CURRICULUM VITAE

Steven Thomas Gregory, PhD

Associate Professor
Department of Cell and Molecular Biology
College of the Environment and Life Sciences
The University of Rhode Island
Kingston, RI 02881
E-mail: stgregory@uri.edu

Undergraduate Education
BA, Cell and Molecular Biology, 1985
State University of New York at Buffalo

Graduate Education
PhD, Cell and Molecular Biology, 1992
State University of New York at Buffalo
Roswell Park Memorial Institute Division
Advisor: Edward A. Morgan, PhD
Dissertation Title: "Recessive antibiotic-resistance mutations in ribosomal RNA genes of *Escherichia coli* and *Saccharomyces cerevisiae*"

Postgraduate Training
Postdoctoral Research Associate
Department of Molecular Biology, Cell Biology and Biochemistry
Brown University, Providence, RI
Mentor: Albert E. Dahlberg, MD, PhD
1991-1996

Academic Appointments

Assistant Professor of Medical Science (Research)
Department of Molecular Biology, Cell Biology and Biochemistry
Brown University, Providence, RI
1996-2012

Associate Professor of Medical Science (Research)
Department of Molecular Biology, Cell Biology and Biochemistry
Brown University, Providence, RI
2012-2020

Visiting Lecturer
Department of Cell and Molecular Biology
The University of Rhode Island
Kingston, RI
2015-2016

Visiting Associate Professor
Department of Cell and Molecular Biology
The University of Rhode Island
Kingston, RI
June 26, 2016-June 25, 2017

Associate Professor
Department of Cell and Molecular Biology
The University of Rhode Island
Kingston, RI
June 25, 2017-present

Tenure awarded July 1, 2020

University Teaching (Brown University)

Bio 220	Topics in Biochemistry (seminar)	Spring 1997, 1999
Bio 221	Topics in Molecular Biology (seminar)	Fall 1999
Bio 51	Introductory Microbiology (team taught)	Spring 2002
Bio 1270	Advanced Biochemistry (guest lecturer)	Fall 2010-2014
Bio 1950	Undergraduate Research	Fall 2014

University Teaching (The University of Rhode Island)

BCH 311	Introductory Biochemistry	Fall 2015-2016, Spring 2016
BCH 311H	Honors Introductory Biochemistry	Fall 2015, Spring 2016
MIC 211	Introductory Microbiology	Spring 2016
CMB 311	Introductory Biochemistry	Fall 2016-2018, Spring 2018-2019
CMB 311H	Honors Introductory Biochemistry	Fall 2016-2017, Spring 2017-2022
CMB 426	Structural Biochemistry	Fall 2018-2022
CMB 491	Research in Cell and Molecular Biology	Fall 2016-2021, Spring 2017-2022
BES 503	CMB Laboratory Rotations	Fall 2020-Fall 2022

Course Development

CMB 426	Structural Biochemistry. Familiarizes students with principles of macromolecular structure and experimental methods used in structure determination.
CMB 526	Structural Biochemistry. A graduate-level version of CMB 426.
BES 503	CMB Laboratory Rotations. First-year graduate students engage in research conducted in laboratories in the CMB specialization of the BES graduate program.

Research Mentoring of Undergraduate Students

Brown University, 10 students

The University of Rhode Island, 21 students

RI-INBRE SURF, The University of Rhode Island, 6 students

Science and Engineering Fellows, The University of Rhode Island, 2 students

Student Awards Through The Undergraduate Research & Innovation (URI)^2 Program

Samantha Donahue, 2016, "*Mutagenesis of the Peptidyltransferase Active Site of the Thermus thermophilus Ribosome*"

Sophie Silivia, 2019, "*Site-Directed Mutagenesis of Rhodothermus marinus rplD Mutation into Thermus thermophilus*"

Jacqualine Cerbone and Caroline Curll, 2020, "*Ribosome Assembly Investigated By Site-Directed Mutagenesis of 16S Ribosomal RNA*"

Jacqualine Cerbone and Caroline Curll, 2021, "*Multicopy Suppression Of A Ribosomal Protein Deletion Mutant*"

Enhancement of Graduate Research Award (EGRA) Funding

Kelly McManus, MS URI '21

Graduate Student Mentoring, The University of Rhode Island

Kelly McManus, MS URI '21

Thesis Project Title: "*The role of ribosomal protein uS17 in 30S ribosomal subunit assembly*"

Erin Killeavy, PhD URI '23

Dissertation Project Title: "*Protein-RNA interactions modulating the conformation of the peptidyltransferase active site of the ribosome*"

Brenna Levesque, PhD URI '26

Daniel Banas, MS URI '23 (co-mentor with Jodi Camberg, The University of Rhode Island)

Thesis Project: "*Antibiotic tolerance by multidrug resistant uropathogenic Escherichia coli during quiescence*"

Presentations by Lab Members at International Meetings

Samantha Donahue, "*Rational Design of Effective Chloramphenicol Derivatives*", Ribosomes 2019, Mérida, Yucatán, Mexico, January 2019

Erin Killeavy, "*Tiamulin-Resistant Mutants of Thermus thermophilus*", Ribosomes 2019, Mérida, Yucatán, Mexico, January 2019

Seth Clough, "*Temperature-Dependent Antibiotic Sensitivity of Thermus thermophilus*", Ribosomes 2019, Mérida, Yucatán, Mexico, January 2019

Erin Killeavy, "*Ribosomal Proteins Modulating the Structure of the Peptidyltransferase Active Site*", RNA Society Annual Meeting, Boulder, CO, June 2022

Original Publications in Peer-Reviewed Journals

1. **Gregory ST, Lieberman KR, Dahlberg AE.** 1994. Mutations in the peptidyl transferase region of *E. coli* 23S rRNA affecting translational accuracy. *Nucleic Acids Research* **22:**279-284.
2. **Gregory ST, Dahlberg AE.** 1995. Effects of mutations at position 36 of $tRNA^{Glu}$ on missense and nonsense suppression in *Escherichia coli*. *FEBS Letters* **361:**25-28.
3. **Gregory ST, Dahlberg AE.** 1995. Nonsense suppressor and antisuppressor mutations at the 1409-1491 base pair in the decoding region of *Escherichia coli* 16S rRNA. *Nucleic Acids Research* **23:**4234-4238.
4. **Gregory ST, O'Connor M, Dahlberg AE.** 1996. Functional *Escherichia coli* 23S rRNAs containing processed and unprocessed intervening sequences from *Salmonella typhimurium*. *Nucleic Acids Research* **24:**4918-4923.
5. **Gregory ST, Dahlberg AE.** 1999. Mutations in the conserved P loop perturb the conformation of two structural elements in the peptidyl transferase center of 23S ribosomal RNA. *Journal of Molecular Biology* **285:**1475-1483.
6. **Gregory ST, Dahlberg AE.** 1999. Erythromycin resistance mutations in ribosomal proteins L4 and L22 perturb the higher order structure of 23S ribosomal RNA. *Journal of Molecular Biology* **289:**827-834.
7. **Gregory ST, Cate JH, Dahlberg AE.** 2001. Streptomycin-resistant and streptomycin-dependent mutants of the extreme thermophile *Thermus thermophilus*. *Journal of Molecular Biology* **309:**333-338.
8. **Gregory ST, Cate JH, Dahlberg AE.** 2001. A spontaneous, erythromycin-resistance mutation in a 23S rRNA gene, *rrlA*, of the extreme thermophile *Thermus thermophilus*. IB-21. *Journal of Bacteriology* **183:**4382-4385.
9. **O' Connor M, Gregory ST, RajBhandary UT, Dahlberg AE.** 2001. Altered discrimination of start codons and initiator tRNAs by mutant initiation factor 3. *RNA* **7:**1-10.
10. **Gabashvili IS, Gregory ST, Valle M, Grassucci R, Worbs M, Wahl MC, Dahlberg AE, Frank J.** 2001. The polypeptide tunnel system in the ribosome and its gating in erythromycin resistance mutants of L4 and L22. *Molecular Cell* **8:**181-188.
11. **Thompson J, Kim DF, O'Connor M, Lieberman KR, Bayfield MA, Gregory ST, Green R, Noller HF, Dahlberg AE.** 2001. Analysis of mutations at residues A2451 and G2447 of 23S rRNA in the peptidyl transferase active site of the 50S ribosomal subunit. *Proceedings of the National Academy of Sciences of the USA* **98:**9002-9007.
12. **Cameron DM, Thompson J, Gregory ST, March PE, Dahlberg AE.** 2004. Thiostrepton-resistant mutants of *Thermus thermophilus*. *Nucleic Acids Research* **32:**3220-3227.
13. **Cameron DM, Gregory ST, Thompson J, Dahlberg AE.** 2004. *Thermus thermophilus* L11 methyltransferase, PrmA, is dispensable for growth and preferentially modifies free ribosomal protein L11 prior to ribosome assembly. *Journal of Bacteriology* **186:**5819-5825.
14. **O'Connor M, Gregory ST, Dahlberg AE.** 2004. Multiple defects in translation associated with altered ribosomal protein L4. *Nucleic Acids Research* **32:**5750-5756.
15. **Gregory ST, Carr JF, Dahlberg AE.** 2005. A mutation in the decoding center of *Thermus thermophilus* 16S rRNA suggests a novel mechanism of streptomycin resistance. *Journal of Bacteriology* **187:**2200-2202.

16. **Carr JF, Gregory ST, Dahlberg AE.** 2005. Severity of the streptomycin resistance and streptomycin dependence phenotypes of ribosomal protein S12 of *Thermus thermophilus* depends on the identity of highly conserved amino acid residues. *Journal of Bacteriology* **187:**3548-3550.
17. **Gregory ST, Carr JF, Rodriguez-Correa D, Dahlberg AE.** 2005. Mutational analysis of 16S and 23S rRNA genes of *Thermus thermophilus*. *Journal of Bacteriology* **187:**4804-4812.
18. **Suh M-J, Hamburg D-M, Gregory ST, Dahlberg AE, Limbach PA.** 2005. Extending ribosomal protein identifications to unsequenced bacterial strains using matrix-assisted laser desorption/ionization mass spectrometry. *Proteomics* **5:**4818-4831.
19. **Carr JF, Hamburg D-M, Gregory ST, Limbach PA, Dahlberg AE.** 2006. Effects of streptomycin resistance mutations on posttranslational modification of ribosomal protein S12. *Journal of Bacteriology* **188:**2020-2023.
20. **Demirci H, Gregory ST, Dahlberg AE, Jogl G.** 2007. Recognition of ribosomal protein L11 by the protein trimethyltransferase PrmA. *EMBO Journal* **26:**567-577.
21. **Demirci H, Gregory ST, Dahlberg AE, Jogl G.** 2008. Multiple-site trimethylation of ribosomal protein L11 by the PrmA methyltransferase. *Structure* **16:**1059-1066.
22. **Demirci H, Gregory ST, Dahlberg AE, Jogl G.** 2008. Crystal structure of the *Thermus thermophilus* 16S rRNA methyltransferase RsmC in complex with cofactor and substrate guanosine. *Journal of Biological Chemistry* **283:**26548-26556.
23. **Monshupanee T, Gregory ST, Douthwaite S, Chungjatupornchai W, Dahlberg AE.** 2008. Mutations in the conserved helix 69 of 23S rRNA of *Thermus thermophilus* that affect capreomycin resistance but not posttranscriptional modifications. *Journal of Bacteriology* **190:**7754-7761.
24. **Gregory ST, Dahlberg AE.** 2008. Transposition of an insertion sequence, IS*Tth7*, in the genome of the extreme thermophile *Thermus thermophilus* HB8. *FEMS Microbiology Letters* **289:**187-192.
25. **Gregory ST, Carr JF, Dahlberg AE.** 2009. A signal relay between ribosomal protein S12 and elongation factor EF-Tu during decoding of mRNA. *RNA* **15:**208-214.
26. **Gregory ST, Dahlberg AE.** 2009. Genetic and structural analysis of base substitutions in the central pseudoknot of *Thermus thermophilus* 16S ribosomal RNA. *RNA* **15:**215-223.
27. **Demirci H, Belardinelli R, Seri E, Gregory ST, Gualerzi C, Dahlberg AE, Jogl G.** 2009. Structural rearrangements in the active site of the *Thermus thermophilus* 16S rRNA methyltransferase KsgA in a binary complex with 5'-methylthioadenosine. *Journal of Molecular Biology* **388:**271-282.
28. **Gregory ST, Demirci H, Belardinelli R, Monshupanee T, Gualerzi C, Dahlberg AE, Jogl G.** 2009. Structural and functional studies of the *Thermus thermophilus* 16S rRNA methyltransferase RsmG. *RNA* **15:**1693-1704.
29. **Demirci H, Larsen LH, Hansen T, Rasmussen A, Cadambi A, Gregory ST, Kirpekar F, Jogl G.** 2010. Multi-site-specific 16S rRNA methyltransferase RsmF from *Thermus thermophilus*. *RNA* **16:**1584-1596.
30. **Demirci H, Murphy IV F, Belardinelli R, Kelley AC, Ramakrishnan V, Gregory ST, Dahlberg AE, Jogl G.** 2010. Modification of 16S ribosomal RNA by the KsgA

methyltransferase restructures the 30S subunit to optimize ribosome function. *RNA* **16:**2319-2324.

31. **O'Connor M, Gregory ST.** 2011. Inactivation of the RluD pseudouridine synthase has minimal effects on growth and ribosome function in wild-type *Escherichia coli* and *Salmonella enterica*. *Journal of Bacteriology* **193:**154-162.
32. **Agarwal D, Gregory ST, O'Connor M.** 2011. Error-prone and error-restrictive mutations affecting ribosomal protein S12. *Journal of Molecular Biology* **410:**1-9.
33. **Demirci H, Murphy F, Murphy E, Gregory ST, Dahlberg AE, Jogl G.** 2013. A structural basis for streptomycin-induced misreading of the genetic code. *Nature Communications* **4:**1355-138.
34. **Demirci H, Sierra RG, Laksmono H, Shoeman RL, Botha S, Barends TRM, Nass K, Schlichting I, Doak RB, Gati C, Williams GJ, Boutet S, Messerschmidt M, Jogl G, Dahlberg AE, Gregory ST, Bogan MJ.** 2013. Serial femtosecond X-ray diffraction of 30S ribosomal subunit microcrystals in liquid suspension at ambient temperature using an X-ray free-electron laser *Acta Crystallographica* F69, 1066-1069.
35. **Demirci H, Wang L, Murphy FV, Murphy EL, Carr JF, Blanchard SC, Jogl G, Dahlberg AE, Gregory ST.** 2013. The central role of protein S12 in organizing the structure of the decoding site of the ribosome. *RNA* **19:**1791–1801.
36. **Demirci H, Murphy FV, Murphy EL, Connetti JL, Dahlberg AE, Jogl G, Gregory ST.** 2014. Structural analysis of base substitutions in *Thermus thermophilus* 16S rRNA conferring streptomycin resistance. *Antimicrobial Agents and Chemotherapy* **58:**4308–4317.
37. **Gregory ST, Connetti JL, Carr JF, Jogl G, Dahlberg AE.** 2014. Phenotypic interactions among mutations in a *Thermus thermophilus* 16S rRNA gene detected with genetic selections and experimental evolution. *Journal of Bacteriology* **196:**3776–3783.
38. **Carr JF, Gregory ST, Dahlberg AE.** 2015. Transposon mutagenesis of the extremely thermophilic bacterium *Thermus thermophilus* HB27. *Extremophiles* **19:**221-228.
39. **Agarwal D, Kamath D, Gregory ST, O'Connor M.** 2015. Modulation of decoding fidelity by ribosomal proteins S4 and S5. *Journal of Bacteriology* **197:**1017-1025.
40. **Carr JF, Danziger ME, Huang AL, Dahlberg AE, Gregory ST.** 2015. Engineering the genome of *Thermus thermophilus* using a counter-selectable marker. *Journal of Bacteriology* **197:**1135-1144.
41. **Carr JF**, **Lee HJ**, **Jaspers JB**, **Dahlberg AE**, **Jogl G**, **Gregory ST**. 2015. Phenotypic suppression of streptomycin resistance by mutations in multiple components of the translation apparatus. *Journal of Bacteriology* **197**:2981–2988.
42. **VanNice J, Gregory ST, Kamath D, O'Connor M.** 2016. Alterations in ribosomal protein L19 that decrease the fidelity of translation. *Biochimie* **128-129:**122-126.
43. **Kamath D, Gregory ST, O'Connor M.** 2017. The loop 2 region of ribosomal protein uS5 influences spectinomycin sensitivity, translational fidelity, and ribosome biogenesis. *Antimicrobial Agents and Chemotherapy* **61:**e01186-16.
44. **Kamath D, Allgeyer BB, Gregory ST, Bielski MC, Roelofsz DM, Sabapathypillai SL, Vaid, N, O'Connor M.** 2017. The C-terminus of ribosomal protein uS4 contributes to small ribosomal subunit biogenesis and the fidelity of translation. *Biochimie* **138:**194-201.

45. **Killeavy EE, Jogl G, Gregory ST.** 2020. Tiamulin-resistant mutants of the thermophilic bacterium *Thermus thermophilus*. *Antibiotics*, **9:**313.
46. **Younkin AD, Gregory ST, O'Connor M.** 2020. Alterations in the ribosomal protein bL12 of *E. coli* affecting the initiation, elongation and termination of protein synthesis. *Biochimie* **175:**173-180.
47. **Murphy EL, Singh K, Kleffmann T, Gregory ST, Murray BE, Krause KL, Khayat R, Jogl G.** 2020. Cryo-electron microscopy structure of the 70S ribosome from *Enterococcus faecalis*. *Scientific Reports*, **10:**16301.
48. **Svetlov MS, Syroegin EA, Aleksandrova EV, Gregory ST, Mankin AS, Polikanov YS.** 2021. Structural basis of the Erm-mediated resistance to macrolide antibiotics. *Nature Chemical Biology* **17:**412-420.
49. **Silvia S, Donahue SA, Killeavy EE, Jogl G, Gregory ST.** 2021. Antibiotic-resistant mutants of the halophilic, thermophilic bacterium *Rhodothermus marinus*. *Antibiotics* **10:**1384.

Research Manuscripts In Preparation

1. **Donahue SA, Fernando A, Cesana PT, Jogl G, DeBoef B, Gregory ST.** 2022. Inhibition of chloramphenicol-resistant bacteria by rationally-designed, semi-synthetic chloramphenicol derivatives. *Antibiotics*
2. **Murphy EL, Connetti JL, Dahlberg AE, Gregory ST, Jogl G.** 2022. Structural robustness of the ribosome inferred from the X-ray crystal structure of a 30S ribosomal subunit lacking ribosomal protein uS17. (under revision)

Book Chapters and Review Articles

1. **Morgan EA, Gregory ST, Sigmund CD, Borden A.** 1988. Antibiotic resistance mutations in *Escherichia coli* ribosomal RNA genes and their uses. In *Genetics of Translation*, Springer-Verlag, Berlin, Eds MF Tuite, M Picard, and M Bolotin-Fukuhara.
2. **O' Connor M, Brunelli CA, Firpo MA, Gregory ST, Lieberman KR, Lodmell JS, Moine H, Van Ryk DI, Dahlberg AE.** 1995. Genetic probes of ribosomal RNA function. *Biochemistry and Cell Biology* **73:**859-868.
3. **Gregory ST, Brunelli C, Lodmell JS, O'Connor M, Dahlberg AE.** 1998. Genetic selection of rRNA Mutations. *Methods in Molecular Biology* **77:**271-281.
4. **Gregory ST, O'Connor M, Dahlberg AE.** 1999. Structural elements of ribosomal RNA. In *Comprehensive Natural Products Chemistry*. *Vol*. *6 Prebiotic Chemistry, Molecular Fossils, Nucleosides, and RNA*, Elsevier, Amsterdam Eds. D Soll, S Nishimura and PB Moore. pp. 189-204.
5. **O'Connor M, Bayfield M, Gregory ST, Lee WM, Lodmell JS, Mankad A, Thompson JR, Vila-Sanjurjo A, Squires CL, Dahlberg AE.** 2000. Probing ribosomal structure and function: analyses with rRNA and protein mutants. In *The Ribosome*: *Structure, Function, Antibiotics, and Cellular Interactions*, ASM Press, Washington D.C. Eds RA Garrett, SR Douthwaite, A Liljas, AT Matheson, PB Moore, and HF Noller. pp. 217-227.
6. **Gregory ST, Bayfield MA, O'Connor M, Thompson J, Dahlberg AE.** 2002. Probing ribosome structure and function by mutagenesis. *Cold Spring Harbor Symposia on Quantitative Biology* **66:**101-108.

7. **Gregory ST, Dahlberg AE.** 2004. Peptide bond formation is all about proximity. *Nature Structural and Molecular Biology* **11:**586-587.
8. **Gregory ST, Dahlberg AE.** 2008. Structure and evolution of the *Thermus thermophilus* ribosome. In *Thermophiles*: *Biology and Technology at High Temperatures*. Eds F Robb, G Antranikian, D Grogan and A Driessen. Taylor and Francis Books, Boca Raton.
9. **Gregory ST.** 2008. The structural basis for decoding by the ribosome. In *Escherichia coli and Salmonella: Cellular and Molecular Biology*. ASM press.
10. **Gregory ST.** 2011. Ribosome regulation by EF-G and EF-Tu. In *Encyclopedia of Biochemistry 2nd Edition*. Academic Press.
11. **Gregory ST, Demirci H, Carr JF, Belardinelli R, Thompson JR, Cameron D, Rodriguez-Correa D, Murphy IV F, Jogl G, Dahlberg AE.** 2011. Genetic and crystallographic approaches to investigating ribosome structure and function. *Ribosomes 2010 Symposium*. Springer-Verlag, Vienna.
12. **Gregory ST.** 2018. *Thermus thermophilus* as a model system for the study of ribosomal antibiotic resistance. *IOP Conf. Ser. : Earth Environ. Sci.* **130:**012002.
13. **Gregory ST.** 2021. Ribosome regulation by EF-G and EF-Tu. In *Encyclopedia of Biochemistry 3rd Edition.* Academic Press. (Updated)

Grants Awarded

From The Rhode Island Foundation, "*Structural analysis of the macrolide antibiotic binding site of 23S ribosomal RNA*"
February 1997-January 1998.

From the National Institutes of Health/National Institute of General Medical Sciences
R01 GM094157 (Co-Principal Investigator with Gerwald Jogl, Brown University), "*Structural robustness of ribosome functional centers*"
July 2010-Sept 2025

From the Office of Vice President for Research, Brown University, Seed Fund 2015 (Co-Principal Investigator with Gerwald Jogl, Brown University), "*Engineering orthogonal ribosomes to study ribosome function*"

From the USDA National Institute for Food and Agriculture
RI0018-H017, Hatch project 1016013 (Principal Investigator), "*Streptomycin resistance and the 16S rRNA methyltransferase RsmG*"
April 2018-September 2021

From the National Institutes of Health/National Institute of Allergy and Infectious Disease
R21 AI56574 (Co-Principal Investigator with Senior Principal Investigator Jodi Camberg, University of Rhode Island), "*Antibiotic tolerance by multidrug resistant uropathogenic Escherichia coli during quiescence*"
January 2021-December 2022

Service to the Department, College, and University
Curriculum Committee, Department of Cell and Molecular Biology, 2015-2016 Academic Year

Undergraduate Advising, Department of Cell and Molecular Biology, 2016-present

Faculty Search Committee, Department of Cell and Molecular Biology, 2016

Faculty Search Committee, Department of Cell and Molecular Biology, 2017

CMB-MLS Review Committee, Department of Cell and Molecular Biology, 2017. Carried out a review of the CMB Medical Laboratory Sciences Graduate Program curriculum

Participation in Panel Discussion for Seeds of Success, 2017, 2018, 2019

Department Chair Search Committee, Department of Cell and Molecular Biology, 2019

Member, Admissions Committee, Cell and Molecular Biology Specialization of the Biological and Environmental Sciences (BES) Graduate Program, 2017-2018

Chair, Admissions Committee, Biological and Environmental Sciences (BES) Graduate Program, Cell and Molecular Biology Specialization, July 2018-present

Coordinator, Cell and Molecular Biology Specialization of the Biological and Environmental Sciences (BES) Graduate Program, July 2018-present

Chair, CMB Graduate Curriculum Committee, Spring 2022-present

CMB Retreat Committee, September 2020

CMB Retreat Committee, September 2021

Grant Proposal Reviewer for the Office of Undergraduate Research and Innovation at URI. Fall 2020, Fall 2021, Spring 2022

Service to the Community
Mentor for the 2014-2015 Riverside Middle School Robotics Team in Riverside, Rhode Island. The team advanced to the Rhode Island State Championship.

Service to the Profession
Editorial Board Member *Antibiotics* (MDPI) March 2020-present

Ad hoc peer reviewer of manuscripts for the following journals:
Antimicrobial Agents and Chemotherapy (American Society for Microbiology)
Antibiotics (MDPI)
Applied and Environmental Microbiology (American Society for Microbiology)
African Journal of Microbiology Research (Academic Journals)
ASM Spectrum (American Society for Microbiology)
Biochemistry (American Chemical Society)
Bio Med Central Structural Biology
Bio Med Central Molecular Biology
Extremophiles (Springer)
International Journal of Molecular Sciences (MDPI)
Journal of Bacteriology (American Society for Microbiology)
Journal of Molecular Biology (Elsevier)
Microbiology Open
Microorganisms (MDPI)
Molecular Cell (Elsevier)
Molecules (MDPI)
mSphere (American Society for Microbiology)
Nature Structural and Molecular Biology (The Nature Publishing Group)
Nucleic Acids Research (Oxford University Press)
Pharmaceuticals (MDPI)
PLOS ONE (Public Library of Science)
RNA (The RNA Society, Cold Spring Harbor Laboratory Press)
RNA Biology
Structure (Cambridge University Press)

Ad hoc grant proposal reviewer for The National Science Foundation

Professional Affiliations
American Society for Microbiology (ASM)
American Association for the Advancement of Science (AAAS)
American Society for Biochemistry and Molecular Biology (ASBMB)
RNA Society
National Center for Science Education (NCSE)
National Association of Biology Teachers (NABT)
National Science Teaching Association (NSTA)

Honors
Master of Arts *ad eundem*, Brown University '15