

January 30, 2018



BiomX Licenses Novel Bacterial Targets for the Treatment of Inflammatory Bowel Disease

Targets licensed from the JSR Corporation in Japan, based on discoveries by Professor Kenya Honda of Keio University School of Medicine, in research recently published in Science magazine

NESS ZIONA, Israel, Jan. 30, 2018 /PRNewswire/ -- [BiomX Ltd.](#), a microbiome company developing customized phage therapies, today announced that it has exclusively sub-licensed from JSR Corporation a set of bacterial targets for the development and commercialization of phage therapies that eradicate these targets, as a treatment for inflammatory bowel disease (IBD). These targets, discovered by Dr. Kenya Honda, Professor of Microbiology and Immunology at Keio University School of Medicine, were shown to be pro-inflammatory and may have a role in the onset and aggravation of IBD. The findings were recently published in [Science](#) magazine^[1].



Using its advanced discovery and development capabilities in phage therapy, BiomX is advancing BX002, a phage composition customized to specifically target and eradicate these IBD associated pro-inflammatory gut bacteria. BiomX plans to file an investigational new drug (IND) application with the U.S. Food and Drug Administration (FDA) in 2019.

"Professor Honda's pioneering discoveries in the understanding of the role of bacteria in modulating the microbiome have been major drivers in advancing the microbiome field. Paired with our technology, we are now capable of selectively eradicating targeted components of the microbiome as they specifically relate to IBD," stated Jonathan Solomon, CEO of BiomX. "Under the terms of agreement with JSR, we have been developing BX002, our lead drug candidate for IBD, for over a year. This exclusive licensing agreement fortifies our position as a microbiome-targeting drug developer."

BX002 offers a groundbreaking approach for treating IBD as it targets a possible underlying cause for the disease, whereas existing medications offer only symptomatic relief to this chronic, lifelong condition.

Prof. Honda and his team showed that several bacterial strains, which are typically present in the oral cavity, are more abundant in the gut microbiome of patients with IBD compared to

healthy individuals. The researchers further showed that a subset of these bacterial strains, and in particular certain antibiotic-resistant *Klebsiella pneumoniae* strains, induce an inflammatory response in the guts of germ-free mice. They further demonstrated that, when colonizing the gut of IBD model mice, these specific strains of oral bacteria can trigger activation of inflammatory T-cells and induce disease exacerbation.

"The discovery that IBD may be caused by certain oral bacteria is an important step forward in our understanding of this disease," said Dr. Kenya Honda, Professor of Microbiology and Immunology at Keio University School of Medicine. "This license agreement will support continued research with the ultimate goal of translating this new understanding into a therapeutic option which could potentially help patients living with this debilitating condition."

"As alerted by WHO, a new drug for Carbapenem Resistant Enterobacteriaceae (CRE), which include strains of *Klebsiella pneumoniae*, is of critical need," said Mitsunobu Koshiba, Representative Director and President of JSR Corporation. "We believe that BiomX could provide the solution. We are confident to contribute to global health through this license."

About Inflammatory Bowel Disease (IBD)

Inflammatory bowel disease is a group of disorders that involve chronic inflammation of the digestive tract, which include Crohn's disease and ulcerative colitis. IBDs affect as many as 1.6 million Americans, most of whom are diagnosed before the age of 35. As many as 70,000 new cases of IBD are diagnosed in the US each year. IBD can be debilitating and sometimes leads to life-threatening complications.

About BiomX

BiomX is a microbiome drug discovery company developing customized phage therapies that target and destroy harmful bacteria in chronic diseases such as inflammatory bowel disease (IBD) and cancer. We discover and validate proprietary bacterial targets and customize our natural and engineered phage compositions against these targets.

The Company's platforms use computational and synthetic biology and cutting-edge research from Profs. Rotem Sorek, Ph.D., Eran Elinav, M.D., Ph.D., and Eran Segal, Ph.D., of The Weizmann Institute of Science; and Professor Timothy K. Lu, M.D., Ph.D., of The Massachusetts Institute of Technology. Investors in the Company include OrbiMed Israel Incubator LP, Johnson & Johnson Development Corporation Inc., Takeda Ventures, Inc., Seventure Partners, Mirae Asset Global Investments, and SBI.

www.biomx.com

Reference:

[i] [Atarashi et al., Science 358, 359–365 \(2017\)](#)

Company contact:

Assaf Oron
Chief Business Officer

BiomX
+972-54-2228901
assafo@biomx.com

Media contact:

Shai Biran, Ph.D.
MacDougall Biomedical Communications
+1(781)235-3060
sbiran@macbiocom.com

 View original content with multimedia <http://www.prnewswire.com/news-releases/biomx-licenses-novel-bacterial-targets-for-the-treatment-of-inflammatory-bowel-disease-300590144.html>

SOURCE Biomx Ltd.