

Evelo Biosciences Announces Issuance of U.S. Patent Supporting Monoclonal Microbial Oncology Trials

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New patent covers the use of Bifidobacteria in combination with checkpoint inhibitors to treat cancer

CAMBRIDGE, Mass., Jan. 9, 2018 /PRNewswire/ -- Evelo Biosciences is developing monoclonal microbials, which are a new class of orally delivered, effective and safe medicines that act on the gut-immune axis to modulate immunity throughout the body to address a broad range of patient needs in oncology and inflammatory diseases. Evelo announced today that the U.S. Patent and Trademark Office has issued U.S. Patent No. 9,855,302 covering *Bifidobacteria* for the treatment of cancer in combination with checkpoint inhibitors. Evelo has a worldwide exclusive license to the technology and patent estate from the University of Chicago.

Evelo's drug discovery and development platform, from microbial strain identification through candidate evaluation, manufacturing and clinical development, has enabled a pipeline of monoclonal microbial clinical candidates. Evelo's first oncology clinical trials, which are planned to begin in 2018, will use monoclonal microbials developed from *Bifidobacteria* to treat cancer in combination with checkpoint inhibitors.

"Evelo has made great progress in developing these exclusively licensed immunotherapies for cancer and planned clinical trials are further evidence of our strong partnership," said John Flavin, associate vice president and head of [the](#) Polsky Center for Entrepreneurship and Innovation at the University of Chicago. "We are pleased to work with Evelo to develop this new class of medicine and to translate these discoveries into therapies."

The patent is based on seminal work from the laboratory of Dr. Thomas Gajewski, whose team showed that the introduction of a particular strain of bacteria into the digestive tracts of mice with melanoma boosted the ability of the animal's immune systems to attack tumor cells. When combined with a checkpoint blockade inhibitor for PD-L1, the therapy nearly eradicated tumors in the mice. Gajewski's research was reported November 5, 2015 and January 5, 2018 in the journal *Science*.

"This is an exciting time in the field of cancer immunotherapy," Gajewski said. "Our previous work revealed a role for a commensal microbe in boosting the therapeutic efficacy of checkpoint blockade immunotherapy in mice. Our most recent work has indicated a similar correlation between the microbiota and anti-PD1 efficacy in patients. This relationship with Evelo will rapidly bring these new microbe-based immunotherapies forward into clinical testing in cancer patients."

"This patent has broad and fundamental claims to treat cancer using bacteria and is expected to be the first of many such patents for Evelo," said William DeVaul, vice president, head of intellectual property at Evelo. "The patent further validates the important and groundbreaking nature of the work."

About Evelo Biosciences

Evelo Biosciences is dedicated to improving the lives of patients globally through the development of a new modality of medicines – monoclonal microbials. Monoclonal microbials are a new class of orally delivered, effective and safe medicines that act on the gut immune-axis to modulate immunity throughout the body. These medicines are broadly applicable across many diseases – including autoimmune, immunoinflammatory, metabolic, neurological, neuroinflammatory diseases and cancer. By finding and selecting naturally occurring monoclonal microbials with defined therapeutic effects, Evelo's platform can dramatically outpace the speed, cost and success of traditional drug discovery and development. Within less than 2 years, Evelo has discovered 4 development candidates with diverse biologies, which will enter the clinic across multiple indications in 2018. Evelo Biosciences was conceived and created within VentureLabs®, Flagship Pioneering's institutional innovation foundry, and launched by Flagship in 2015. For more information, please visit www.evelobio.com.

About the University of Chicago

As one of the world's premier research universities, the University of Chicago empowers students and scholars through its commitment to free and open inquiry. Across numerous departments and disciplines, as well as more than 140 institutes and centers, the UChicago community advances ideas and innovations that enrich human life. UChicago's faculty are some of the top in the world. The University of Chicago has 90 Nobel Prize winners, including 6 current faculty, and receives more than \$450 million in sponsored research awards each year. Please visit: www.uchicago.edu.

About the Polsky Center for Entrepreneurship and Innovation

The Polsky Center for Entrepreneurship and Innovation drives venture creation and technology commercialization at the University of Chicago and within the surrounding South Side community. Among its offerings is the top-ranked university accelerator, the Edward L. Kaplan, '71, New Venture Challenge, which has launched more than 180 companies worldwide including Grubhub and Braintree; a 34,000 square-foot, multidisciplinary co-working space called the Polsky Exchange; an Innovation Fund that invests in early-stage ventures; and a state-of-the-art Fabrication Lab for prototyping new products. By leveraging the University's distinctive strengths as an intellectual destination and world-class research institution, the Polsky Center brings together innovators and industry partners to translate research, build sustainable organizations and products, and pave the way for more ideas to have a lasting, positive social and economic impact. Learn more at polsky.uchicago.edu.

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