

“Human organ chips for disease modeling, drug testing, and personalized medicine”

Haiqing Bai, Ph.D.

Senior Director of Advanced Research
Xellar Biosystems



Dr. Haiqing Bai is the senior Director of Advanced Research at Xellar Biosystems. He received a Ph.D. in pathology from the University of Rochester, and a B.S. in Biology from the University of Science and Technology in China. His Research focuses on working with lung cell biology, gene delivery, 3D tissue models (organoid and organ chips), respiratory infections, lung diseases, and preclinical target identification and drug testing.

Seminar Abstract: The dynamic interplay between structure and function lies at the core of human pathophysiology. Organ-on-a-chip (organ chip) technology—microengineered devices lined with living human cells—offers a powerful platform to replicate tissue- and organ-level architecture and function in vitro, addressing many of the limitations of traditional animal models in drug development. In this seminar, I will provide an overview of the organ chip field and highlight how this transformative technology is reshaping our ability to model human disease, assess drug safety and efficacy, and advance precision medicine. I will also discuss emerging opportunities at the interface of organ chips and artificial intelligence (AI), where data-driven approaches are poised to enhance predictive accuracy and accelerate innovation in biomedical research and therapeutic development.

Tuesday, November 4, 2025 | 8:30am EST | Goergen Hall 101

Zoom Webinar ID: 957 4592 2834 Passcode: BME@UR

Zoom Webinar Link: <https://rochester.zoom.us/j/95745922834>

