Name of Committee: Center for Scientific Review Special Emphasis Panel; Member Conflict: Cancer Detection and Therapy.

Date: July 7, 2021.

Time: 12:00 p.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

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

Contact Person: Laura Asnaghi, Ph.D., Scientific Review Officer, National Institutes of Health, Center for Scientific Review, 6701 Rockledge Drive, Room 6200, MSC 7804, Bethesda, MD 20892, (301) 443–1196, *laura.asnaghi@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: June 4, 2021.

David W. Freeman,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2021–12144 Filed 6–9–21; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Heart, Lung, and Blood Institute; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended, 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 Heart, Lung, and Blood Institute Special Emphasis Panel; Collaborative Research Projects (PAR–18–951).

Date: July 21, 2021.

Time: 2:00 p.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6705 Rockledge Drive, Bethesda, MD 20817 (Virtual Meeting).

Contact Person: Rajiv Kumar, Ph.D., Branch Chief, Blood and Vascular Branch, Office of Scientific Review/DERA, National Heart, Lung, and Blood Institute, 6705 Rockledge Drive, 208–W, Bethesda, MD 20892, 301–827–4612, *rajiv.kumar@nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.233, National Center for Sleep Disorders Research; 93.837, Heart and Vascular Diseases Research; 93.838, Lung Diseases Research; 93.839, Blood Diseases and Resources Research, National Institutes of Health, HHS)

Dated: June 4, 2021.

David W. Freeman,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2021–12141 Filed 6–9–21; 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, HHS.

ACTION: Notice.

SUMMARY: The invention listed below is owned by an agency of the U.S. Government and is available for licensing 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.

FOR FURTHER INFORMATION CONTACT: Benjamin Hurley; tel. 240–669–5092; *benjamin.hurley@nih.gov.* Licensing information may be obtained by communicating with the Technology Transfer and Intellectual Property Office, National Institute of Allergy and Infectious Diseases, 5601 Fishers Lane, Rockville, MD 20852; tel. 301–496–2644. A signed Confidential Disclosure Agreement will be required to receive copies of unpublished information related to the invention.

SUPPLEMENTARY INFORMATION: Technology description follows:

Producing Modified Vaccinia Ankara (MVA) Virus with Continuous Mammalian Cell Lines: Viral Host-range Factors for Increasing MVA Vaccine Production Yield Description of Technology:

Modified vaccinia Ankara (MVA) based vaccines are being deployed in numerous human clinical trials for indications such as measles, malaria, HIV–1 and MERS to name a few. As with many vaccines, scale-up and production are significant challenges with the MVA platform. Not only are current large-scale MVA vaccine production processes inefficient (such as the cumbersome use of chick embryo fibroblast (CEF) cells), but a major bottleneck lies in limited host cell propagation options and a lack of viable continuous cell lines suitable for MVA vaccine production.

To address this need, scientists at NIAID have identified a number of key viral factors in MVA replication in mammalian cells and developed methods of modifying MVA viruses in a way that allows for the growth of MVA in cells that were previously considered unsuitable for such purpose. For example, NIAID scientists observed that the introduction of a serine protease inhibitor 1 (SPI–1) gene into the MVA genome led to more than a 2-log enhancement of virus spread in human diploid MRC–5 cells, whereas deletion of the gene diminished the spread of host-range extended viruses by similar extents. Additionally, MRC–5 cells stably expressing SPI–1 also enhanced replication of MVA.

This technology is available for licensing for commercial development in accordance with 35 U.S.C. 209 and 37 CFR part 404, as well as for further development and evaluation under a research collaboration.

Potential Commercial Applications:

- *Vaccine Development:* Recombinant MVA-based vaccine production in non-CEF cell lines.
- *Therapeutic oncolytic virus:* Recombinant MVA constructs encoding oncolytic tumor-suppressor proteins, pro-apoptotic proteins, cytokines, immunomodulatory proteins, cytotoxic peptides, suicide proteins, cytotoxins, pro-drugs, therapeutic RNAs, etc.

Competitive Advantages:

- Recombinant MVA constructs for use in non-avian, continual cell line-mediated vaccine production.
- Efficient scale-up vaccine production as a result of higher viral yield, enhancing epidemic/pandemic preparedness.

Inventors: Bernard Moss, Linda Wyatt, Ruikang Liu, Jorge Mendez-Rios, all of NIAID.

Publications:

Liu R, Mendez-Rios JD, Peng C, et al. SPI–1 is a missing host-range factor required for replication of the attenuated modified vaccinia Ankara (MVA) vaccine vector in human cells.; *PLoS Pathog.* 2019.

Peng C, Moss B. Repair of a previously uncharacterized second host-range gene contributes to full replication of modified vaccinia virus Ankara (MVA) in human cells. *Proc Natl Acad Sci U S A.* 2020.

Intellectual Property: HHS Reference No. E–076–2019; International Application No. PCT/US20/33788.

Licensing Contact: To license this technology, please contact Benjamin

Hurley at 240–669–5092 or *benjamin.hurley@nih.gov,* and reference E–076–2019.

Collaborative Research Opportunity: The National Institute of Allergy and Infectious Diseases is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate or commercialize this invention. For collaboration opportunities, please contact Benjamin Hurley; (240) 669–5092, *benjamin.hurley@nih.gov.*

Dated: June 2, 2021.

Surekha Vathyam,

Deputy Director, Technology Transfer and Intellectual Property Office, National Institute of Allergy and Infectious Diseases.

[FR Doc. 2021–12182 Filed 6–9–21; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Heart, Lung, and Blood Institute; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended, 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 Heart, Lung, and Blood Institute Special Emphasis Panel; NHLBI Career Development Awards—K99.

Date: July 14, 2021.

Time: 11:30 a.m. to 1:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6705 Rockledge Drive, Bethesda, MD 20817 (Virtual Meeting).

Contact Person: Lindsay M. Garvin, Ph.D., Scientific Review Officer, Office of Scientific Review/DERA, National Heart, Lung, and Blood Institute, National Institutes of Health, 6705 Rockledge Drive, Suite 208–Y, Bethesda, MD 20892, (301) 827–7911, *lindsay.garvin@nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.233, National Center for Sleep Disorders Research; 93.837, Heart and Vascular Diseases Research; 93.838, Lung Diseases Research; 93.839, Blood Diseases and Resources Research, National Institutes of Health, HHS)

Dated: June 4, 2021.

David W. Freeman,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2021–12139 Filed 6–9–21; 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, HHS.

ACTION: Notice.

SUMMARY: The invention listed below is owned by an agency of the U.S. Government and is available for licensing 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.

FOR FURTHER INFORMATION CONTACT: Benjamin Hurley at 240–669–5092; *benjamin.hurley@nih.gov.* Licensing information may be obtained by communicating with the Technology Transfer and Intellectual Property Office, National Institute of Allergy and Infectious Diseases, 5601 Fishers Lane, Rockville, MD 20852; tel. 301–496–2644. A signed Confidential Disclosure Agreement will be required to receive copies of unpublished information related to the invention.

SUPPLEMENTARY INFORMATION: Technology description follows:

Producing Modified Vaccinia Ankara (MVA) Virus With Continuous Cell Lines: Modifications of Mammalian Host Cells for Increasing MVA Vaccine Production Yield

Description of Technology: Modified vaccinia Ankara (MVA) is a well-known and important platform for vaccine development, and many MVA-based vaccine trials are currently underway to prevent a variety of microbial diseases. While MVA shows promise as a vaccine platform, wide-scale industry use of MVA may be currently held back due to MVA's severe host-restriction, and the fact that large bulks of culture cells are presently required to produce enough product for mass commercial use. At present, the range of commonly-used culture cells that can support high-titer production of MVA is limited to chick embryo fibroblast (CEF) cells. Unfortunately, the production of CEF cells in bulk involves many slow and inefficient manufacturing steps both upstream and downstream. Therefore, especially in the context of pandemic preparedness, continuous cell lines that allow for efficient, large-scale MVA propagation would be beneficial.

There is a clear need for an expanded range of cell lines that are easily maintained in culture, and that allow for the production of high titers of infectious MVA virus. The present invention provides methods of modifying non-permissive cell lines in a way that allows for production of MVA.

Scientists at NIAID have made a breakthrough discovery by identifying the mammalian Zinc finger antiviral protein (ZAP) as a restriction factor that inhibits MVA growth in mammalian cells. They have demonstrated that ZAP abrogation enhanced replication of the MVA in a range of mammalian cells that are normally non-permissive for MVA replication. In particular, CRISPR/Cas9 inactivation of ZAP was shown to produce stable cell lines capable of supporting MVA replication. Additionally, recombinant host cells engineered to produce vaccinia virus proteins C12L and C16L have been shown to overcome the host range inhibition of the MVA.

This technology is available for licensing for commercial development in accordance with 35 U.S.C. 209 and 37 CFR part 404, as well as for further development and evaluation under a research collaboration.

Potential Commercial Applications:

- Vaccine Development: Recombinant continuous cell lines useful for efficient, large-scale production of MVA.
- May offer improved vaccine production scaling-response times, enhancing epidemic/pandemic preparedness.

Competitive Advantages:

- Overcomes inefficiencies associated with CEF production of MVA-based vaccines.

Inventors: Bernard Moss, Linda Wyatt, Chen Peng, Gilad Sivan, Shira Glushakow-Smith, all of NIAID.

Publications:

Liu R, Mendez-Rios JD, Peng C, et al. SPI–1 is a missing host-range factor required for replication of the attenuated modified vaccinia Ankara (MVA) vaccine vector in human cells.; *PLoS Pathog.* 2019.

Peng C, Moss B. Repair of a previously uncharacterized second host-range gene contributes to full replication of modified vaccinia virus Ankara (MVA) in human cells. *Proc Natl Acad Sci U S A.* 2020.

Peng, C, Wyatt, L, Glushakow-Smith, SG, Lal-