

# MELINTA THERAPEUTICS DEMONSTRATES POTENTIAL OF PYRROLOCYTOSINE CANDIDATE AGAINST GONORRHEA

– *New Antibiotics against Gonorrhea are Needed to Address Growing Antibiotic Resistance* –

**New Haven, Conn, June 5, 2017** – Melinta Therapeutics, a privately held company developing novel antibiotics to treat serious bacterial infections, announced that an oral presentation on the potential of RX-P2177, a novel [pyrrolocytosine](#) antibiotic, in the treatment of gonorrhea was made at ASM Microbe 2017. Dr. Andrea Marra, Melinta Therapeutics’ director of biology and pharmacology, discussed the bactericidal and intracellular killing activity of RX-P2177 against strains of *Neisseria gonorrhoeae* during a symposium on antimicrobial pharmacokinetics and pharmacodynamics. *Neisseria gonorrhoeae* is recognized by the WHO, CDC, and CARB-X as a pathogen for which novel antibiotics are urgently needed.

As reported during the symposium, [Pharmacodynamics in the Intracellular Space](#), RX-P2177 was shown to have strong activity *in vitro* against contemporary clinical gonorrhea isolates, including those resistant to ceftriaxone, ciprofloxacin and azithromycin. The compound’s bactericidal activity extended to intracellular killing in both urethral and cervical epithelial cells, which are common sites of gonorrhea infection. These studies are particularly important because there are no animal models for this infection. Importantly, RX-P2177 was able to reduce gonorrhea burden by 1,000-fold (3-log<sub>10</sub>) in four hours against a CDC-approved reference strain, ATCC49226, as well as other clinical isolates. [Dr. Erin Duffy](#), Melinta’s chief scientific officer stated, “The pyrrolocytosines represent a completely new class of antibiotics designed to bind to the ribosome in a manner unique from antibiotic classes in clinical use. Our focus has been on optimizing them for maximizing bacterial influx while minimizing bacterial efflux to overcome these mechanisms that render bacteria resistant to many antibiotics. By doing so, we have generated compounds active against many multi-drug resistant bacteria that are increasingly difficult to treat. This compound, RX-P2177, has an activity profile and molecular features that suggest it could be useful against *N. gonorrhoeae*, including drug-resistant strains. Given that only one drug – ceftriaxone – remains robust against gonorrhea, it seems new therapies and new classes are needed.”

## About ASM Microbe

ASM Microbe 2017, an integrated meeting of the American Society of Microbiology’s General Meeting and the Interscience Conference on Antimicrobial Agents and Chemotherapy, is taking place June 1–5, 2017 in New Orleans, LA. The meeting is the largest gathering of microbiologists in the world and is designed to provide a one-of-a-kind forum to explore the complete spectrum of microbiology from basic science to translation and application. For more information on the ASM Microbe meeting, please refer to the [conference website](#).

## About the ESKAPE Pathogen Program

Melinta’s ESKAPE pathogen program is built on the Company’s technology platform based on Nobel laureate science developed at Yale University. Melinta owns the exclusive licenses to the three-dimensional structure of the ribosome and has created the drug-design tools and associated discovery process to exploit the ribosome structure. With these, the Company is able both to improve on existing classes and to design and optimize completely new classes of antibiotics. In the ESKAPE pathogen program, Melinta has created three new classes of antibiotics that inhibit the bacterial ribosome,

binding in a validated site that is not the home to commercially available antibiotics. In addition to utilizing this novel binding site, these new classes are also chemically novel; these two features offer a potential advantage vis-à-vis resistance development. Our studies demonstrate that these optimized compounds do not share cross-resistance to currently marketed therapies, including extended-beta-lactamases, carbapenemases and colistin resistance. Compounds in the lead class, known as the pyrrolocytosines, have been optimized to enhance bacterial influx and to minimize bacterial efflux. Further, they are active in many preclinical models of efficacy. Compounds in the class represent many potential target product profiles, including for infections caused by drug-resistant *Neisseria gonorrhoeae*, carbapenem-resistant *Enterobacteriaceae* (CRE) and the full complement of ESKAPE pathogens, which are multidrug- and extremely-drug-resistant *Enterococcus faecium*, *Staphylococcus aureus* (MRSA), *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, *Enterobacter* sp. and *Escherichia coli*. The program is in late lead optimization, focused on selecting at least one development candidate for IND-enabling studies.

### **About Melinta Therapeutics**

Melinta Therapeutics, Inc. is dedicated to saving lives threatened by the global public health crisis of bacterial infections, through the development of novel antibiotics that provide new and better therapeutic solutions. Melinta has submitted NDAs to the FDA for the intravenous and oral formulations of its late-stage investigational antibiotic, Baxdela, for the treatment of acute bacterial skin and skin structure infections (ABSSSI). Baxdela is also being studied in Phase 3 clinical development for the treatment of community-acquired bacterial pneumonia (CABP). Melinta is committed to developing, through the application of Nobel Prize-winning science, a new class of antibiotics designed to overcome the multi- and extremely-drug-resistant pathogens for which there are few to no options, known collectively as ESKAPE pathogens (*Enterococcus faecium*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, *Enterobacter* species and *Escherichia coli*), which cause the majority of life-threatening hospital infections.

Melinta Therapeutics is privately held and backed by Vatera Healthcare Partners ([www.vaterahealthcare.com](http://www.vaterahealthcare.com)) and Malin Corporation plc ([www.malinplc.com](http://www.malinplc.com)) among other private investors. The company is headquartered in New Haven, CT with offices in Lincolnshire, IL. Visit [www.melinta.com](http://www.melinta.com) for more information.