### DEPARTMENT OF MICROBIOLOGY & IMMUNOLOGY





## THE GRADUATE SCHOOL | MONTANA STATE UNIVERSITY

#### DEGREES OFFERED

- · M.S. in Microbiology
- Ph.D. in Microbiology
- M.S. in Immunology & Infectious Diseases
- · Ph.D. in Immunology and Infectious



Yellowstone National Park

Department of Microbiology Graduate Program Office Contact Information: 109 Lewis Hall P.O. Box 173520 Phone: 406-994-2902 Fax: 406-994-4926 Email: microbiology@montana.edu Web: www.montana.edu/mbi/graduatestudents

# **Department of Microbiology and Immunology**

The Department of Microbiology & Immunology represents two of the most relevant, dynamic and exciting disciplines in the biological sciences. Covering a broad scope from environmental sciences to biomedical sciences. The mission of the Department of Microbiology and Immunology graduate program is to prepare the next generation of graduate students and fellows to advance our understanding of microbiology as it relates human and animal health, the environment, and to enhance our understanding of immunology and organ responses in non-infectious disease processes. Central to this mission is the integration of cutting-edge research in a comprehensive and nationally recognized curriculum. The department uniquely combines expertise in the study of pathogen biology, virology, host defense, cell biology and the use of small and large animal models in order to address biomedical research questions in their native context. Similar efforts and expertise drive cutting edge research in bioremediation, biofuels, biofilm biology, and geomicrobiology, as well. This diverse range of research has been recognized internationally and is funded by a wide range of sources including the NIH, USDA, NASA, NSF, USDOE, USGS and the Montana Agriculture Experimental Station, among others.

The Department of Microbiology & Immunology is a community of over 200 individuals, whom share a common passion for research and learning. Our program supports 20 faculty and their labs, as well as, 50 graduate students, and a community of post-doctoral fellows, researchers, and undergraduate interns.

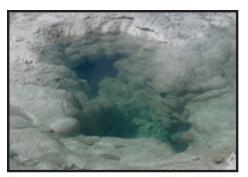
The departmental graduate program provides education and inspiring training that prepares graduates for successful careers in academic research, education, government, and industry. Our integrated program of independent research, graduate courses, and journal club, is complemented by a weekly seminar series, which offers students the opportunity to meet distinguished researchers from across the globe. Successful applicants to the program will have established a commitment to excellence through academic achievements and prior research experience.



The GRADUATE SCHOOL

continued

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Yellowstone National Park courtesy of Steve Hamden



Graduate Student, Eric Dunham, researching mineral/mircobe interations in Iceland.

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Dr. Raina Plowright researching patholgen transmission by bats.

Department of Microbiology, continued

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### FACULTY RESEARCH & INTEREST:

Our faculty are internationally recognized for their research and are committed to teaching, training and inspiring students in the microbiological sciences.

Interests include:

- · Environmental fields such as environmental microbiology, biology of extreme environments, geomicrobiology, aquatic microbiology, microbial communities and ecology
- Medically related areas such as medical mycology, mechanisms of pathogenicity. molecular and cellular immunology, immunoparasitology, virology, leukocyte and cell molecular biology.

### FACULTY

Mark Jutila, Ph.D., Department Head Professor, Immunology & Host Pathogen Interactions Agnieszka Rynda-Apple, Ph.D. Assistant Professor, Bacterial Infections Al Jesatis, Ph.D. Emeritus Professor, Neutrophil Biology & Biochemistry Allen Harmsen, Ph.D. Professor, Pulmonary Immunology and Immunopathology Benfang Lei, Ph.D. Associate Professor, Bacterial Pathogenesis Blake Wiedenheft, Ph.D Assistant Professor, Microbial Genetics Deborah Keil, Ph.D. MLS, Assistant Professor, Immunotoxicology Diane Bimczok, D.V.M., Ph.D. Assistant Professor, Mucosal Immunology Douglas Kominsky, Ph.D Associate Professor, Pathogenesis Ed Schmidt, Ph.D. Professor, Developmental Biology Eric Bovd. Ph.D. Assistant Professor, Microbial Ecology & Geomicrobiology Jovanka Voyich-Kane, Ph.D. Associate Professor, Bacterial Pathogenesis & Host Pathogen Interactions Mark Quinn, Ph.D. Professor, Immunopharmacolgy & Biochemistry Matt Taylor. Ph.D. Assistant Professor, Molecular Virology Matthew Fields, Ph.D., Director of the Center for Biofilm Engineering Professor, Microbial Ecology & Geomicrobiology Mensur Dlakic, Ph.D. Assistant Professor, Microbial Genetics Michael Franklin, Ph.D. Professor, Bacterial Pathogenesis Raina Plowright, Ph.D. Assistant Professor, Ecology of Infectious Disease Sandra Halonen, Ph.D. Associate Professor, Immunology & Host Pathogen Interactions Sara Branco, Ph.D. Assistant Professor, PLACEHOLDER Seth Walk, Ph.D. Assistant Professor, Microbial Ecology of Infectious Disease