**[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 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. 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.

**FOR FURTHER INFORMATION:** 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.

**SUPPLEMENTARY INFORMATION:** Technology descriptions follow.

**RNA Splicing Inhibitors to Treat Cancers**

**Description of Technology:** Vemurafenib is a B-Raf enzyme inhibitor that causes cell death in melanoma tumor cells that possess a mutated B-Raf protein (V600E BRAF mutation); however, patients rapidly develop resistance. One mechanism for acquired resistance of these patients to BRAF inhibitors has been found to be mediated by the existence of BRAF (V600E) splicing variants that possess structural changes in BRAF that confer insensitivity to BRAF inhibitors.

Researchers at the National Cancer Institute have discovered that RNA splicing inhibitors can block the growth of vemurafenib-resistant tumors. Further, the researchers have also found that other types of tumors that possess BRAF splicing isoforms are susceptible to RNA splicing inhibitors.

Available for licensing are methods of using RNA splicing inhibitors to treat tumors, including melanomas, and methods to detect tumors that possess certain BRAF splicing isoforms susceptible to RNA splicing inhibitors.

**Potential Commercial Applications:** Therapeutic agents to treat tumors

**Competitive Advantages:** No discernible toxicity in mice

**Development Stage:** Early-stage; In vitro data available; In vivo data available (animal)

**Inventors:** Thomas A. Misteli and Maayan Salton-Morgenstern (NCI)

**Intellectual Property:** HHS Reference No. E-065-2014/0 - US Application No. 61/974,378 filed 02 Apr 2014

**Licensing Contact:** Patrick McCue, Ph.D.; 301-435-5560; mccuepat@od.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 development of RNA splicing modulators as therapeutic agents in cancer. For collaboration opportunities, please contact John D. Hewes, Ph.D. at hewesj@mail.nih.gov.

**Treatment of Chronic Kidney Disease with Synthetic Amphipathic Peptides**

**Description of Technology:** The invention is directed to treatment of chronic kidney disease by administering a synthetic, amphipathic helical peptide known as 5A-37pA, and novel derivatives thereof. Scientists at NIDDK have demonstrated that invention peptides antagonize activity of a particular scavenger receptor known as CD36. Using an in vivo model, NIDDK scientists have shown that invention peptides slowed progression of chronic kidney disease and can potentially be utilized as a therapeutic treatment.

Additionally, certain invention peptides bind selectively to CD36 with high specificity over other homologous scavenger receptors. Thus, invention peptides can be utilized as a research tool to further evaluate the complex etiology of chronic kidney disease.

5A-37pA, and derivatives thereof, are peptide mimetic of apolipoprotein A-1. These peptides have been described in NIH owned patents and/or patent applications (see, for example, U.S. Patent Nos. 7,572,771 and 8,071,746 and 8,148,323). Use of these peptides, as well as the novel peptides of this invention, for the treatment of kidney diseases is currently available for licensing.

**Potential Commercial Applications:** Therapeutic; Research Tool

**Competitive Advantages:** Selective antagonist of CD36 activity; Specific binding to CD36 over other scavenger receptors

**Development Stage:** Early-stage; In vitro data available; In vivo data available (animal)

**Inventors:** Ana C. Souza (NIDDK), Peter S. Yuen (NIDDK), Robert A. Star (NIDDK), Alexander V. Bocharov (CC), Alan Remaley (NHLBI), Thomas Eggerman (NIDDK)

**Intellectual Property:** HHS Reference No. E-743-2013/0 - U.S. Application No. 61/890,585 filed 14 Oct 2013

**Related Technology:** HHS Reference No. E-114-2004/0

**Licensing Contact:** Lauren Nguyen-Antczak, Ph.D., J.D.; 301-435-4074; nguyenantczakla@mail.nih.gov

**Collaborative Research Opportunity:** The National Institute of Diabetes and Digestive and Kidney Diseases is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate or commercialize Treatment of Chronic Kidney Disease with 5A-37pA and Derivatives Thereof. For

collaboration opportunities, please contact Marguerite Miller at marguerite.miller@nih.gov or 301-496-9003.

**Novel Anti-HIV Proteins from Coral Reefs**

**Description of Technology:** The subject invention describes Cnidarins as a novel class of highly potent proteins capable of blocking the HIV virus from penetrating T-cells. Cnidarins were found in a soft coral collected in waters off Australia's northern coast. Cnidarins can block virus fusion/entry but do not block viral attachment. In addition, Cnidarins do not have lectin-like activity and therefore possibly a unique mechanism of action. Thus, Cnidarins may represent important new leads for HIV microbicides or for systemic therapeutics for HIV.

**Potential Commercial Applications:** Microbicide; Therapeutic; Research tool

**Competitive Advantages:** High potency against HIV; Novel chemical composition; Family of related proteins; Unique mechanism of action

**Development Stage:** Early-stage; In vitro data available; Prototype

**Inventors:** Barry O'Keefe, James McMahon, Koreen Ramessar, Chang-yun Xiong (all of NCI)

**Intellectual Property:** HHS Reference No. E-295-2012/0 - US Provisional Patent Application No. 61/925,347 filed 09 Jan 2014

**Licensing Contact:** Sally H. Hu, Ph.D., M.B.A.; 301-435-5606; hus@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 large-scale recombinant production of cnidarins and evaluation of their broader antiviral activity as well as additional pre-clinical studies. For collaboration opportunities, please contact John D. Hewes, Ph.D. at hewesj@mail.nih.gov.

Dated: June 2, 2014.

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

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