available for licensing.

*Licensing Contact:* Peter A. Soukas, J.D.; 301-435-4646; [soukasp@mail.nih.gov](mailto:soukasp@mail.nih.gov)

### **Radiotracers for Imaging P-glycoprotein Transporter Function**

*Description of Technology:* This invention offers technology to help treat certain brain diseases, such as Alzheimer's disease and Parkinson's, and may lead to more effective and personalized treatments. P-glycoprotein transporter (P-gp) acts as a pump at the blood-brain barrier to exclude a wide range of xenobiotics (e.g., toxins, drugs, etc.) from the brain and is also expressed in a tumor in response to exposure to established/prospective chemotherapeutics (a phenomenon known as multidrug resistance; MDR). The instant invention relates to compounds that are avid substrates for P-gp, and their preparation and use as radiotracers for imaging P-gp function *in vitro* and *in vivo*.

*Applications:* These radiotracers have potential application for investigating the function of P-gp at the blood-brain barrier for human subjects and patients in relation to neuropsychiatric disorders and in cancer. Their application may lead to a better general understanding of the role of P-gp in the unfolding of certain brain diseases (e.g., Alzheimer's disease, Parkinson's disease), and ultimately to more effective and personalized treatment. Likewise, these radiotracers may be applied in oncology to help understand MDR and its clinical manifestation, and to help seek out cancer therapies that avoid MDR.

*Advantages:* This class of radiotracer, typified by the described [ $^{11}\text{C}$ ]dLop, is designed to restrict the formation of radiometabolites that would obstruct the measurement of P-gp function at the blood-brain barrier or at tumors. In this sense these radiotracers are vastly superior to progenitors (e.g., [ $^{11}\text{C}$ ]verapamil, [ $^{11}\text{C}$ ]loperamide), which can only give qualitative not quantitative information.

*Development Status:* Radiotracer studies in human subjects are in progress. Longer-lived versions of the radiotracers are in development.

*Market:* These radiotracers may be of interest to those wishing to market and/or apply such radiotracers in the medical imaging field.

*Inventors:* Victor W. Pike, Robert B. Innis, Sami S. Zoghbi, and Neva Lazarova (NIMH).

#### *Publications:*

1. SS Zoghbi, JS Liow, F Yasuno, J Hong, E Tuan, N Lazarova, RL Gladding, VW Pike, RB Innis.  $^{11}\text{C}$ -Loperamide

and its N-desmethyl radiometabolite are avid substrates for brain P-glycoprotein efflux. *J Nucl Med.* 2008 Apr;49(4):649-656.

2. N Lazarova, SS Zoghbi, J Hong, N Seneca, E Tuan; RL Gladding, JS Liow, A Taku, RB Innis, VW Pike. Synthesis and evaluation of [N-methyl- $^{11}\text{C}$ ]N-desmethyl-loperamide as a new and improved PET radiotracer for imaging P-gp function. *J Med Chem.* 2008 Oct 9;51(19):6034-6043.

3. JS Liow, W Kreisl, SS Zoghbi, N Lazarova, N Seneca, RL Gladding, A Taku, P Herscovitch, VW Pike, RB Innis. P-glycoprotein function at the blood-brain barrier imaged using  $^{11}\text{C}$ -N-desmethyl-loperamide in monkeys. *J Nucl Med.* 2009 Jan;50(1):108-115.

*Patent Status:* U.S. Patent Application No. 12/112,994 filed 30 Apr 2008 (HHS Reference No. E-318-2007/0-US-01)

*Licensing Status:* Available for licensing.

*Licensing Contact:* RC Tang, JD, LLM; 301-435-5031; [tangrc@mail.nih.gov](mailto:tangrc@mail.nih.gov).

*Collaborative Research Opportunity:* The National Institute of Mental Health Molecular Imaging Branch is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize radiotracers for imaging P-gp function. Please contact Victor Pike at [pikerv@mail.nih.gov](mailto:pikerv@mail.nih.gov) for more information.

Dated: March 24, 2009.

**Richard U. Rodriguez,**

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

[FR Doc. E9-7213 Filed 3-30-09; 8:45 am]

**BILLING CODE 4140-01-P**

## **DEPARTMENT OF HEALTH AND HUMAN SERVICES**

### **National Institutes of Health**

#### **Center for Scientific Review; Notice of Closed Meetings**

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which

would constitute a clearly unwarranted invasion of personal privacy.

*Name of Committee:* Center for Scientific Review Special Emphasis Panel; Molecular Neuroscience.

*Date:* April 20-21, 2009.

*Time:* 9 a.m. to 3 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

*Contact Person:* Deborah L. Lewis, PhD, Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 4118, MSC 7850, Bethesda, MD 20892, (301) 435-1224, [lewisdeb@csr.nih.gov](mailto:lewisdeb@csr.nih.gov).

*Name of Committee:* Center for Scientific Review Special Emphasis Panel; Topics in Developmental, Cellular and Molecular Biology.

*Date:* April 20, 2009.

*Time:* 2 p.m. to 4 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892 (Telephone Conference Call).

*Contact Person:* Sherry L. Dupere, PhD, Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5136, MSC 7843, Bethesda, MD 20892, (301) 435-1021, [duperes@csr.nih.gov](mailto:duperes@csr.nih.gov).

*Name of Committee:* Center for Scientific Review Special Emphasis Panel; Member Conflict Review for UKDG Study Section.

*Date:* April 27, 2009.

*Time:* 1 p.m. to 3 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892 (Telephone Conference Call).

*Contact Person:* Rass M. Shayiq, PhD, Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 2182, MSC 7818, Bethesda, MD 20892, (301) 435-2359, [shayiqr@csr.nih.gov](mailto:shayiqr@csr.nih.gov).

*Name of Committee:* Center for Scientific Review Special Emphasis Panel. Member Conflict: Memory and Neuroendocrinology.

*Date:* April 29, 2009.

*Time:* 3 p.m. to 5 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

*Contact Person:* Edwin C. Clayton, PhD, Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 50950, MSC 7844, Bethesda, MD 20892, (301) 402-1304, [claytone@csr.nih.gov](mailto:claytone@csr.nih.gov).

(Catalogue of Federal Domestic Assistance Program Nos. 93.306, Comparative Medicine; 93.333, Clinical Research; 93.306, 93.333, 93.337, 93.393-93.396, 93.837-93.844, 93.846-93.878, 93.892, 93.893, National Institutes of Health, HHS)

Dated: March 20, 2009.

**Jennifer Spaeth,**

*Director, Office of Federal Advisory Committee Policy.*

[FR Doc. E9-6785 Filed 3-30-09; 8:45 am]

**BILLING CODE 4140-01-M**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### Eunice Kennedy Shriver National Institute of Child Health & Human Development; Notice of Meeting

Pursuant to section 10(a) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meeting.

The meeting will be open to the public, with attendance limited to space available. Individuals who plan to attend and need special assistance, such as sign language interpretation or other reasonable accommodations, should notify the Contact Person listed below in advance of the meeting.

*Name of Committee:* National Institute of Child Health and Human Development Special Emphasis Panel Birth Defects Genome-Wide Association Study.

*Date:* April 29, 2009.

*Time:* 2 p.m. to 3:30 p.m.

*Agenda:* To provide concept review of proposed concept review.

*Place:* National Institutes of Health, 6100 Executive Boulevard, Room 5B01, Rockville, MD 20852. (Telephone Conference Call)

*Contact Person:* Sathasiva B. Kandasamy, PhD, Scientific Review Administrator, Division of Scientific Review, National Institute of Child Health, and Human Development, 6100 Executive Boulevard, Room 5B01, Bethesda, MD 20892-9304, (301) 435-6680, [skandasa@mail.nih.gov](mailto:skandasa@mail.nih.gov).

(Catalogue of Federal Domestic Assistance Program Nos. 93.864, Population Research; 93.865, Research for Mothers and Children; 93.929, Center for Medical Rehabilitation Research; 93.209, Contraception and Infertility Loan Repayment Program, National Institutes of Health, HHS)

Dated: March 24, 2009

**Jennifer Spaeth,**

*Director, Office of Federal Advisory Committee Policy.*

[FR Doc. E9-7226 Filed 3-30-09; 8:45 am]

**BILLING CODE 4140-01-P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### Eunice Kennedy Shriver National Institute of Child Health & Human Development; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

*Name of Committee:* National Institute of Child Health and Human Development Special Emphasis Panel; "The Screenable Disorders PAR".

*Date:* April 30, 2009.

*Time:* 1 p.m. to 3:30 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* National Institutes of Health, 6100 Executive Boulevard, Room 5B01, Rockville, MD 20852, (Telephone Conference Call).

*Contact Person:* Norman Chang, PhD, Scientific Review Administrator, Division of Scientific Review, National Institute of Child Health and Human Development, NIH, 6100 Executive Blvd., Room 5B01, Bethesda, MD 20892, (301) 496-1485, [changn@mail.nih.gov](mailto:changn@mail.nih.gov).

(Catalogue of Federal Domestic Assistance Program Nos. 93.864, Population Research; 93.865, Research for Mothers and Children; 93.929, Center for Medical Rehabilitation Research; 93.209, Contraception and Infertility Loan Repayment Program, National Institutes of Health, HHS)

Dated: March 24, 2009.

**Jennifer Spaeth,**

*Director, Office of Federal Advisory Committee Policy.*

[FR Doc. E9-7227 Filed 3-30-09; 8:45 am]

**BILLING CODE 4140-01-P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### National Institute of Dental & Craniofacial Research; Amended Notice of Meeting

Notice is hereby given of a change in the meeting of the National Advisory Dental and Craniofacial Research

Council, May 18, 2009, 8:30 a.m. to May 18, 2009, 4:30 p.m., National Institutes of Health, Building 31, 31 Center Drive, Conference Room 10, Bethesda, MD, 20892 which was published in the **Federal Register** on January 12, 2009, 74 FR 1222.

The meeting of the advisory council has been changed from May 18, 2009, to May 22, 2009. The meeting is partially closed to the public.

Dated: March 20, 2009.

**Jennifer Spaeth,**

*Director, Office of Federal Advisory Committee Policy.*

[FR Doc. E9-6783 Filed 3-30-09; 8:45 am]

**BILLING CODE 4140-01-M**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### National Cancer Institute; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and/or contract proposals and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications and/or contract proposals, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

*Name of Committee:* National Cancer Institute Special Emphasis Panel, "Develop Automated Methods to Identify Environmental Exposure Patterns in Satellite Imagery Data."

*Date:* April 15, 2009.

*Time:* 12:45 p.m. to 1:45 p.m.

*Agenda:* To review and evaluate contract proposals.

*Place:* National Institutes of Health, 6116 Executive Boulevard, Rockville, MD 20852 (Telephone Conference Call).

*Contact Person:* Kirt Vener, PhD, Branch Chief, Special Review And Logistics Branch, Division Of Extramural Activities, National Cancer Institute, NIH, 6116 Executive Blvd., Room 8061, Bethesda, MD 20892-8329. 301-496-7174, [venerk@mail.nih.gov](mailto:venerk@mail.nih.gov).

*Name of Committee:* National Cancer Institute Special Emphasis Panel, Molecular Oncology.

*Date:* June 3-5, 2009.

*Time:* 8 a.m. to 5 p.m.