

Aditya Chetan Bandekar, Ph.D.
Curriculum Vitae

Department of Molecular & Cellular Biology
Harvard University
Northwest Laboratory - NW 454
Cambridge, MA 02138

abandekar@fas.harvard.edu
Phone: (646) 247 - 1307
Twitter: @bandekarac

EDUCATION

2020 University of Massachusetts Medical School, Worcester, MA, USA
Ph.D., Microbial Physiology
Advisor: Dr. Christopher M. Sassetti

2010 Maharaja Sayajirao University of Baroda, Vadodara, GJ, India
M.Sc., Microbiology
Advisor: Dr. Pranav R. Vyas

2008 University of Mumbai, Mumbai, MH, India
B.Sc., Microbiology & Applied Biotechnology

AWARDS

2010 Graduate Research Fellowship (GATE Fellowship), Life Sciences, Ministry of Human Resource Development, Govt. of India - A fellowship awarded to pursue doctoral studies in India (Declined)

2009 Junior Research Fellowship (JRF), Life Sciences, University Grants Commission, India- A fellowship awarded to pursue doctoral studies in India (Declined)

RESEARCH EXPERIENCE

2025-Present

Postdoctoral Associate

Department of Molecular and Cellular Biology, Harvard University, Cambridge, MA, USA

Advisor: Dr. Ethan C. Garner

Understanding cell wall hydrolase activity in *Bacillus subtilis*

2020-2025

Postdoctoral Fellow

Department of Immunology and Infectious Diseases, Harvard T. H. Chan School of Public Health, Boston, MA, USA

Advisors: Dr. Yonatan H. Grad and Dr. Ethan C. Garner

Studying growth, division and antibiotic resistance in *Neisseria gonorrhoeae*

2012-2020

Graduate Research Assistant, Program in Molecular Genetics and Microbiology, UMass Medical School, USA

Advisor: Dr. Christopher M. Sassetti

Studying the importance of transcriptional fluctuations during the *Mycobacterium tuberculosis* cell cycle

2010-2011

Research Assistant, Department of Biological Sciences, Tata Institute of Fundamental Research, India

Advisor: Dr. Krishanu Ray

Determining the nature of the interaction between motor protein kinesin-2 and microtubules by using truncated versions kinesin-2 to perform immunoprecipitation and microtubule decoration experiments.

2008-2010

M.Sc., Department of Microbiology & Biotechnology Centre, M.S. University of Baroda, India

Advisor: Dr. Pranav R. Vyas

Master's Thesis: Extraction, purification and characterisation of antifungal principles from potential biocontrol agents *Paenibacillus* sp.D1 and *Streptomyces* sp.A6. Worked towards developing a non-pesticide approach to control fusarial wilt in the pigeon pea plant, an important crop of western India.

2006-2008

B.Sc., Ramnarain Ruia College, University of Mumbai, India

Advisor: Urmi Palan, M.Phil

Over the course of two summers, worked towards characterizing thermophilic microbes from an interesting niche, a compost pit, where temperatures reach 170F. Using morphological characterization and classical biochemical tests, identified *Thermoactinomyces vulgaris* as the dominant microbe.

INVITED TALKS

2017 Boston Bacterial Meeting, Harvard University, MA

2018 Pioneer Valley Microbiology Symposium, University of Mass-Amherst, MA

2020 CauloCon 2.0

2025 Gordon Research Conference, Bacterial Cell Biology & Development

PUBLICATIONS

Bandekar, A.C.*, Ramirez-Diaz, D., Palace, S.G., Wang, Y., Garner, E.C., Grad, Y.H. (2025). Axial asymmetry organizes division plane orthogonality in *Neisseria gonorrhoeae*. Current Biology 35 (9), P1963-1972.E4 [Link](#)

*** Corresponding author**

Bandekar, A.C., Subedi, S., Ioerger, T.R., and Sassetti, C.M. (2020). Cell cycle-associated expression patterns predict gene function in mycobacteria. Current Biology 30 (20), P3961-3971.E6 [Link](#)

Shamma F, Papavinasasundaram K, Quintanilla SY, **Bandekar A**, Sassetti C, Boutte CC. 2021. Phosphorylation on PstP regulates cell wall metabolism and antibiotic tolerance in *Mycobacterium smegmatis*. J Bacteriol 203:e00563-20. [Link](#)

REFERENCES

Ethan C. Garner, Ph.D. (Postdoc advisor)
Professor
Department of Molecular and Cellular Biology
Harvard University
egarner@fas.harvard.edu
Phone: (617) 496-8959

Yonatan H. Grad, M.D., Ph.D. (Former Postdoc advisor)
Professor
Department of Immunology and Infectious Diseases
Harvard T.H. Chan School of Public Health
ygrad@hsph.harvard.edu
Phone: (617) 432-2275

Christopher M. Sassetti, Ph.D. (Ph.D. advisor)
Professor
Department of Microbiology & Physiological Systems
University of Massachusetts Medical School
christopher.sassetti@umassmed.edu
Phone: (508) 856-3678

Peter M. Pryciak, Ph.D. (Ph.D. thesis committee member)
Associate Professor
Department of Biochemistry & Molecular Pharmacology
University of Massachusetts Medical School
peter.pryciak@umassmed.edu
Phone: (508) 856-8756