Retroviral Vector Packaging Cell Lines and Purification Methods for Gene Therapy. For collaboration opportunities, please contact Suzanne L. Winfield, Ph.D. at *winfiels@mail.nih.gov* or 301–402–4324.

Enhanced Cancer Immunotherapy Using microRNA–155

Description of Technology: Tumor immunotherapy is a promising approach for the treatment of cancer. However, current T cell-based immunotherapies are limited by the poor engraftment and functionality of the transferred T cells. Moreover, lymphodepleting regimens used to enhance engraftment and function of transferred tumor-reactive T cells are plagued by life-threatening side effects.

The scientist at the NIH recently discovered that the overexpression of microRNA–155 (miR–155) in tumor-reactive murine CD8+ T cells can enhance T cell proliferation and anti-tumor efficacy without lymphodepletion and exogenous cytokine administration. Consequently, using the miR155 overexpressing human CD8+ T cells could provide a safer, more effective T cell-based immunotherapy. This invention describes miR155 CD8+ T cell compositions and methods of using the miR155 CD8+ T cells to treat cancer through adoptive immunotherapy.

Potential Commercial Applications: Use in enhanced adoptive immunotherapy to treat cancer.

Competitive Advantages:

- T cells with enhanced proliferation, survival, and function.
- Robust tumor response without the need of lymphodepletion and exogenous cytokine support.

Development Stage:

- Pre-clinical
- In vitro data available
- In vivo data available (animal)

Inventors: Yun Ji, Luca Gattinoni, Nicholas Restifo (NCI)

Publication: Dudda JC, et al. MicroRNA–155 Is Required for Effector CD8(+) T Cell Responses to Virus Infection and Cancer. Immunity. 2013 Apr 18;38(4):742–53. [PMID 23601686]

Intellectual Property: HHS Reference No. E–272–2012/0—US Provisional Application No. 61/716,653 filed 22 Oct 2012

Licensing Contact: Whitney Hastings; 301–451–7337; *hastingw@mail.nih.gov*

Collaborative Research Opportunity: The National Cancer Institute is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate or commercialize the use of microRNA–155 to enhance T cell-based immunotherapies. For collaboration opportunities, please contact Luca Gattinoni at *gattinol@mail.nih.gov* or 301–451–6914, or Nicholas Restifo at *restifo@nih.gov* or 301–496–4904.

Pyruvate Kinase M2 Activators for the Treatment of Cancer

Description of Technology: This technology describes a series of small-molecule activators of the pyruvate kinase M2 isoform (PK–M2).

Pyruvate kinase (PK) is a critical metabolic enzyme that catalyzes the last step of the glycolytic pathway. It exists in several isoforms with different patterns of tissue expression. One isoform, PK–M2, is expressed in cells with a high rate of nucleic acid synthesis, including most tumors, which makes this enzyme an attractive target for cancer therapy. PK–M2 can occur in either a tetrameric form or a dimeric form in proliferating cells; a high tetramer to dimer ratio leads to energy production, while a low ratio channels metabolites into synthetic processes. In tumor cells, oncoproteins induce dimerization of PK–M2, resulting in the inactive form of the protein and allowing synthesis of building blocks for cell proliferation. Activation of PK–M2 in these cells may prevent the buildup of metabolic intermediates and thereby stall tumor cell proliferation. Further, after embryonic development PK–M2 expression is primarily restricted to tumor cells, so specific activators of PK–M2 would be expected to affect only tumor cells, and would be less likely to be toxic in normal tissues.

Investigators at the National Center for Advancing Translational Sciences have discovered a series of small molecules that specifically activate the PK–M2 isoform and that may be useful for the treatment of cancer. These compounds are based upon a substituted thieno[3,2-b]pyrrole[3,2-d]pyridazinone scaffold.

Potential Commercial Applications: Targeted therapeutic agent for cancer and other cell proliferation disorders.

Competitive Advantages:

- Compounds are specific to one isoform of pyruvate kinase.
- Compounds target tumor cells and not normal cells, so side effects may be reduced.
- Compounds are small molecules which may be further optimized.

Development Stage:

- Early-stage
- In vitro data available

Inventors: Craig J. Thomas, Jian-Kang Jiang, Matthew B. Boxer, Min Shen, Douglas S. Auld (NCATS)

Publications:

1. Anastasiou D, et al. Pyruvate kinase M2 activators promote tetramer formation and suppress tumorigenesis. Nat Chem Biol. 2012 Oct;8(10):839–47. [PMID 22922757]

2. Anastasiou D, et al. Inhibition of pyruvate kinase M2 by reactive oxygen species contributes to cellular antioxidant responses. Science. 2011 Dec 2;334(6060):1278–83. [PMID 22052977]

3. Jiang J, et al. Evaluation of thieno[3,2-b]pyrrole[3,2-d]pyridazinones as activators of the tumor cell specific M2 isoform of pyruvate kinase. Bioorg Med Chem Lett. 2010 Jun 1;20(11):3387–93. [PMID 20451379]

Intellectual Property: HHS Reference No. E–298–2011/1—US Provisional Application No. 61/752,698 filed 15 Jan 2013

Related Technologies:

HHS Reference No. E–326–2008/0—

- US Patent Application No. 13/123,297 filed 25 Apr 2011
- US Patent Application No. 13/433,656 filed 29 Mar 2012
- Various international patent applications filed

HHS Reference No. E–120–2010/0—

- US Patent Application No. 13/643,594 filed 26 Oct 2012
- Various international patent applications filed

Licensing Contact: Tara Kirby, Ph.D.; 301–435–4426; *tarak@mail.nih.gov*

Collaborative Research Opportunity: The National Center for Advancing Translational Sciences (NCATS) is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate or commercialize Pyruvate Kinase M2 Activators for the Treatment of Cancer. For collaboration opportunities, please contact the Office of Strategic Alliances at *NCATSPartnerships@mail.nih.gov.*

Dated: May 10, 2013.

Richard U. Rodriguez,

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

[FR Doc. 2013–11602 Filed 5–15–13; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Allergy and Infectious Diseases Notice of Closed Meetings

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 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: National Institute of Allergy and Infectious Diseases Special Emphasis Panel; Clinical Trials Units for NIAID Network.

Date: June 10, 2013.

Time: 9:30 a.m. to 4:30 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6700B Rockledge Drive, Bethesda, MD 20817 (Telephone Conference Call).

Contact Person: Jay Bruce Sundstrom, Ph.D., Scientific Review Officer, Scientific Review Program, DEA/NIAID/NIH/DHHS, 6700B Rockledge Drive, MSC–7616, Bethesda, MD 20892, 301–496–7042, *sundstromj@niaid.nih.gov.*

Name of Committee: Microbiology, Infectious Diseases and AIDS Initial Review Group; Microbiology and Infectious Diseases Research Committee.

Date: June 11, 2013.

Time: 8:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Garden Inn Washington DC/Bethesda, 7301 Waverly Street, Bethesda, MD 20814.

Contact Person: Michelle M. Timmerman, Ph.D., Scientific Review Officer, Scientific Review Program, DEA/NIAID/NIH/DHHS, Room 2217, 6700B Rockledge Drive, MSC–7616, Bethesda, MD 20892–7616, 301–451–4573, *timmermanm@niaid.nih.gov.*

Name of Committee: National Institute of Allergy and Infectious Diseases Special Emphasis Panel; Clinical Trials Units for NIAID Networks.

Date: June 11, 2013.

Time: 9:30 a.m. to 4:30 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6700B Rockledge Drive, Bethesda, MD 20817 (Telephone Conference Call).

Contact Person: Jay Bruce Sundstrom, Ph.D., Scientific Review Officer, Scientific Review Program, DEA/NIAID/NIH/DHHS, 6700B Rockledge Drive, MSC–7616, Bethesda, MD 20892, 301–496–7042, *sundstromj@niaid.nih.gov.*

Name of Committee: National Institute of Allergy and Infectious Diseases Special Emphasis Panel; Clinical Trials Units for NIAID Networks.

Date: June 12, 2013.

Time: 9:30 a.m. to 4:30 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6700B Rockledge Drive, Bethesda, MD 20817 (Telephone Conference Call).

Contact Person: Jay Bruce Sundstrom, Ph.D., Scientific Review Officer, Scientific Review Program, DEA/NIAID/NIH/DHHS, 6700B Rockledge Drive, MSC–7616, Bethesda, MD 20892, 301–496–7042, *sundstromj@niaid.nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.855, Allergy, Immunology, and Transplantation Research; 93.856, Microbiology and Infectious Diseases Research, National Institutes of Health, HHS)

Dated: May 10, 2013.

David Clary,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2013–11598 Filed 5–15–13; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Diabetes and Digestive and Kidney Diseases Notice of Closed Meetings

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 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: National Institute of Diabetes and Digestive and Kidney Diseases Special Emphasis Panel; DCC MAPP Network.

Date: June 12, 2013.

Time: 4:30 p.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Two Democracy Plaza, 6707 Democracy Boulevard, Bethesda, MD 20892 (Telephone Conference Call).

Contact Person: Maria E. Davila-Bloom, Ph.D., Scientific Review Officer, Review Branch, DEA, NIDDK, National Institutes of Health, Room 758, 6707 Democracy Boulevard, Bethesda, MD 20892–5452, (301) 594–7637, *davila-bloomm@extra.niddk.nih.gov.*

Name of Committee: National Institute of Diabetes and Digestive and Kidney Diseases Special Emphasis Panel; NIDDK Bioengineering Interdisciplinary Training for Diabetes Research (T32).

Date: July 16, 2013.

Time: 12:00 p.m. to 3:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Two Democracy Plaza, 6707 Democracy Boulevard, Bethesda, MD 20892 (Telephone Conference Call).

Contact Person: Xiaodu Guo, Md, Ph.D., Scientific Review Officer, Review Branch, DEA, NIDDK, National Institutes of Health, Room 761, 6707 Democracy Boulevard, Bethesda, MD 20892–5452, (301) 594–4719, *guox@extra.niddk.nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.847, Diabetes, Endocrinology and Metabolic Research; 93.848, Digestive Diseases and Nutrition Research; 93.849, Kidney Diseases, Urology and Hematology Research, National Institutes of Health, HHS)

Dated: May 10, 2013.

David Clary,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2013–11600 Filed 5–15–13; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Diabetes and Digestive and Kidney Diseases Notice of Meetings

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 meetings.

The meetings will be open to the public as indicated below, 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.

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.