

Ines Rauschenbach

Curriculum Vitae 2017

AFFILITATION

Assistant Teaching Instructor
Department of Biochemistry and Microbiology
Rutgers, The State University of New Jersey
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EDUCATION

Rutgers University, New Brunswick, NJ, Microbiology and Molecular Genetics, PhD 2011
Montclair State University, Montclair, NJ, Molecular Biology, BS 2006
Union County College, Cranford, NJ, Education, AA 2003

PROFESSIONAL APPOINTMENTS

2016 – Present	Assistant Teaching Professor, Rutgers University, SEBS, Dept. of Biochemistry and Microbiology
2012 – 2016	Instructor, Rutgers University, SEBS, Dept. of Biochemistry and Microbiology
2011 – 2012	Biology Laboratory Supervisor, Fairleigh Dickinson University
2010 – 2011	Graduate Assistant, Rutgers University, SEBS, Dept. of Biochemistry and Microbiology
2008 – 2010	Teaching Assistant, Rutgers University, SEBS, Dept. of Biochemistry and Microbiology
2006 – 2008	Boyd Woodruff Fellow in Microbiology, Rutgers University

TEACHING EXPERIENCE

Rutgers University

Seminar in Microbiology
Introduction to Microbiology
Applied Microbiology Lab (Coordinator) and Lecture (Guest Lecturer)
General Microbiology Lab (Coordinator) and Lecture
General Microbiology, Lab (Teaching Assistant)
PASS Program

Union County College

Introduction to Biology for Non-Majors
Microbiology for Allied Health (Lecture and Lab)
Anatomy and Physiology II (Lecture and Lab)
Anatomy and Physiology I (Lecture and Lab)
Mathematics Skills and Introductory Algebra I

Middlesex County College

Microbiology for Majors (Lecture and Lab)

Fairleigh Dickinson University

General Biology I for Majors
Bioethics, Graduate Seminar

PUBLICATIONS

- Davis, D., Rauschenbach, I., and Keddis, R. (2017). General Microbiology Laboratory Manual. In Preparation to be Submitted to RUcore.
- Davis, D. and Rauschenbach, I. (2017). Fostering a culture of biosafety in the teaching laboratory. In Preparation.
- Rauschenbach, I., Davis, D., and Keddis, R. (2017). Poster Development and Presentation to Improve Scientific Inquiry and Broaden Effective Scientific Communication Skills. In Preparation.
- Yee, N., Choi, J., Porter, A., Carey, S., Rauschenbach, I., and Harel, A. (2014) Selenate reductase activity in *Escherichia coli* requires Isc iron – sulfur cluster biosynthesis genes. FEMS Microbiology Letters
- Rauschenbach, I., Posternak, V., McConnell, J., Cantarella, P., Starovoytov, V., and Häggblom, M.M. (2013). *Seleniivibrio woodruffii* gen. nov., sp. nov., a selenate and arsenate respiring organism. International Journal of Systematic and Evolutionary Microbiology. 63:3659-65.
- Rauschenbach, I., Häggblom, M.M., Bini, E.B., and Yee, N. (2012). Physiological response of *Desulfurispirillum indicum* S5 to arsenate and nitrate as terminal electron acceptors. FEMS Microbiology and Ecology. 81:156-162.
- Bini, E., Rauschenbach, I., Narasingarao P., Starovoytov V., Land M., Hauser L., Jeffries C.D., Held B., Bruce D., Detter C., Tapia R., Han S., Goodwin L., Mikhailova N., Ivanova N., Pati A., Copeland C., Pitluck S., Pennacchio L., Nolan M., Woyke T., and Häggblom, M.M. (2012) Complete genome sequence of *Desulfurispirillum indicum* strain S5^T. Standards in Genomic Sciences. 5:371-378.
- Rauschenbach, I., Yee, N., Häggblom, M.M., and Bini, E.B. (2011) Energy metabolism and multiple respiratory pathways revealed by genome sequencing of *Desulfurispirillum indicum* strain S5. Environmental Microbiology. 13:1611–1621.
- Rauschenbach, I., Narasingarao, P., and Häggblom, M.M. (2011). *Desulfurispirillum indicum* sp. nov., a selenate and selenite respiring bacterium isolated from an estuarine canal in Southern India. International Journal of Systematic and Evolutionary Microbiology. 61:654-658.

STUDENT RESEARCH MENTORING

Undergraduate Students - Project Title: “Identification and Characterization of S5 and Other Novel Selenate and Arsenate-Respiring Organisms”

Agatha Winiarski, Fall 2016 – Present

Ethan Iverson, Summer 2014 – Present

Ronald Clearie, Summer 2013 – Summer 2014

FELLOWSHIPS, AWARDS, AND HONORS

American Society for Microbiology Biology Scholar (Assessment Residency), 2015

American Society for Microbiology Science Teaching Fellow, 2013 – 2014

Boyd H. Woodruff Graduate Fellowship in Microbiology 2006 – 2008

American Society for Microbiology Travel Award 2010

The Theobald Smith Society Award for Excellence in Graduate Studies 2010

Robinson Award for Excellence in Graduate Education 2010

GRANT SUPPORT

Rutgers University Instructional Computer Fund (\$17,137.55, Co-PI), 2015

Rutgers University Instructional Computer Fund (\$13,714, PI), 2015

Rutgers University Instructional Computer Fund (\$5,700, PI), 2014

NJ Water Research Resources Institute – Research Grant (\$5,700, PI), 2008

PROFESSIONAL PRESENTATIONS

Invited Seminars

Union County College, October 2016

“Applications of Active Learning in the Classroom”

School of Natural Sciences - Biology Seminar, Fairleigh Dickinson University, March 2016

“Biosafety in the Teaching Laboratory – Trials and Tribulations”

ASM Seminar for Postdoctoral Students and Early Career Scientists, ASMCUE, Austin, TX, May 2015

“Speed-Networking Session: Getting Hired, Surviving the Classroom, and Thriving as an Early-Career Educator”

School of Natural Sciences - Biology Seminar, Fairleigh Dickinson University, September 2011

“Growth, Genes, and Genomes – Characterization of a Selenate and Arsenate Respiring Microbe”

Oral Presentations

Assessment Workshop for Undergraduate Directors, SEBS, May 2016

ASM Microbrew, Austin, TX, May 2015

“Putting The Scientific Method Into Practice: A Simple, Inexpensive Exercise.”

Poster Presentations

Goldschmidt Conference – Knoxville, TN, 2010

“Insights Into Anaerobic Respiration from the Genome of the Selenate-Respiring *Desulfurispirillum indicum* strain S5.”

ASM General Meeting – San Diego, CA, 2010

“Energy Metabolism and Multiple Respiratory Pathways Revealed by Genome Sequencing of the Arsenate and Selenate-Respiring *Desulfurispirillum indicum*”

ASM General Meeting - Philadelphia, PA, 2009

“Selenium Oxyanion Reduction – A Ubiquitous Process in the Environment.”

ASM General Meeting - Boston, MA, 2008 “Ubiquitous Microbial Respiration of Selenium Oxyanions in Soils and Subsurface Aquifers”

NEMPET Meeting, NY 2007

“Selenate Respiring Bacterial Communities are Ubiquitous and Phylogenetically Diverse”

Accepted Abstracts

ABSA – Annual Biological Safety Conference, Grapevine, TX 2016

“Biosafety in the Teaching Laboratory”

Attendee

ASMCUE, Denver, CO 2013

Joint Genome Institute Genomics and Metagenomics Workshop, Walnut Creek, CA, 2008

PROFESSIONAL AND COMMUNITY SERVICE ACTIVITIES

Service to Profession

Reviewer Student-Postdoc Travel Award, ASM Microbe 2017
Reviewer Student Travel Awards, SACNAS 2016
ASM Science Teaching Fellowship, Mentor, 2015 - present
Accuracy Review for “MasteringMicrobiology” (Brock Microbiology), 2017
Content Writer for “MasteringMicrobiology” (Brock Microbiology, Tortora Microbiology, and Baumann Microbiology), Pearson, 2014 – Present
Reviewer, Microbiology, A Laboratory Manual (Cappuchino), Pearson, 2015
Reviewer, Microbiology (Wessner, Dupont, Charles), 2014
Reviewer, Microbiology: Systems Approach (Cowan), McGraw Hill, 2013
Reviewer, Microbiology: An Evolving Science (Slonczewski and Foster), Norton, 2013

Service to Department and University

Peer Evaluation Committee, 2017
Course Design, Microbiology of Agricultural Products in NJ, 2017
Microbiology Instructor Search Committee, 2016
Course Design, Introduction to Microbiology, 2016
SEBS Assessment Committee Member, 2015 - Present
Biosafety for Teaching Laboratories, Committee Member, 2014 – Present
Department Instructional Assessment, Co-Chair, 2014 - Present
Rutgers Day, Support for Microbiology Showcase, 2011 – Present

Community Outreach

New Jersey Science Olympiad, Regional Competition, Content Writer and Judge, 2015 - Present
NJ Regional Science Fair, Judge, 2011 – Present
ASM 4H Outreach, Advisor, 2014
NJ Science and Engineering Festival, Volunteer for Microbiology Showcase, 2012
Academic Learning Center, Union County College, Volunteer, 2011 - 2013

PROFESSIONAL AFFILIATIONS

American Society for Microbiology (ASM)
Theobald Smith Society, NJ Branch of ASM