exploiting cell surface proteases present at high levels in tumors, they have developed a tumor-targeted anthrax based toxin that inactivates the blood vessels within tumors. While in some cases cancer cells are also killed by the tumor-targeted toxin, the primary mechanism of action is thought to be a decrease in blood flow to the center of tumors, causing cancer cell death and tumor necrosis. Preliminary and on-going studies have demonstrated that the targeted toxins have antitumor effects on melanomas, lung cancers and colon cancer in mouse models, and on feline and canine oral tumors. Interestingly, this therapy does not target a specific type of cancer cell, rather it targets the vasculature in and around tumors. Therefore, it has great potential to treat a wide range of solid tumors. Additionally, because few non-surgical treatments are available to treat many human and veterinary solid tumors, this technology would fill an unmet need in cancer therapy.

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

Therapeutic agent for a wide range of human and veterinary solid tumors, including:

- Melanomas
- Lung and colon cancers
- Oral squamous carcinomas

Competitive Advantages

- Proven effective in a variety of models, including models of important veterinary cancers.
- Agent is only active in tumor micro-environments, resulting in low toxicity to healthy tissue.
- Cancer cells are not directly targeted, so this agent can be used to treat a broad spectrum of solid tumors and resistance is unlikely to arise.
- Fills an unmet need in cancer therapy, because few non-surgical treatments exist.

Development Stage

- *in vitro* data available
- *in vivo* data available (animal)
- prototype

Inventors: S. Leppla (NIAID); S.-H. Liu (NIAID); T. Bugge (NIDCR); A.Wein (NIAID); D. Peters (NIDCR); J. Liu (NHLBI); K.-H.Chen (NIAID); H. Birkedal-Hansen (NIDCR); S. Netzel-Arnett (NIDCR); D. Phillips (NIAID); C. Leysath (NIAID); C. Bachran (NIAID)

Publications

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Intellectual Property

HHS E–256–2015—US Application Nos. 62/210,771, filed 27 Aug 2015; 62/323,218, filed 15 Apr 2016; PCT App. No. PCT/US16/48706, filed 25 Aug 2016.

HHS E–120–2013—US App. No. 14/898,248, filed 14 Dec 2015; PCT App. No. PCT/US2014/043131, filed 19 Jun 2014.

HHS E–246–2012—US App. No. 14/423,408, filed 23 Feb 2015; PCT App. No. PCT/US13/56205

HHS E–059–2004—US Patent No. 7,947,289, filed 09 Feb 2005.

HHS E–293–1999—US Patent Nos. 7,468,352, filed 22 Mar 2002; 8,791,074, filed 20 Oct 2008, and 9,403,872 filed 24 Jun 2014.

Licensing Contact: Dr. Natalie Greco, 301–761–7898; *Natalie.Greco@nih.gov*.

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 anthrax toxin-based cancer therapeutics. For collaboration opportunities, please contact Dr. Natalie Greco, 301–761–7898; *Natalie.Greco@nih.gov.*

Dated: June 1, 2017.

Suzanne Frisbie,

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

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Office of the Director; Notice of Charter Renewal

In accordance with Title 41 of the U.S. Code of Federal Regulations, Section 102–3.65(a), notice is hereby given that the Charter for the Advisory Committee to the Director, National Institutes of Health, was renewed for an additional two-year period on May 31, 2017.

It is determined that the Advisory Committee to the Director, National Institutes of Health, is in the public interest in connection with the performance of duties imposed on the National Institutes of Health by law, and that these duties can best be performed through the advice and counsel of this group.

Inquiries may be directed to Jennifer Spaeth, Director, Office of Federal Advisory Committee Policy, Office of the Director, National Institutes of Health, 6701 Democracy Boulevard, Suite 1000, Bethesda, Maryland 20892 (Mail code 4875), Telephone (301) 496–2123, or *spaethj@od.nih.gov*.

Dated: June 7, 2017.

Jennifer Spaeth,

Director, Office of Federal Advisory Committee Policy.

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