Synthetic Biologics Announces Poster Presentation of C-IBS Candidate Therapy Data at Digestive Disease Week® 2015

ROCKVILLE, Md., Feb. 17, 2015 /PRNewswire/ -- Synthetic Biologics, Inc. (NYSE MKT: SYN), a developer of pathogen-specific therapies for serious infections and diseases, with a focus on protecting the microbiome, today announced that preclinical results supporting the development of SYN-010, the Company’s candidate therapy to reduce the impact of methane producing organisms on constipation-predominant irritable bowel syndrome (C-IBS), will be presented during Digestive Disease Week® (DDW) 2015 in Washington DC on May 16-19. The research was performed at Cedars-Sinai Medical Center under the direction of Mark Pimentel, MD, Director of Cedars-Sinai’s GI Motility Program and Laboratory, and Chairman of Synthetic Biologics’ C-IBS Clinical Advisory Board.

The poster will be available for viewing at DDW in Hall C at the Walter E. Washington Convention Center on Monday, May 18, from 9:30 a.m. to 4:00 p.m. (ET), as part of the “Irritable Bowel Syndrome: Pathophysiology” session.

**Title:** Lovastatin improves stool form in Methanobrevibacter smithii colonized rats with constipation

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Dr. Pimentel led the investigational team at Cedars-Sinai whose discoveries established the foundation of Synthetic Biologics’ C-IBS program. SYN-010 is being developed as a proprietary modified-release formulation of a classical statin that is optimal for reducing methane-production by certain microorganisms (*Methanobrevibacter smithii*) in the gut while avoiding systemic drug absorption. Methane produced by these organisms is perceived as the underlying cause of bloating, pain and constipation associated with C-IBS, and may contribute to the pathology of other diseases. SYN-010 is intended to treat the “core” cause of C-IBS, not just the symptoms.

"We are pleased our C-IBS candidate therapy, SYN-010, continues to gain visibility and recognition among our academic peers as it advances toward the clinic," noted Jeffrey Riley, Chief Executive Officer of Synthetic Biologics. "We are on schedule to initiate a Phase 2 trial of SYN-010 during the second quarter of this year, with topline results anticipated to follow during the second half of this year."

Synthetic Biologics anticipates a 505(b)(2) regulatory pathway for SYN-010 which is designed to reduce the impact of methane producing organisms on C-IBS. An extensive portfolio of granted use patents and pending applications for SYN-010 has been licensed by Cedars-Sinai to the Company. Additional worldwide patent filings covering
composition of matter claims, which were filed by Cedars-Sinai in 2014 and licensed to Synthetic Biologics, could extend patent protection of SYN-010 to 2035.

**About Synthetic Biologics, Inc.**

Synthetic Biologics, Inc. (NYSE MKT: SYN) is a clinical-stage biotechnology company developing pathogen-specific therapies for serious infections and diseases, with a focus on protecting the microbiome. The Company is developing an oral biologic to protect the gut microbiome from intravenous (IV) antibiotics for the prevention of *C. difficile* infection, an oral statin treatment to reduce the impact of methane producing organisms on constipation-predominant irritable bowel syndrome (C-IBS), and in collaboration with Intrexon Corporation (NYSE: XON), a monoclonal antibody combination for the treatment of Pertussis. In addition, the Company is developing a Phase 2 oral estriol drug for the treatment of relapsing-remitting multiple sclerosis (MS) and cognitive dysfunction in MS. For more information, please visit Synthetic Biologics’ website at [www.syntheticbiologics.com](http://www.syntheticbiologics.com).

*This release includes forward-looking statements on Synthetic Biologics’ current expectations and projections about future events. In some cases forward-looking statements can be identified by terminology such as "may," "should," "potential," "continue," "expects," "anticipates," "intends," "plans," "believes," "estimates," and similar expressions. These statements are based upon current beliefs, expectations and assumptions and are subject to a number of risks and uncertainties, many of which are difficult to predict and include statements regarding the intended treatment for SYN-010, continued visibility and recognition of SYN-010, anticipated timing of topline results, and the anticipated 505(b)(2) regulatory pathway for SYN-010. The forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those set forth or implied by any forward-looking statements. Important factors that could cause actual results to differ materially from those reflected in Synthetic Biologics’ forward-looking statements include, among others, the ability of SYN-010 to perform as expected and other factors described in Synthetic Biologics’ report on Form 10-K for the year ended December 31, 2013 and any other filings with the SEC. The information in this release is provided only as of the date of this release, and Synthetic Biologics undertakes no obligation to update any forward-looking statements contained in this release on account of new information, future events, or otherwise, except as required by law.*

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