

Amrita Bhattacharya

CURRICULUM VITAE

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EDUCATION & TRAINING

Postdoctoral Scholar The Pennsylvania State University	August 2019 – Present Advisor: David Kennedy
Ph.D. in Evolution, Ecology and Behavior Indiana University	August 2013 – July 2019 Advisors: Curtis Lively & Farrah Bashey-Visser
MSc. in Biology (with Distinction) Tata Institute of Fundamental Research	August 2010 – July 2013 Advisor: Vidita Vaidya
BSc. Microbiology (Class: First, Rank: First) University of Mumbai	July 2007 - May 2010

PUBLICATIONS (# Undergraduate mentee co-author, * Equal contribution)

9. K. M. Million*, **A. Bhattacharya***, Z. M. Dinges*, S. Montgomery#, E. Smith, C. M. Lively. (2021). DNA content variation and SNP diversity within a single population of asexual snails. *Journal of Heredity* 112(1):58-66.
8. M. A. Greischar, H. K. Alexander, F. Bashey, A. I. Bento, **A. Bhattacharya**, M. Bushman, L. M. Childs, D. R. Daversa, T. Day, C. L. Faust, M. E. Gallagher, S. Gandon, C. K. Glidden, F. W. Halliday, K. A. Hanley, T. Kamiya, A. F. Read, P. Schwabl, A. R. Sweeny, A. T. Tate, R. N. Thompson, N. Wale, H.J. Wearing, P. J. Yeh, N. Mideo. (2020). Evolutionary consequences of feedbacks between within-host competition and disease control. *Evolution, Medicine, and Public Health* (1):30–34
7. **A. Bhattacharya**, V. C. Toro-Diaz#, L. T. Morran, F. Bashey. (2019). Evolution of increased virulence is associated with decreased spite in the insect-pathogenic bacterium *Xenorhabdus nematophila*. *Biology Letters*. 15(8): 20190432
6. **A. Bhattacharya**, A. J. Stacy#, F. Bashey. (2019). Suppression of bacteriocin resistance using live, heterospecific competitors. *Evolutionary Applications*. 12(6):1191-1200
5. **A. Bhattacharya**, H. T. Pak#, F. Bashey. (2018). Plastic responses to competition: Does bacteriocin production increase in the presence of nonself competitors? *Ecology and Evolution*. 8(14):6880–6888.
4. A. Sood*, S. Pati*, **A. Bhattacharya**, K. Chaudhari, V. A. Vaidya. (2018). Early emergence of altered 5-HT2A receptor-evoked behavior, neural activation and gene expression following maternal separation. *International Journal of Developmental Neuroscience*. 65:21-28

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3. S. P. Slowinski*, L. T. Morran*, R. C. Parrish, E. R. Cui, **A. Bhattacharya**, C. M. Lively, P. C. Phillips. (2016). Coevolutionary interactions with parasites constrain the spread of self-fertilization into outcrossing host populations. *Evolution*. 70:2632-2639
 2. M. Pusalkar, D. Suri, A. Kelkar, **A. Bhattacharya**, S. Galande, V. A. Vaidya. 2016. Early stress evokes dysregulation of histone modifiers in the medial prefrontal cortex across the life span. *Developmental Psychobiology*. 58 (2):198-210
 1. D. Suri, **A. Bhattacharya**, V. A. Vaidya. 2014. Early stress evokes temporally distinct consequences on the hippocampal transcriptome, anxiety and cognitive behaviour. *International Journal of Neuropsychopharmacology* 17: 289–301

Manuscripts in prep (Full manuscripts available upon request)

1. **A. Bhattacharya**, A. Aluquin, D. A. Kennedy . Exceptions to the rule: Why does resistance evolution not undermine antibiotic therapy in all bacterial infections?

AWARDS & FELLOWSHIPS

Research Awards

Sigma Xi, Grants-in-Aid of Research Award (\$500)	2016
Society for the Study of Evolution, Rosemary Grant Award (\$2,500)	2014

Fellowships

CISAB Predoctoral Fellowship, Indiana University	2018-19 (2 semesters)
Louise Constable Hoover Fellowship, Indiana University	2017 (summer)
Donna Graam Fellowship, Indiana University	2016 (summer)
Project Oriented Biological Education Fellowship, JNCASR, India	2008-2010

Travel Awards

Indiana University Provost's Women in Science Travel Award (\$500-1000)	2014-18 (5 awards)
CISAB Travel Award, Indiana University (\$500)	2014-18 (3 awards)
Indiana University Department of Biology Travel Award (\$250)	2014-18 (5 awards)

Honors and Prizes

Distinction, MSc Thesis, Tata Institute of Fundamental Research, Mumbai	2013
Sir Dinshaw Manockjee Petit (First Baronet) Science Prize, University of Mumbai	2010

INVITED SEMINARS

Club EvMed – Virtual Evolutionary Medicine Conversations, TriCEM	November 2020
Berkeley Ecology and Evolution of Infectious Diseases Seminar, UC Berkeley	October 2020
University of Iowa, Ecology and Evolution Departmental Seminar	September 2018
EEB Brown Bag Seminar Series, Indiana University	2014, 2018

PRESENTATIONS AT NATIONAL AND INTERNATIONAL CONFERENCES

- Evolution, 2021, Virtual Conference [*Contributed talk*]
- Ecology and Evolution of Infectious Diseases (EEID) 2021, Virtual Conference [*Poster*]
- Microbial Ecology and Evolution Virtual 2020 [*Contributed talk*]
- Ecology and Evolution of Infectious Diseases (EEID) 2019, Princeton, NJ, USA [*Contributed talk*]
- Evolution, 2018, Montpellier, France [*Contributed talk*]

Microbial Population Biology, GRC 2017, Andover, NH, USA [Poster]
 Evolution, 2016, Austin, TX, USA [Contributed talk]
 Ecology and Evolution of Infectious Diseases (EEID) 2016, Ithaca, NY, USA [Poster]
 Ecology and Evolution of Infectious Diseases (EEID) 2015, Athens, GA, USA [Poster]
 Microbiology Retreat, Indiana University, 2014 and 2016, Bloomington, IN, USA [Poster]

WORKING GROUPS & TRAINING ACTIVITIES

Guarda Workshop in Evolutionary Biology, Guarda, Switzerland	2014
IDEAS RCN Workshop on Evolutionary Consequences of Feedbacks Between Within-host Competition and Disease Control, Princeton, NJ	2019

TEACHING EXPERIENCE

Graduate Associate Instructor, Indiana University
 L113 Introductory Biology, B200 The Intricate Human, S318 Honors Evolution, L111 Evolution and Diversity (2x), L318 Evolution, L104 Biology of the Senses (2x) 2013-2018

Guest lectures

Spite, competition, and virulence in pathogenic bacteria, Evolutionary Medicine, Penn State University	Spring 2021
The evolution of spite. S318 Honors Evolution, Indiana University	Fall 2020
The evolutionary ecology of spiteful bacteriocin production in natural populations of insect-pathogenic bacteria. A500, CISAB, Indiana University	Spring 2019
The evolution of social behavior L318, Evolution, Indiana University	Spring 2016

Active learning contributions (Indiana University)

Card-based 'Rock Paper Scissors' game to elucidate non-transitive dynamics S318, Honors Evolution, (Course Instructor: Curt Lively)	Fall 2016
Laboratory exercise on the evolution of antimicrobial resistance L318, Evolution, (Course Instructor: Farrah Bashey-Visser)	Fall 2016

MENTORING EXPERIENCE (*co-authors in peer reviewed publications, # URM student)

At Penn State

Mr. Anton Aluquin, Undergraduate Research Credits, Penn State University	2020-Present
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At Indiana University

Ms. Valeria C. Toro Diaz, CISAB REU Student **	2018
Ms. Sarah Montgomery, Undergraduate Employee *	2017-19
Mr. Alexander J Stacy, Undergraduate Employee *	
Ms. Elizabeth Lambert, Emerging Scholars REU Women Program	2016 -17
Ms. Elizabeth Huls, High School Research Student, Indiana	2016
Ms. Hannah Pak, Undergraduate Employee **	2015-2016
Mr. Cheyenne Smith, Undergraduate Volunteer	2014-2015
Mr. Jay Trivedi, Undergraduate Volunteer	2014-2015

DIVERSITY, EQUITY, AND INCLUSION

Instructor, Jim Holland Summer Enrichment Program, Indiana University	2016-17
Groups STEM Mentor for first generation college students at Indiana University	2015-16

OUTREACH

Writer and Associate Editor, SciU - Conversations in Science at Indiana University	2016-17
Volunteer at Indiana University's "Science Fest"	2015-18

PROFESSIONAL SERVICE

Peer review: Evolution (2020), Philosophical Transactions of the Royal Society (2020), Proceedings of the Royal Society B (2019), Molecular Ecology (2016)

Organizing conferences, moderating panel discussions

Session Moderator, IU Center for the Integrative Study of Animal Behavior (CISAB) Conference ,2016
IU CISAB Animal Behavior Conference, Poster Committee, 2015-2017 (3 years)
International Society for Developmental Neuroscience, Annual Meeting, Mumbai, Volunteer , 2012

PROFESSIONAL SOCIETY MEMBERSHIPS: Society for the Study of Evolution

PROFESSIONAL REFERENCES

Dr. David A. Kennedy	Postdoctoral Advisor, Penn State University, dak30@psu.edu , (814)-863-5461
Prof. Curtis M. Lively	Ph.D. Advisor, Indiana University, clively@indiana.edu , (812)-855-1842
Dr. Farrah Bashey-Visser	Ph.D. Advisor, Indiana University, fbasheyv@indiana.edu , (812)-855-1962