Spero Therapeutics to Unveil Data on Potentiator Platform at ASM Microbe 2016

June 8, 2016

Cambridge, MA – June 8, 2016 — Spero Therapeutics, LLC, a biopharmaceutical company founded to develop novel therapies for the treatment of bacterial infections, today announced that 15 abstracts on its proprietary therapeutic “Potentiator Platform,” have been accepted for presentation at the first annual American Society for Microbiology (ASM) Microbe 2016 conference taking place June 16–20, 2016 in Boston.

This will be the first time data from Spero’s Potentiator platform will be shared in a scientific forum. The data will include preclinical data on the mechanism of action, efficacy, dosing and safety profiles of SPR741, its lead Potentiator candidate, in combination with several Gram-positive antibiotics.

“Our Potentiator program pioneers a new approach to fighting multi-drug resistant bacterial infections,” said Ankit Mahadevia, M.D., Chief Executive Officer of Spero. “Instead of searching for a new antibiotic, our Potentiator platform may enable us to improve potency, and enhance utility of existing and new molecules where they were previously limited.”

Key data presentations will include:

Friday, June 17, 2:45 PM – 5:15 PM, BCEC, Grand Ballroom West
- New Agents Discovery Summary – Early New Antimicrobial Agents Session
  - Review of Potentiator Platform Data by Dr. Troy Lister, Ph.D.

Saturday, June 18, 12:45 PM – 2:45 PM, BCEC, Hall A
- Resistance Incidence to SPR741 in Combination with Rifampin in Gram-Negative Isolates
- Synergistic Effect of Gram-positive Agents Tested in Combination with a New Polymyxin Derivative (SPR741) against Multidrug-resistant (MDR) Gram-negative (GN) Pathogens
- Mechanism of Action of SPR-741, a Potentiator Molecule for Gram-Negative Pathogens
- Potentiation of Antibiotic Activity by a Novel Cationic Peptide, SPR741
- Bacterial Cytological Profiling of SPR741 Mechanism of Action Is Consistent with Membrane Permeabilization That Allows Penetration of Antibiotics into Gram-Negative (G-) Bacteria
- Projection of SPR741 Human Pharmacokinetics and Efficacious Dose Using Three Species Allometric Scaling
- Impact of Dosing Regimens on the In Vivo Efficacy of Combinations of Novel Antimicrobial Cationic Peptide SPR741 and Rifampicin in Murine Thigh Infection Models
- In Vivo Efficacy of Combinations of Novel Antimicrobial Peptide SPR741 and Rifampicin in Short-Duration Murine Lung Infection Models of Klebsiella pneumoniae Infection
- In Vivo Efficacy of Combinations of Novel Antimicrobial Cationic Peptide SPR741 and Clarithromycin (Clr) in Short-duration Murine Thigh and Lung Models of Gram-negative Infection
- In Vitro Activity of SPR741 Against Recent Clinical Isolates of Escherichia coli and Klebsiella pneumoniae
- In Vitro Activity of SPR741 Against Recent Clinical Isolates of Acinetobacter baumannii
- Potentiation of Antibiotic Activity by Novel Antimicrobial Cationic Peptides: Potency and Spectrum of Activity of SPR741

Monday, June 20, 12:30 PM – 2:30 PM BCEC, Hall A
- The Assessment of SPR741 for Nephrotoxicity in Cynomolgus Monkeys and Sprague-Dawley Rats
- In Vivo Efficacy of Combinations of Novel Antimicrobial Peptide SPR741 and Rifampicin in Short-Duration Murine Thigh Infection Models of Gram-Negative Bacterial Infection

About The Spero Potentiator Program

Spero’s Potentiator Program disrupts the cell membrane of Gram-negative bacteria to permit access of antimicrobial agents previously only active against Gram-positive pathogens. Molecules are designed to disrupt the cell wall of Gram-negative bacteria, permitting Gram-positive antimicrobial agents access through periplasm and cytoplasmic membrane.

About SPR741

SPR741, Spero’s lead Potentiator candidate, is a derivative of the compound Polymyxin B, which interacts with phospholipids to disrupt the cell membrane structure. Unlike the parent molecule, Polymyxin B, which is an antibiotic itself, the potentiator molecule is not designed to cause bacterial cell death on its own. Preclinical studies of SPR741 in combination with Gram-positive antibiotics have shown success in reducing the bacterial burden of infections caused by several common drug-resistant pathogens, including E. coli, Acinetobacter baumannii, and K. pneumoniae. Spero intends to submit an Investigational New Drug (IND) application for its first SPR741 combination in 2016.

About Spero

Spero is a biopharmaceutical company developing a pipeline of novel treatments for bacterial infections and is located in Cambridge, Massachusetts.
company’s pipeline of anti-infective agents is one of the most unique in the industry. Spero’s Potentiator technology is pioneering an entirely new therapeutic platform; this approach has yielded multiple molecules that enhance the spectrum utility and potency of many classes of existing drugs to include possible utility against Gram-negative pathogens. Spero’s DHFR program is exploring the expansion of a novel antifolate’s antibacterial spectrum to treat trimethoprim resistance isolates including resistant Gram-negative pathogens. The investors in Spero include Atlas Ventures, SR One, MRL Ventures, Lundbeckfond Ventures, The Kraft Group, Osage Partners and The Partners Innovation Fund. For more information, please visit www.sperotherapeutics.com.

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