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APPOINTMENTS

- 2023-Present** **Associate Professor**
 Dartmouth, Department of Biological Sciences
Adjunct Associate Professor
 Department of Microbiology and Immunology, Geisel School of Medicine
 Department of Orthopaedic Surgery, Geisel School of Medicine
- 2018-2023** Assistant Professor
 Dartmouth, Department of Biological Sciences
- 2015-2017** Alexander von Humboldt Fellow
 Senior Scientist, Max Planck Institute for Terrestrial Microbiology
- 2012-2014** Howard Hughes Postdoctoral Scientist
 Bassler Group, Department of Molecular Biology, Princeton University

EDUCATION

- 2006-2011** Princeton University: M.A., Ph.D. Ecology and Evolutionary Biology
 Advisor: **Simon A. Levin**
- 2003-2006** University of Oxford: B.A. Biological Sciences, (Hons) 1st Class
 Advisors: **Tim Guilford** and **Spencer Behmer**

GRANTS AWARDED AT DARTMOUTH

(For collaborative awards, funding amounts denote the grant portion awarded to our group at Dartmouth)

- 2025-2027** Department of Energy EPSCOR – (\$175,000)
 Revealing the Causes and Consequences of Microbial Non-genetic Variability in
 Energy-relevant Processes
 Role: **co-I** (with PI Daniel Schultz, Geisel School of Medicine)
- 2023-2028** National Institutes of Health NIGMS – NIH 1R35GM151158-01 – (\$2,050,000)
 Bacterial and Viral Predator-Prey Dynamics within Bacterial Biofilms at Cellular
 Resolution
 Role: PI
- 2021-2024** Simons Foundation – Award No. 826672 – (\$714,000)
 Early Career Investigator Award in Marine Microbial Ecology and Evolution
 Role: PI
- 2021-2023** Munck-Pfefferkorn Fund – (\$40,000)
 Assessing evolution and biofilm structure of trauma wound infections
 Role: co-I (with co-PIs Prof. Benjamin Ross, Geisel School of Medicine; Prof. Leah
 Gitajn, Dept. of Orthopedic Trauma Surgery at Dartmouth-Hitchcock Medical Center)

- 2020-2023** National Science Foundation – NSF IOS 2017879 – **(\$300,000)**
Phage host range evolution in spatially structured microbiomes
Role: PI (with co-PIs Prof. William Harcombe, University of Minnesota; Prof. Wolfram Möbius, University of Exeter, UK)
- 2020-2023** Human Frontier Science Program – RGY0077/2020 – **(\$375,000)**
Balancing predator-prey interactions in a host-microbiome-phageome ecosystem
Role: PI (with co-PI Prof. Alexandre Persat, University of Lausanne, Switzerland)
- 2019-2021** National Institutes of Health – P30 pilot award – **(\$100,000)**
Phage infection to control lung microbiota disruption in patients with cystic fibrosis
Role: PI
- 2019-2024** National Institutes of Health – NIH 2R01AI081838 – **(\$350,000)**
Hypoxia adaptation and fungal virulence of *Aspergillus fumigatus*
Role: co-I (PI: Prof. Robert Cramer, Geisel School of Medicine at Dartmouth)
- 2018-2022** National Science Foundation – NSF MCB 1817352 – **(\$725,000)**
Viral micro-epidemics and evolutionary dynamics in bacterial biofilms
Role: PI
- 2018-2020** Cystic Fibrosis Foundation – STANTO15RO pilot award – **(\$160,000)**
Evolution of hyper matrix-secretion during chronic Cystic Fibrosis infection
Role: PI

AWARDS / HONORS

- 2026** Frontiers of Science Fellow, National Academy of Sciences
Nominated by current NAS members to attend the annual Frontiers of Science symposium for leading scientists under age 45 from academia, industry, and government.
- 2023** Douglas C. Floren Fellowship Award, Dartmouth
- 2021** Simons Foundation Early Career Investigator Award in Marine Microbial Ecology and Evolution **(\$666,000)**
- 2018-2023** Burke Award, Dartmouth **(\$25,000)**
Matrix-mediated community ecology in bacterial groups
- 2015-2017** Alexander von Humboldt Fellowship **(\$100,000)**
Ecology and evolution of phage epidemics in bacterial biofilms
- 2012-2014** Howard Hughes Postdoctoral Fellowship **(\$150,000)**
Dynamics of biofilm dispersal and invasion (Bassler group, Princeton)
- 2008-2011** NSF Graduate Research Fellowship **(\$135,000)**
The evolution of quorum sensing and social behavior in bacterial biofilms
- 2008** Cold Spring Harbor Fellowship, Advanced Bacterial Genetics **(\$10,000)**
Support for summer fellowship in bacterial molecular genetics
- 2007-2008** Robert M. May Fellowship **(\$50,000)**
Support award for Ph.D. studies in Ecology and Evolution at Princeton

- 2006-2011** Centennial Award, Princeton University (**\$50,000**)
- 2006** Gibbs Prize, annual award for highest examination rank in Biological Sciences, University of Oxford
- 2005** Wilder Penfield Prize, annual award for excellence in science, Merton College, University of Oxford

PUBLICATIONS † **Corresponding Author** ***Nadell Lab Member**

[Google Scholar Page](#) (9,000+ citations as of 3/15/25)

With Dartmouth affiliation:

64. Peng Y*, Holt JD*, Dalia TN, Dalia AB, **Nadell CD†**. (2026). Temperate phages limit their own propagation in biofilms on chitin particles. *PNAS* (in minor revision).
63. Winans JB* and **Nadell CD†**. (2026). Biofilm spatial structure and superinfection immunity modulate inter-phage competition. *PLoS Biology* 24(3): e3003737
62. Holt JD*, Miller KA*, Hunter OF*, Zhang E, Hinbest AJ, Gerace E, Olson R, Kadouri DE, **Nadell CD†**. (2026). Predator-prey dynamics of *Vibrio cholerae* on chitin suggest an alternative mode of biofilm formation in marine snow conditions. *ISME Journal* 20(1): wrag072
61. Potapova A, Oguchi R, Jimmy S, Evans CR, Yarrington KD, Winans JB*, Piepoli S, Older EA, Schakel OF, Wetherington MT, Garvey W, Floyd KA, Vinogradov E, Yunker PJ, Sanchez LM, **Nadell CD**, Limoli DH, Dietrich LEP, Sondermann H, Yildiz FH. (2025). *Vibrio cholerae* biofilm matrix assembly and growth are shaped by a glutamate-specific TAXI/TRAP protein. *PNAS* 122(50): e2504869122
60. Winans JB*, Delgadillo-Guevara M, Popp PF, Erhardt M, **Nadell CD†**. (2025). Bacterial conjugation can restructure biofilms and increase their resilience while constraining host cell dispersal. *Current Biology* 35: 6126-6136
59. **Nadell CD†**, and Marx CJ†. (2025). Bacteria poison and eat their neighbors. *Science* 388(6752): 1134-1135 (invited commentary)
58. Holt JD*, Peng Y*, Dalia TN, Dalia AB†, **Nadell CD†**. (2025). Chitin adsorbs environmental DNA and can promote horizontal gene transfer by natural transformation. *PNAS* 122(22): e2420708122
57. Demidov V, Bond MC*, Demidova N, Gitajn IL, **Nadell CD**, Elliot JT. (2025). Assessment of photodynamic therapy efficacy against *Escherichia coli* – *enterococcus faecalis* biofilms using optical coherence tomography. *Journal of Biomedical Optics* 30(3): 036003-1
56. Winans JB*, Zeng L, **Nadell CD†**. (2025). Spatial propagation of temperate phages within and among biofilms. *PNAS* 122(6): e2417058122
55. Moreau A, Nguyen DT, Hinbest AJ, Zamora A, Weerasekera R, Matej K, Zhou X, Sanchez S, Brenes IR, Tai, J-S B, **Nadell CD**, NG W-L, Gordon V, Komarova NL, Olson R, Li Y, Yan J. (2025). Surface remodeling and inversion of cell-matrix interactions underlie community recognition and dispersal in *Vibrio cholerae* biofilms. *Nature Communications* 16: 327

54. Holt JD*, Schultz D, **Nadell CD†**. (2024). Dispersal of a dominant competitor can drive multispecies coexistence in biofilms. *Current Biology* 34: 1-14
53. Simpson CA, Celentano ZR, Haas NW, McKinlay JB, **Nadell CD**, van Kessel JC. (2024) Quorum sensing in *Vibrio* controls carbon metabolism to optimize growth in changing environmental conditions. *PLoS Biology* 11: e3002891
52. Sánchez-Peña A, Winans JB*, **Nadell CD**, Limoli DH. (2024). *Pseudomonas aeruginosa* surface motility and invasion into competing communities enhance interspecies antagonism. *mBio*: e00956-24
51. Bisesi AT, Mobius W, **Nadell CD**, Hansen EG, Bowden SD, Harcombe WR. (2024). Bacteriophage specificity is impacted by interactions between bacteria. *mSystems* 9(3): e01177-23
50. Robitaille S, Simmons EL*, Verster AJ, McClure EA, Royce DB, Swartz K, Schultz D, **Nadell CD**, Ross BD. (2023). Community composition and the environment modulate the population dynamics of Type IV secretion in human gut bacteria. *Nature Ecology and Evolution* 7: 2092-2107
49. Smith WPJ, Wucher BR*, **Nadell CD**, Foster KR. (2023). Bacterial defences: mechanisms, evolution, and antimicrobial resistance. *Nature Reviews Microbiology* 21: 519-534
48. Wucher BR*, Winans JB*, Elsayed M, Kadouri DE, **Nadell CD†**. (2023). Breakdown of clonal cooperative architecture in multispecies biofilms and the spatial ecology of predation. *PNAS* 120(6): e2212650120
47. Winans JB*, Wucher BR*, **Nadell CD†**. (2022). Multispecies biofilm architecture determines bacterial exposure to phages. *PLoS Biology*: e3001913
46. Huber M, Lippegauis A, Melamed S, Siemers M, Wucher BR*, **Nadell CD**, Storz G, Papenfort K (2022). An RNA sponge controlling quorum sensing dynamics and biofilm formation in *Vibrio cholerae*. *Nature Communications* 13: 7585
45. Tai J-S B, Mukherjee S, Nero T, Olson R, Tithof J, **Nadell CD†**, Yan J†. (2022). Social evolution of shared biofilm matrix components. *PNAS* 119(27): e2123469119
44. Teschler JK, Jiménez-Siebert E, Jeckel H, Singh PK, Pukatzki S, **Nadell CD**, Drescher K, Yildiz FH. (2022b). VxrB influences antagonism within *V. cholerae* biofilms via interplay of matrix- and Type 6 Secretion-mediated competition. *mBio*: e01885-22
43. Teschler JK, **Nadell CD**, Drescher K, Yildiz FH. (2022a). Mechanisms underlying *Vibrio cholerae* biofilm formation and dispersion. *Annual Reviews Microbiology* 76: 503-532
42. Kerkaert JD, Le Mauff F, Wucher BR*, Beattie SR, Vesely EM, Sheppard DC, **Nadell CD**, Cramer RA. (2022). An alanine aminotransferase is required for polysaccharide regulation and resistance of *Aspergillus fumigatus* biofilms to echinocandin treatment. *mBio* 13(2): e02933-21
41. Gitajn IL, Werth P, O'Toole RV, Joshi M, Jevsevar D, Wise B, Rane Ajinya, Horton S, Ross B, **Nadell CD**. (2022). Microbial species associations in fracture related infection. *Journal of Orthopaedic Trauma* 36(6): 309-316
40. Kasetty S*, Katharios-Lanwermyer S, O'Toole GA†, **Nadell CD†**. (2021b). Differential surface competition and biofilm invasion strategies of *Pseudomonas aeruginosa* PA14 and PAO1. *Journal of Bacteriology* 203(22): e00265-21

39. O'Toole GA, et al. (2021). Model systems to study chronic, polymicrobial infections in Cystic Fibrosis: current approaches and exploring future directions. *mBio* 12(5): e01763-21
38. Bond MC*, Vidakovic L, Singh PK, Drescher K, **Nadell CD†**. (2021). Matrix-trapped viruses can prevent invasion of bacterial biofilms by colonizing cells. *eLife* 10: e65355
37. Koeppen K, Nymon A, Barnaby R, Bashor L, Li Z, Hampton TH, Liefield AE, Kolling FW, LaCroix IS, Gerber S, Hogan DA, Kasetty K*, **Nadell CD**, Stanton BA. (2021). Let-7b-5c in vesicles secreted by human airway cells reduces biofilm formation and increases antibiotic susceptibility of *P. aeruginosa*. *PNAS* 118(28): e2105370118
36. Kasetty S*, Mould DL, Hogan DA, **Nadell CD†**. (2021a). Both *Pseudomonas aeruginosa* and *Candida albicans* accumulate greater biomass in dual-species biofilm under flow. *mSphere* 6(3): e00416-21
35. Wucher BR*, Elsayed M, Adelman JS, Kadouri DE, **Nadell CD†** (2021). Bacterial predation transforms the landscape and community assembly of biofilms. *Current Biology* 31: 2643-2651
34. Kowalski CH, Morelli KA, Stajich JE, **Nadell CD**, Cramer RA (2021). A heterogeneously expressed gene family modulates the biofilm architecture and hypoxic growth of *Aspergillus fumigatus*. *mBio* 12(1): e03579-20
33. Hartmann R, Jeckel H, Jelli E, Singh PK, Vaidya S, Bayer M, Vidakovic L, Díaz-Pascual F, Fong JCN, Dragoš A, Besharova O, **Nadell CD**, Sourjik V, Kovács Á, Yildiz FH, Drescher K (2021). Quantitative image analysis of microbial communities with BiofilmQ. *Nature Microbiology* 6: 151-156
32. Simmons EL*, Bond MC*, Koskella B, Drescher K, Bucci V, **Nadell CD†** (2020). Biofilm structure promotes coexistence of phage-resistant and phage-susceptible bacteria. *mSystems* e00877-19
31. Kowalski CH, Morelli KA, Schultz D, **Nadell CD**, Cramer RA (2020). Fungal biofilm architecture produces hypoxic microenvironments that drive antifungal resistance. *PNAS* 117(36): 22473-22483
30. Wucher BR*, Bartlett TM, Hoyos M, Papenfort K, Persat A, **Nadell CD†** (2019). *Vibrio cholerae* filamentation promotes chitin surface attachment at the expense of competition in biofilms. *PNAS* 116(28): 14216-14221
29. Kitts G, Giglio KM, Zamorano-Sanchez D, Park JH, Townsley L, Cooley RB, Wucher BR*, Klose KE, **Nadell CD**, Yildiz FH, Sondermann H (2019). A conserved regulatory circuit controls large adhesins in *Vibrio cholerae*. *mBio* 10(6): e02822-19
28. Kowalski CH, Kerkaert JD, Bond MC*, Hartmann R, **Nadell CD**, Stajich J, Cramer RA (2019). Fungal biofilm morphology impacts hypoxia fitness and disease progression. *Nature Microbiology* 4:2430-2441
27. Diaz-Pascual F, Hartmann R, Lempp M, Vidakovic L, Song B, Yildiz F, Dunkel J, Link H, **Nadell CD**, Drescher K (2019). Breakdown of *Vibrio cholerae* biofilm architecture induced by antibiotics disrupts community barrier function. *Nature Microbiology* 4: 2136-2145
26. Rossy T, **Nadell CD†**, Persat A† (2019). Cellular advection-diffusion drives emergence of bacterial surface colonization patterns and heterogeneity. *Nature Communications* 10(1): 2471
25. Martinez-Garcia R, **Nadell CD†**, Hartmann R, Drescher K, Bonachela J† (2018). Cell adhesion and fluid flow jointly initiate genotype spatial distribution in biofilms. *PLoS Computational Biology* 14(4): e1006094

24. Simmons EL*, Drescher K, **Nadell CD†**, Bucci V† (2018). Phage mobility is a core determinant of phage-bacteria coexistence in biofilms. *ISME Journal* 12: 531-543
23. Vidakovic L, Singh PK, Hartmann R, **Nadell CD†**, Drescher K† (2018). Dynamic biofilm architecture confers individual and collective mechanisms of viral protection. *Nature Microbiology* 3: 26-31

Prior to Dartmouth:

22. Singh PK, Hartmann R, Bartolomej S, **Nadell CD**, Drescher K (2017). *Vibrio cholerae* combines individual and collective sensing to trigger biofilm dispersal. *Current Biology* 27: 1-8
21. Yan J, **Nadell C**, Stone HA, Wingreen NS, Bassler BL (2017). Extracellular-matrix-mediated osmotic pressure drives *Vibrio cholerae* biofilm expansion and cheater exclusion. *Nature Communications* 8: 327
20. **Nadell CD**, Ricaurte D, Yan J, Drescher K, Bassler B (2017). Flow environment and matrix structure interact to shape spatial competition in *P. aeruginosa* biofilms. *eLife* 6: e21855
19. Yan J, **Nadell CD**, Bassler BL (2017). Environmental fluctuation governs selection for plasticity in biofilm production. *ISME Journal* 11: 1569-1577. (Yan and Nadell co-first)
18. **Nadell CD**, Hartmann R, Drescher K (2016). An emerging grip on the growth of grounded bacteria. *ACS Nano* 10:9109-9110 (commentary)
17. **Nadell CD†**, Drescher K, Foster KR†. (2016). Spatial structure, cooperation, and competition in biofilms. *Nature Reviews Microbiology* 14: 589-600
16. Drescher K, Dunkel J, **Nadell CD**, van Teeffelen S, Grnja I, Wingreen NS, Stone HA, Bassler BL. (2016). Architectural transitions in *Vibrio cholerae* biofilm development at single-cell resolution. *PNAS* 113(4): E2066-2072
15. Persat A, **Nadell CD**, Kim MK, Ingremeau F, Siryaporn A, Drescher K, Wingreen NS, Bassler BL, Gitai Z, Stone HA. (2015). The mechanical world of bacteria. *Cell* 161(5): 988-997
14. **Nadell CD**, Drescher K, Wingreen NS, Bassler BL (2015). Extracellular matrix structure governs invasion resistance in bacterial biofilms. *ISME Journal* 9: 1700-1709
13. Schluter J, **Nadell CD**, Bassler BL, Foster KR (2015). Adhesion as a weapon in biofilm competition. *ISME Journal* 9: 139-149
12. Drescher K, **Nadell CD**, Stone HA, Wingreen NS, Bassler BL (2014). Solutions to the public goods dilemma in bacterial biofilms. *Current Biology* 24: 50-55
11. van Ditmarsch D, Boyle KE, Sakhtah H, Oyler J, **Nadell CD**, Déziel E, Dietrich LEP, Xavier JB (2013). Convergent evolution of hyperswarming leads to impaired biofilm formation in pathogenic bacteria. *Cell Reports* 4: 1-12
10. **Nadell CD†***, Bucci V*, Drescher K*, Levin, SA, Bassler BL, Xavier JB (2013). Cutting through the complexity of cell collectives. *Proceedings of the Royal Society B* 280: 20122770
9. **Nadell CD†** & Foster KR (2012). Mutually helping microbes can evolve by hitchhiking. *PNAS* 109(47): 19037-19038 (commentary)

8. Levin SA, Bonachela JA, **Nadell CD** (2012). Mathematical and computational challenges in the study of complex adaptive microbial systems. *The Social Biology of Microbial Communities* pp. 361-385. NAS Press.
7. **Nadell CD** & Bassler BL (2011). A fitness trade-off between local competition and dispersal in *Vibrio cholerae* biofilms. *PNAS* 108(34): 14181-14185
6. Bucci V, **Nadell CD**, Xavier JB (2011). The evolution of bacteriocin production in bacterial biofilms. *American Naturalist* 178(6): E162-E173
5. Bonachela JA, **Nadell CD**, Xavier JB, Levin SA (2011). Universality in bacterial colonies. *Journal of Statistical Physics* 144: 303-315
4. **Nadell CD**, Foster KR, Xavier JB. (2010). Emergence of spatial structure in cell groups and the evolution of cooperation. *PLoS Computational Biology* 6(3): e1000716
3. **Nadell CD**, Xavier JB, Foster KR. (2009). The sociobiology of biofilms. *FEMS Microbiology Reviews* **33**: 206-224
2. **Nadell CD**, Bassler BL, Levin SA. (2008). Observing bacteria through the lens of social evolution. *Journal of Biology* 7: 27
1. **Nadell CD**†, Xavier JB, Levin SA, Foster KR†. (2008). The evolution of quorum sensing in bacterial biofilms. *PLoS Biology* 6(1): e14

SELECTED TALKS

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| 2025 | Invited Departmental Seminar. Faculty of Biology. Binghamton University (SUNY). Binghamton, NY, USA. |
| 2025 | Invited Departmental Seminar. Integrative Biology Series. Texas A&M University. College Station, TX, USA. |
| 2025 | Section leader and invited lecturer. Gordon Research Conference on Microbial Adhesion and Signal Transduction: Microbial Responses to Complex Environments. Newport, RI, USA. |
| 2025 | Invited lecture. Summer School for Quantitative Phage-Bacteria Dynamics Across Scales. University of Maryland. College Park, MD, USA. |
| 2025 | Invited Departmental Seminar. Wadsworth Center, SUNY Albany. Albany, NY, USA. |
| 2025 | Invited Departmental Seminar. Pathobiology Seminar Series. University of Connecticut. Storrs, CT, USA. |
| 2024 | Invited Departmental Seminar. Faculty of Biology and Biophysics. University of Illinois Urbana-Champaign. Urbana-Champaign, IL, USA. (cancelled due to illness) |
| 2024 | Invited speaker for GRC Bacterial Cell Surfaces. Portland, ME. USA |
| 2024 | Invited speaker in the microscale microbial ecology section of ASM Microbe. Atlanta, GA, USA. |

- 2024 Invited lecture. Grand Rounds presentation for Geisel School of Medicine at the Dartmouth Hitchcock Medical Center. Lebanon, NH, USA.
- 2024 Invited lecture. Parsons Laboratory Lecture Series in Microbial Ecology. Massachusetts Institute of Technology. Boston, MA, USA.
- 2024 Invited speaker for the Phage vs. Bacteria meeting hosted by Prof. Ned Wingreen and Sujit Datta in the Center for Theoretical Science at Princeton University.
- 2023 Departmental seminar. Faculty of Biological Sciences. Vanderbilt University. Nashville, TN, USA.
- 2023 Departmental seminar. Faculty of Biology. Washington University. St. Louis, MO, USA
- 2023 Visiting Scholar. Biozentrum, University of Basel, Switzerland.
- 2022 ASM Biofilms Conference Talk. Charlotte, NC, USA
- 2022 Invited lecture. Symposium for Molecular Mechanisms in Ecology and Evolution – hosted by the European Molecular Biology Laboratory. Heidelberg, Germany.
- 2022 Invited lecture. 36th Symposium at the Department of Embryology, Carnegie Institute of Science: “Structure and Organization in Biology”. Carnegie Institute and Johns Hopkins University. Baltimore, MD, USA
- 2022 Invited lecture. Simons Foundation Marine Microbial Ecology symposium. New York, NY, USA.
- 2022 Invited lecture. Parsons Laboratory Lecture Series in Microbial Ecology. Massachusetts Institute of Technology. Boston, MA, USA.
- 2021 Departmental seminar. Faculty of Biological Sciences. University of Indiana. Bloomington, IN, USA.
- 2021 Departmental seminar. Faculty of Biological Sciences. Georgia Institute of Technology. Atlanta, GA, USA (Virtual seminar due to COVID-19)
- 2020 Invited conference speaker. ASM Biofilms Virtual Meeting, June 2020
- 2020 Departmental seminar: Faculty of Biological Sciences, University of St. Louis. St. Louis, MI, USA (postponed due to COVID-19)
- 2020 Invited conference speaker (ASM Award Lecture). American Society for Microbiology – Microbe Meeting, section on modern techniques in bacterial biofilm analysis. Chicago, IL, USA (canceled due to COVID-19)
- 2019 Departmental seminar. Faculty of Chemistry, Bates College. Lewiston, ME, USA
- 2019 Invited Symposium Speaker on Microbial Diversity. Marine Biological Laboratory. Woods Hole, MA, USA
- 2019 Departmental seminar. Faculty of Microbiology, UC Santa Cruz. Santa Cruz, CA, USA
- 2019 Departmental seminar. Faculty of Biology, Hofstra University, Queens, NY, USA
- 2018 Departmental seminar. Faculty of Molecular Biology, Montana State University, Bozeman, MT, USA
- 2018 ASM Biofilms Conference Talk. Washington, D.C., USA
- 2018 Departmental seminar. Faculty of Biology, University of Québec at Montréal. Montréal, Canada.

- 2018 Departmental seminar. Faculty of Biology, Boston College. Boston, MA, USA
- 2018 Invited symposium host. Boston Bacteriology Meeting. Boston, MA, USA
- 2018 Departmental seminar. Faculty of Physics. Boston University, Boston, MA, USA
- 2018 Departmental seminar. Center for Microbial and Plant Genetics. KU Leuven, Belgium
- 2017 Departmental seminar. Faculty of Biology. University of Massachusetts, Dartmouth, MA, USA
- 2017 Departmental seminar. Faculty of Ecology and Evolutionary Biology, Yale University, New Haven, CT, USA
- 2017 Conference seminar - Euro-Biofilms 2017. Evolution and Adaptation Division. Amsterdam, Netherlands
- 2017 Conference seminar - Systems Biology and Molecular Economy of Microbial Communities. International Center for Theoretical Physics. Trieste, Italy
- 2017 Departmental seminar. School of Life Sciences. École Polytechnique Fédérale de Lausanne, Switzerland
- 2016 Invited teaching seminar: *Collective Behavior Masterclass: Microbiology and Social Evolution*. MPI for Collective Behavior, and University of Konstanz, Germany
- 2016 Departmental seminar. Faculty of Biology. University of Nevada, Las Vegas, NV, USA
- 2016 Conference seminar. *Experimental Evolution and Community Dynamics Symposium*. Max Planck Institute for Evolutionary Biology, Plön, Germany
- 2016 Departmental seminar. Faculty of Biophysics. Ludwig-Maximilians Universität, Munich, Germany
- 2015 Conference seminar - *Euro Biofilms 2015, Ecology and Evolution Division*. Brno, Czech Republic (declined due to illness)
- 2014 *Microbial Communities: Structure, Function and Dynamics*. Isaac Newton Institute, Cambridge, UK (declined due to illness)

PROFESSIONAL SERVICE

- 2011 – Present: **Manuscript Peer Review:**
American Naturalist, Journal of Bacteriology, Biology Letters, Bulletin of Mathematical Biology, Current Biology, Cell, eLife, Environmental Microbiology, Evolution, Journal of Evolutionary Biology, FEMS Microbiology Ecology, Heredity, The ISME Journal, npj Biofilms and Microbiomes, mBio, mSystems, Molecular Microbiology, Nature Microbiology, Philosophical Transactions of the Royal Society B, PLoS Biology, PLoS Computational Biology, PLoS Genetics, PLoS Pathogens, PNAS, Proceedings of the Royal Society B, Science Advances, Journal of Theoretical Biology, Trends in Microbiology
- 2025 – Present *Science*, member of board of reviewing editors

Grant Ad Hoc Peer Review:

US National Science Foundation, German National Science Foundation, French National Science Foundation, Swiss National Science Foundation, Keck Foundation

Grant Panel Service:

- National Science Foundation Directorate of Molecular and Cellular Biology, Systems and Synthetic Biology Cluster
- National Institutes of Health - NIGMS

Professional Affiliations

American Society for Microbiology, American Society of Naturalists, Society for the Study of Evolution,