

# Antimicrobials, Multiple Drug Resistance & Antibiotics Resistance

## 4<sup>th</sup> International Conference on Antibiotics R&D, B2B

April 20-21, 2018  
Las Vegas, USA



### Rongshi Li

University of Nebraska Medical Center, USA

#### Fragment-based and natural product-derived antibiotics against ESKAPE pathogens

Antibiotic drug resistance is a major threat to human health in the US and throughout the world. The infectious disease society of America has classified “ESKAPE” (*Enterococcus faecium*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa* and *Enterobacter spp.*) pathogens as those able to escape the biocidal action of antibiotics. Natural products, their derivatives, metabolites, and mimics account for more than half of the new chemical entities for anti-infective drugs. Marine natural products have contributed to eight drugs or cosmeceuticals that were approved by the US Food and Drug Administration and European Medicines Agency. Fragment-based and natural product-based derivatives are powerful for drug design and discovery. This talk will discuss the design, synthesis, and structure-activity-relationships of natural product fragments and their derivatives for the development as potential antibiotics.

#### Biography

Rongshi Li is a Professor of Chemistry and Medicinal Chemistry, Center for Drug Discovery, Department of Pharmaceutical Sciences, College of Pharmacy and Center for Staphylococcal Research, University of Nebraska Medical Center. After spending 14 years in industry advancing from Scientist to Senior Vice President, he moved to Moffitt Cancer Center, Tampa, Florida in 2008. In 2013, he was recruited to University of Nebraska Medical Center. He has received the Distinguished Scientist Award (2016), Grants Award (2013), and New Inventions (2014, 2016). He has over 200 scientific contributions including peer-reviewed articles, US and PCT patents, reviews, book and book chapters, editorial, and published scientific presentations. He has delivered over 100 lectures as a keynote or invited speaker at numerous universities and research institutions, and in national and international symposia. He was a Guest Editor for a special issue of “Natural Product-based Drug Discovery” for Medicinal Research Reviews

[Rongshi.li@unmc.edu](mailto:Rongshi.li@unmc.edu)