

## Defining the Chemistry of Infectious Diseases

I would like to begin by thanking the authors for their contributions and expressing my deep gratitude to all of the conscientious reviewers. In our inaugural year, *ACS Infectious Diseases* published 68 manuscripts covering an incredible diversity of research topics in infectious diseases. There was a good mix of papers from academia, industry, and government, including many international submissions. We expect in the new year to continue to grow and expand our reach.

I am deeply indebted to ACS staff and would like to thank Janice Silverman for conceiving and helping to launch the journal, Kristen Kindrachuk our new Managing Editor, who has been phenomenal, and Renee John in marketing for doing a fantastic job promoting the journal this first crucial year. I am also grateful to our managing support team of Cheryl Shanks and Michal Rottman, who have been extremely helpful in working behind the scenes to make sure everything runs smoothly. Lastly, I thank the Associate Editors, Peter Tonge, Gerry Wright, Elizabeth Winzeler, and Pei-Yong Shi, and everyone on our Editorial Advisory Board for their guidance in establishing *ACS Infectious Diseases* as the first journal to highlight chemistry and its role in the multidisciplinary and collaborative field of infectious disease research.

As we reached out to the infectious disease community in our first year, we were frequently met with the question “What do you mean by ‘chemistry of infectious diseases?’”. As it turns out the phrase ‘chemistry of infectious diseases’ invokes different meanings to different researchers based on their own personal experiences and training. You see, infectious disease research is a truly multifaceted discipline, and to win the fight against infectious diseases, it is imperative that we address each of the contributing aspects including the infectious agents themselves, pathogenesis, prevention, diagnosis, and treatment. Chemistry has long played a central role in the study of infectious disease, particularly with respect to therapeutic and diagnostic development and the biochemistry of pathogens. Chemistry is now playing an increasing role in all areas of infectious disease research. We feel that as *ACS Infectious Diseases* goes into its second year, it is time to re-evaluate our own idea about the phrase ‘chemistry of infectious diseases’. As such, we are striving to be inclusive of all areas of chemistry and are continuing with our aim to unite the chemistry and biology of infectious disease research in a way that makes it readily accessible to the entire infectious disease research community. We reflect these aims in our new revised journal scope. Indeed, the journal’s new expanded scope includes all aspects of chemistry relating to infectious disease research including research on therapeutics, drug resistance, diagnostics, vaccines, pathogens, host–pathogen interactions, drug delivery systems, and other biomedical technology development pertaining to infectious diseases. To ensure the work is accessible to the community, we especially seek research that presents a balance of chemistry and biology.

In 2015, the majority of our manuscripts focused on therapeutics—papers in this important area are always welcome, but I would like to re-emphasize that papers should

contain a balance of chemistry and biology, as well as support for the mechanism of action. This is especially important for target-based approaches where evidence that inhibition of the desired target is the proximal cause of the whole-cell activity will be required. Compounds identified from phenotypic screening programs often have more complex modes of actions, and we understand that a full description of the mechanism of action can be incredibly challenging, but we still insist on some support for their mechanism(s). For diagnostics, we seek manuscripts that emphasize the importance of infection rather than pure technology development. Chemistry has recently entered the sphere of vaccine research, and so our revised scope includes the discovery of synthetic vaccines and the structural, physical, or computational investigations of epitope binding. The study of pathogens and host–pathogen interactions remains an important focus, and we would love to see more papers at the interface of chemistry and infectious disease that employ chemical tools and/or approaches to dissect pathogenesis. A final important area that will be included is the application of chemistry to design new materials and technologies for delivering antimicrobial agents.

In this month’s issue to complement the announcement of our expanded more inclusive scope, we endeavor to highlight the diversity of content including Viewpoints on nanotechnologies for treatment of bacterial biofilms (DOI: [10.1021/acsinfecdis.5b00116](https://doi.org/10.1021/acsinfecdis.5b00116)) and the development of a universal flu vaccine (DOI: [10.1021/acsinfecdis.5b00146](https://doi.org/10.1021/acsinfecdis.5b00146)), along with a Review on computer-aided drug design for tropical diseases (DOI: [10.1021/acsinfecdis.5b00093](https://doi.org/10.1021/acsinfecdis.5b00093)) and original research on topics including computational modeling for antibody design (DOI: [10.1021/acsinfecdis.5b00108](https://doi.org/10.1021/acsinfecdis.5b00108)), drug discovery for fungal pathogens (DOI: [10.1021/acsinfecdis.5b00111](https://doi.org/10.1021/acsinfecdis.5b00111)), development of bacterial quorum sensing modulators (DOI: [10.1021/acsinfecdis.5b00112](https://doi.org/10.1021/acsinfecdis.5b00112)), and more.

We will continue to feature Articles, Letters, Perspectives, Reviews, and Viewpoints, but stay tuned for other journal updates throughout the year including several thematic special issues being planned for 2016. *ACS Infectious Diseases* is serving as a nexus to bring together infectious disease researchers from diverse backgrounds toward a common goal. We plan to build on the great success from our inaugural year and hope you will join us.

Courtney Aldrich, Editor in Chief

### ■ AUTHOR INFORMATION

#### Notes

Views expressed in this editorial are those of the author and not necessarily the views of the ACS.

Received: December 18, 2015

Published: January 8, 2016