

**Dr. Ines Rauschenbach**  
**Curriculum Vitae**

**AFFILIATION**

Associate Teaching Professor  
Microbiology Undergraduate Program Director

Department of Biochemistry and Microbiology  
School of Environmental and Biological Science (SEBS)  
Rutgers, The State University of New Jersey  
76 Lipman Drive, New Brunswick, NJ 08901  
E-mail: InesRau@sebs.rutgers.edu

**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**

2019 – Present	Microbiology Undergraduate Program Director, Rutgers University, SEBS, Dept. of Biochemistry and Microbiology
2023 – Present	Associate Teaching Professor, Rutgers University, SEBS, Dept. of Biochemistry and Microbiology
2016 – 2023	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	H. Boyd and Jeanette I. Woodruff Endowed Fellowship in Soil and Environmental Microbiology, Rutgers University

**TEACHING EXPERIENCE**

**Rutgers University (July 2012 to Present)**

- Applied Microbiology Lab (Coordinator) and Lecture (Guest Lecturer)
- General Microbiology (Course Coordinator, Lecture and Lab Instructor)
- Introduction to Microbiology (Coordinator and Instructor)
- Introduction to Microbiology Laboratory (Coordinator and Instructor)
- Living in the Microbial World (Coordinator and Instructor)
- Seminar in Microbiology (Coordinator and Instructor)
- Peer Mentoring (Coordinator and Instructor)
- Independent Studies in Microbiology (Instructor)
- Academic Mentoring
- PASS Program and Academic Mentoring

### **Union College (of New Jersey (September 2011 to Present)**

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

### **Middlesex County College (January 2013 to Present)**

Microbiology for Allied Health (Lecture and Lab)  
Microbiology for Majors (Lecture and Lab)  
Anatomy and Physiology II (Lecture and Lab)

### **Fairleigh Dickinson University (July 2011 to June 2012)**

General Biology I for Majors  
Bioethics, Graduate Seminar

## **PUBLICATIONS**

- Endick, K., Addy, T., and Rauschenbach, I. (2025). Reflecting Beyond the Podium: Student Partner – Faculty – Teaching Institute Collaboration. *International Journal for Students as Partners*. Submitted.
- Addy, T., Dutta, S., Gumrukcu, S., Harris, K. Brown-Murphy, M., Rauschenbach, I., Tabanli, S., Vera, L., Wicks, E., and Yang, J. (2025) Becoming a More Inclusive Instructor: Learning from Faculty Reflections on Students' Perspectives. *Journal of Diversity in Higher Education*. (Accepted)
- Addy, T., Quillen, C., Luxmikanthan, S., Kornienko, A., Cantor, D., Morin, X., Rauschenbach, I., Scala, C., Yang, J., and Stein, L. (2025) Student Attitudes & Perceptions of Learning When Completing Activities That Integrate Generative Artificial Intelligence. *Journal on Excellence in College Teaching*. (Submitted)
- Rauschenbach, I. (2025) Open Access Textbook: Introduction to Microbiology Laboratory Manual. Submitted.
- Rauschenbach, I. (2025) Open Access Textbook: Introduction to Microbiology. In preparation.
- Keddis, R. and Rauschenbach, I. (2022). Science Talk to Non-Scientists – Utilizing Factsheets as Means of Encouraging Communication to Non-Scientist Audiences. In Preparation.
- VanEtten, J., Keddis, R., Lisa, J., and Rauschenbach, I. (2022). Introduction to Microscopy: Using Protist Diversity. *Journal of Microbiology and Biology Education*. doi: 10.1128/jmbe.00142-21
- Keddis, R. and Rauschenbach, I. (2020). General Microbiology Laboratory Manual. In RUCore. doi: 10.7282/t3-fzc0-a870
- Rauschenbach, I., Davis, D., and Keddis, R. (2018). Poster Development and Presentation to Improve Scientific Inquiry and Broaden Effective Scientific Communication Skills. *Journal of Microbiology and Biology Education*. doi:10.1128/jmbe.v19i1.1511
- 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*. 361:138-143.
- 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. (2011) Complete genome sequence of *Desulfurispirillum indicum* strain S5<sup>T</sup>. *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.

## **RESEARCH/MENTORING**

### **Research Collaborations**

Project Title: “Perspectives on instruction and engagement: A quantitative-examination of students’ academic performance and engagement experiences in STEM courses”

Collaboration with STEM division at Union County College  
Summer 2019 - 2021

Project Title: “Effectiveness of Study Groups on the Achievement of Students in General Microbiology”

Collaboration with the academic learning centers at Rutgers University  
Lauren Hall, 2018

### **Undergraduate Students**

Project Title: “Quantifying the Effect of Different Time and Temperature Exposures on Viability of Bacterial Cultures Removed From -80° C Storage.”

Elizabeth Enriquez, Fall 2025 to present  
GH Cook Thesis Readers

Project Title: “Microbial Art”

Sammi Russo  
National ASM Agar Art Winner, 10<sup>th</sup> Place Professional Division

Project Title: “Microbial Analysis of FMT restored mice”

Abhijna Bhat, Fall 2024  
GH Cook Thesis Readers

Project Title: “The Impact of Endosymbiont Composition on Insect Olfactory and Gustatory Behavior”

Safiyah Salama, Spring 2023 to Spring 2024  
GH Cook Thesis Reader

Project Title: “Identifying Dysregulated Chemosensory Genes as a Consequence of Bacterial Infection”

Muqaddasa Tariq, Spring 2023 to Spring 2024  
GH Cook Thesis Reader

Project Title: “The Transfer Ability of Phi6 (A Surrogate Model for Enveloped Viruses) Between Surfaces and Gloves”

Sachit Sudharsan, Spring 2023 to Spring 2024  
GH Cook Thesis Reader

Project Title: “Undergraduate Perceptions of the Microbial Risks of Tattooing and Piercing Body Art, A Literature Review and Public Health Analysis”

Aja Martinez, Fall 2022 – Spring 2023  
Faculty Advisor for SAS Interdisciplinary Honors Thesis

Project Title: “The Importance of Understanding Newly Discovered Toxins: A Literary Analysis on the Tas1 Enzyme

Thomas Urbanski, Spring 2023  
Biology Independent Studies, Thesis Advisor

Project Title “Evaluating the Biological Activity of Novel Inorganic Antimicrobial Compounds for Consumer Products”

Allison Almeda-Ahmadi, Spring 2021  
Honors in Biology Thesis, Committee Member

Project Title: “The Microbiome of Fermented Products”

Cindy Fernandez, Fall 2020  
Independent Studies in Microbiology, Advisor

Project Title: “The Genetic and Biochemical Predisposing Factors for Hepatomegaly”

Saleh Houshmand, Fall 2019 – Spring 2020  
Faculty Advisor for SAS Interdisciplinary Honors Thesis

Project Title: “Bioremediation and Drop Collapse Assays”

Daniel Bayatmakou, Spring 2020  
Diego Torres, Fall 2019  
Research in Microbiology, Advisor

Project Title: “Isolation of *Azotobacter* from soil – An inquiry-based laboratory exercise”

Bernardo Perez, 2019

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

Sean Coulson, Fall 2017  
Agatha Winiarski, Fall 2016 – 2017  
Ethan Iverson, Summer 2014 – 2015  
Ronald Clearie, Summer 2013 – Summer 2014

### **FELLOWSHIPS, AWARDS, AND HONORS**

Institute for Teaching, Innovation, and Inclusive Pedagogy Co-Intelligence Teaching Fellowship (\$2000 Research Funding), Rutgers, 2025

American Society for Microbiology Training-of-Leaders Scholars Program, 2023 - 2024

Recipient Presidential Teaching Award, Rutgers, 2021

Recipient Rutgers SEBS Excellence in Teaching Awards, 2021

Teaching Excellence Network Course Transformation Summer Institute, Summer 2021

Rutgers Provost Teaching Fellowship (\$2000 Research Funding), Summer 2021 – Spring 2022

Recipient SEBS Team Excellence Award (\$500 Research Funding), 2020

Faculty Learning Community, Spring Cohort, Rutgers University, Spring 2020

Rutgers Leadership Academy, Fall 2019 – Spring 2020

Effectiveness of Teaching, American Council for Undergraduate Education Cohort Rutgers University, 2018 - 2019

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

American Society for Microbiology Science Teaching Fellow, 2013 – 2014

### **GRANT SUPPORT**

Rutgers Library Open Access Educational Resource Textbook Development (\$3,500), 2022

TEN Network Publication Support (\$800), 2022

SEBS Seed Grant, Living Campus Initiative (\$1133), 2019

Rutgers Library Open Access Educational Resource Development (\$1,000), 2019  
Synchronous Immersive Lecture Hall (\$2,500 Research Support, \$7578 per semester support for teaching fellow) 2018 – Spring 2022  
Rutgers University Instructional Computer Fund (\$13,000.25, Co-PI), 2017  
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

## **PROFESSIONAL PRESENTATIONS**

### **Organized Workshop**

Rutgers University, June 2019  
“Use of ELNs in the Teaching Laboratory”

### **Invited Seminars**

ASMCUE, ASM Conference for Undergraduate Educators, November 2024  
“How Peer Mentoring Enhances Microbiology Education”  
Rutgers Active Learning Symposium, 2022  
“E-Portfolios - No quizzes are exams in a large STEM Class!? Is that even possible?”  
Union County College, September 2019  
“Student Engagement in the Traditional Lecture Setting”  
Union County College, April 2019  
“Fostering Collaborations in the College Classroom”  
Rutgers Online Teaching Conference 2019  
“Use of ELNs in the Teaching Laboratory”  
Union County College, October 2016/2017/2018  
“Applications of Active Learning in the Classroom”  
School of Natural Sciences - Biology Seminar, Fairleigh Dickinson University, 2016  
“Biosafety in the Teaching Laboratory – Trials and Tribulations”  
ASM Seminar for Postdoctoral Students and Early Career Scientists, ASMCUE, TX, May 2015  
“Speed-Networking Session: Getting Hired, Surviving the Classroom, and Thriving as an Early-Career Educator”

### **Oral Presentations**

Rutgers Active Learning Symposium, May 2022  
“E-Portfolios – No Quizzes or Exams in a STEM Class. Is That Even Possible?”  
CSAM Professional Development Fair, Montclair State University, October 2019  
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**

ASMCUE, ASM Conference for Undergraduate Educators, November 2024  
“E-Portfolios and Individualized Learning in a Large STEM Class”

### **Featured Interviews**

SEBS Leads with Number of Undergraduate Students Enrolled in Face-to-Face Instruction During the Pandemic. 2020.

<https://sebsnjaesnews.rutgers.edu/2020/11/sebs-leads-with-number-of-undergraduate-students-enrolled-in-face-to-face-instruction-during-the-pandemic/>

Preparing students for where the world is going...digital first. 2019.

<https://blog.labarchives.com/2019/09/27/preparing-students-for-where-the-world-is-going-digital-first/>

### **Accepted Abstracts**

ASMCUE – ASM Conference for Undergraduate Educators, WA 2020  
“Probiotics and the Teaching Laboratory” (Microbrew)  
ASMCUE – ASM Conference for Undergraduate Educators, WA 2020  
“Laboratory Education for Digital Natives” (45-minute Education Session)  
ABSA – Annual Biological Safety Conference, Grapevine, TX 2016  
“Biosafety in the Teaching Laboratory”

### **Attendee**

ASM Microbe, June 2024  
Microinequities in Teaching, January 2024  
Microinequities, October 2023  
Culturally Responsive Course Design and Teaching Strategies, Sept. 2023  
Rutgers Virtual Learning Community Book Club, Fall 2022  
Visual Design for Online Courses, June 2021  
Equity in Education: A Student’s Perspective, May 2021  
Creating an Anti-Racist Classroom, February 2021  
ASMCUE Virtual, June 2020  
Using Evidence to Evaluate Teaching, CTAAR Rutgers University, January 2020  
Active Learning Approaches to STEM Writing Intensive Courses, November 2019  
Top Hat Webinars, Oct. to Dec. 2019  
Developing your Teaching Portfolio for Promotion, Oct. 2019  
SEBS Core Curriculum Writing Courses, Sept. 2019  
Active Learning Seminar, Oct. 2018  
National Center for Teaching Science with Case Studies, June 2018  
Rutgers Active Learning Symposium, May 2017  
ASMCUE Undergraduate Education Conference, Denver, CO 2013

## **PROFESSIONAL AND COMMUNITY SERVICE ACTIVITIES**

### **Service to Profession**

Content Accuracy Reviewer, Microbiology, 2025 - present  
Rutgers Connection Network (RCN) Mentoring Program, 2018 – 2019, 2023 – present  
Rutgers Online Teaching Certificate, 2023  
Content Reviewer, Wiley Anatomy and Physiology, 2023 - present  
Rutgers Inclusive Leadership Academy, 2023  
American Society for Microbiology Teaching and Learning Community, 2023  
OASIS Leadership and Professional Development Program, 2022 to 2023  
Content Reviewer, Biology and Microbiology, McGraw Hill, 2022 - 2023  
Ad hoc Reviewer, Journal of Microbiology and Biology Education, 2021 – present  
Ad hoc Reviewer, Journal Soil Biology and Biochemistry, 2021 - present  
Content Writer for Online Learning Platform “MasteringMicrobiology” (Brock Microbiology, Tortora Microbiology, Baumann, and Norman-McKay Microbiology), Pearson, 2014 – Present  
Content Writer, Learning Outcomes Microbiology Majors, Cengage, 2021  
Reviewer for Innovations in Teaching and Education Seed Grant, Rutgers University, 2020  
ASM Teaching Undergraduate Biology Webinar Series, Moderator, 2020  
Correlations Reviewer for Brock Microbiology, 16<sup>th</sup> Edition, Pearson, 2020  
National Faculty Advisor – Learning Assistant Program, 2019 - present  
Chapter Reviewer for Microbiology: An Evolving Science (Slonczewski and Foster), Norton, 2019  
Abstract Reviewer ASM Microbe 2018 - 2019  
National Science Foundation NSF-GRFP Reviewer, 2018 – 2021  
Reviewer, Microbiology, Brock Microbiology, Pearson, 2018, 2020  
Reviewer Student-Postdoc Travel Award, ASM Microbe 2017

ASM Science Teaching Fellowship, Mentor, 2015 - 2019  
Accuracy Review for “Mastering Microbiology” (Brock Microbiology), 2017  
Reviewer Student Travel Awards, SACNAS 2016  
Reviewer, Microbiology, A Laboratory Manual (Cappuccino), 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**

Online Teaching Certificate, American Council for Undergraduate Education Cohort Rutgers University, 2023  
Rutgers Facilitator of Teaching Evaluations, 2024 – present  
Rutgers Academic Integrity Facilitator, 2023 – present  
Rutgers Teaching Excellence Network, Group on Informal Feedback on Teaching, 2023 - present  
SEBS NTT Professional Development Committee, Chair, 2023 - present  
SEBS Structure and Governance Committee Member, 2020 - present  
SEBS Instructional Assessment Committee Member, 2015 – 2019, 2020 - present  
SEBS First Year Advisor, 2020 - present  
SEBS Curriculum and Educational Policy Committee, 2019 – Present (Vice Chair 2023 – 2024)  
Microbiology Undergraduate Program Director 2019 – Present  
Search Committee for Microbiology Instructor, Chair, 2021  
Course Design, Peer Mentoring in Microbiology, 2020  
Course Design, Senior Survey in Microbiology, 2020  
Peer Discussant for New Faculty, Summer 2019  
SEBS Strategic Planning Committee, Undergraduate Education, Spring 2019  
Search Committee, Director of Integrated Academic Programs, 2018  
Course Design, Introduction to Microbiology (Laboratory Course), 2018  
Search Committee Microbiology Instructor, Chair, 2017  
New Brunswick Faculty Council, 2017 – 2020  
Academic Integrity Task Force, Rutgers University, Co-Chair, 2017 – 2018  
UBD Canvas Pilot Rutgers University, 2018  
AKINDI Canvas Pilot, Rutgers University, 2017  
Faculty Peer Evaluation Committee, 2017  
Course Design, Introduction to Microbiology (Lecture Course), 2017  
Course Design, Microbiology of Agricultural Products in NJ, Core Certification 2017  
Microbiology Instructor Search Committee, 2016  
Course Design, Introduction to Microbiology, 2016  
Biosafety for Teaching Laboratories, Committee Member, 2014 – Present  
Department Instructional Assessment, Co-Chair, 2014 – Present

### **Community Outreach**

Rutgers Day Program, 2012 - present  
New Jersey Science Olympiad, Regional Competition, Content Writer and Judge, 2015 – present  
NJ Regional Science Fair, Judge, 2011 – 2014  
ASM 4H Outreach, Advisor, 2014

### **PROFESSIONAL AFFILIATIONS**

Rutgers Teaching Excellence Network  
Rutgers SAS TRIAD Coalition  
Rutgers Active Learning Community  
American Society for Microbiology (ASM)