Department of Biomedical Engineering
UNIVERSITY OF WISCONSIN–MADISON

Spring 2020 Seminar Series

Systems biology of microbial pathogens

Jason Papin, PhD
Professor, Department of Biomedical Engineering
University of Virginia

New experimental technologies to characterize microbes result in voluminous data on the genotype-phenotype relationship under diverse conditions. Computer models have become indispensable tools to integrate such data and facilitate the generation and testing of hypotheses. We will discuss recent methods to construct and test computer models of microbial metabolism that are being used to identify novel drug targets and characterize the evolution of antibiotic resistance.

ABOUT the SPEAKER

Jason Papin is a Professor in the Department of Biomedical Engineering at the University of Virginia. After his training in Bioengineering at the University of California, San Diego, Jason Papin joined the faculty at the University of Virginia in 2005. His lab works on problems in systems biology, metabolic network analysis, infectious disease, toxicology, and cancer, developing computational approaches for integrating high-throughput data into predictive computational models. He manages a lab with both experimental and computational activities and his research group has had continuous support with funding from the National Institutes of Health, National Science Foundation (including as a CAREER award recipient), Department of Defense, Department of Energy, and several private foundations and companies. Jason is an elected fellow of the Biomedical Engineering Society and the American Institute of Medical and Biological Engineering. He serves as co-Editor-in-Chief of PLOS Computational Biology and on the editorial board of Cell Systems and his service to the scientific community also includes effort as an elected member of the Board of Directors of the Biomedical Engineering Society, as a standing member of the Biodata Management and Analysis (BDMA) NIH study section, and numerous other review panels of federal funding agencies and academic programs. His teaching and mentoring have been recognized with receipt of awards for undergraduate and graduate teaching. Jason's work also involves translational activities with recognition as an inventor on several disclosures of intellectual property, in addition to consulting with multiple biotechnology companies.

Monday, February 3 at noon
1003 Engineering Centers (Tong Auditorium)