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JSR has exclusively licensed intellectual property for the treatment and diagnosis of inflammatory bowel disease

Tokyo, Japan – January 30, 2018 – JSR Corporation has been granted an exclusive license for intellectual property from Keio University for the treatment and diagnosis of inflammatory bowel disease (IBD). JSR then granted exclusive licenses of the key intellectual property to BiomX Ltd., a microbiome drug discovery company developing customized phage therapies, to develop and commercialize phage therapies based on the intellectual property.

A team at Keio University, under Professor Kenya Honda, showed that *Klebsiella pneumoniae* strains, which are typically present in the oral cavity and often possess antibacterial resistance, are more frequently found in the gut of patients with IBD compared to healthy individuals. The researchers demonstrated, using animal models, that the bacterial strains could colonize in the gut and induce radical activation of Th1 immune cells which may be a root cause of IBD. These findings may lead to novel therapies as well as diagnostics for IBD.

JSR will develop technologies related to maintaining homeostasis of gut microbiota and in vitro diagnostic products through the JSR-Keio University Medical and Chemical Innovation Center (JKiC). BiomX will develop phage therapy specifically to target and eradicate the IBD-associated, pro-inflammatory gut bacteria. While, phage therapy can target and eradicate specific bacteria, it does not disturb gut microbiome like antibiotic drugs, and is recognized as a valuable therapy to potentially replace antibiotic drugs and to solve antibiotic resistant bacteria issues.

ABOUT JSR CORPORATION

From synthetic rubbers for tires to semiconductor materials, display materials and, life sciences business, materials created by JSR play a role in almost every aspect of daily life. JSR has continuously expanded its business fields by leveraging its proprietary polymer technologies. JSR-Keio University Medical and Chemical Innovation Center (JKiC), a joint research facility, opened in October 2017 to create innovation through investigating the wholly novel concept of fusing medicine and chemistry, which will lead to establish practical technologies that contribute to global society with people living long and healthy lives.

ABOUT KEY INTELLECTUAL PROPERTIES

Keio University joined Leading Advanced Projects for medical innovation (“LEAP”) in Advanced Research and Development Programs for Medical Innovation at Japan Agency for Medical Research and Development (“AMED”) in 2016, whose Research and Development Subject entitled " Development of therapeutic cocktails of bacteria isolated from the gut microbiota" (“AMED-LEAP Research Program”); the key intellectual properties were bore as a part of AMED-LEAP Research Program.

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. For more information please visit www.biomx.com.

