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 and/or co-development in the U.S. in accordance with 35 U.S.C. 209 and 37 CFR part 404 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 and/or co-development.

ADDRESSES: Invention Development and Marketing Unit, Technology Transfer Center, National Cancer Institute, 9609 Medical Center Drive, Mail Stop 9702, Rockville, MD, 20850–9702.

FOR FURTHER INFORMATION CONTACT: Information on licensing and co-development research collaborations, and copies of the U.S. patent applications listed below may be obtained by contacting: Attn. Invention Technology Transfer Center, National Cancer Institute, 9609 Medical Center Drive, Mail Stop 9702, Rockville, MD, 20850–9702, Tel. 240–276–5515 or email ncitechtransfer@mail.nih.gov. A signed Confidential Disclosure Agreement may be required to receive copies of the patent applications.

SUPPLEMENTARY INFORMATION:

Title of invention: Analogues of Withanolide E Sensitize Cancer Cells to Apoptosis.

Keywords: TRAIL, TLR3, apoptosis, immunotherapy, tumor necrosis factor, TNF.

Description of Technology: The tumor necrosis factor (TNF)-related apoptosis-inducing ligand (TRAIL) protein has been a target of interest in cancer therapy because it plays a large role in inducing cell apoptosis in cancer cells but not in normal cells. Although TRAIL has been reported to successfully target certain tumor cells which are resistant to traditional chemotherapy or radiation, TRAIL resistance has also been widely observed. Similarly, Toll-like receptor (TLR) 3 ligands such as poly I:C have also been reported to promote apoptosis in certain cancer cells, though the apoptotic signaling in most cancer cells was weak and was only significant following longer term incubations. Thus, there is a need to develop compounds that can sensitize cancer cells to apoptosis inducing ligands, such as poly I:C and TRAIL.

In collaboration with the University of Arizona, NCI investigators have discovered a series of compounds in the withanolide family that synergistically enhance the response of cancer cells to treatment with an apoptosis-inducing ligand. The compounds each show a 4- to 10-fold increase in potency compared to withanolide E alone in promoting death ligand-mediated cancer cell death. One biotinylated analogue in particular is at least 15-fold more potent than withanolide E in promoting apoptosis in human melanoma cells when used in combination with either poly I:C or TRAIL. A selection of active compounds were tested in murine xenograft models of human melanoma and showed decreased tumor growth and tumor regression.

Potential Commercial Applications

• Potential therapeutic for the treatment of cancer either alone or in combination with an apoptosis inducing agent such as TRAIL receptor or TLR 3 agonists by directly promoting tumor cell apoptosis.

• Possible indirect enhancement of cancer immunotherapy due to release of cancer cell antigens in the presence of the powerful immune-adjuvant effects of TLR3 agonists.

Value Proposition

Withanolide E derivatives enhance the anti-cancer activity of known apoptosis inducing ligands such as TRAIL or poly I:C and may be used to enhance efficacy of TRAIL receptor or poly I:C agonists that are currently under development.

Development Stage: Pre-clinical (in vivo validation).

Inventor(s): Thomas Sayers (NCI), Alan Brooks (NCI), Curtis Henrich (NCI), Poomarn Tewary (NCI), James McMahon (NCI), Leslie Ganatilaka (University of Arizona), Ya-ming Xu (University of Arizona), and E.M. Kithsiri Wijeratne (University of Arizona).


Publications

1. Tewary P., Gunatilaka A.A. and Sayers T.J. (2016) Using natural products to promote caspase-8-


Collaboration Opportunity: Researchers at the NCI seek licensing and/or co-development research collaborations for development of withanolide E analogues for the treatment of cancer.

Contact Information: Requests for copies of the patent application or inquiries about licensing, research collaborations, and co-development opportunities should be sent to John D. Hewes, Ph.D., email: john.hewes@nih.gov.

Dated: September 6, 2016.

John D. Hewes, Technology Transfer Specialist, Technology Transfer Center, National Cancer Institute.

[FR Doc. 2016–21904 Filed 9–12–16; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health National Institute of Mental Health; 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 Mental Health Initial Review Group; Mental Health Research Grants, National Institutes of Health, HHS


Carolyn A. Baum, Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2016–21897 Filed 9–12–16; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institute of Environmental Health Sciences; 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 Environmental Health Sciences Special Emphasis Panel; Superfund Hazardous Substance Research and Training Program.


Carolyn A. Baum, Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2016–21896 Filed 9–12–16; 8:45 am]

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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 Initial Review Group; Health, Behavior, and Context Subcommittee.

Dated: October 14, 2016.

Carolyn Baum, Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2016–21895 Filed 9–12–16; 8:45 am]

BILLING CODE 4140–01–P