

Abdeali Jivaji

Curriculum vitae

Graduate Research Assistant and Ph.D. Candidate
Department of Biological Sciences
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Education and Research Experience

- October 2024 - Present** PhD Candidate in Biological Sciences, Department of Biological Sciences, Virginia Polytechnic Institute and State University, Blacksburg, VA.
Advisor: Frank O. Aylward.
- 2022 - October 2024** PhD student in Biological Sciences, Department of Biological Sciences, Virginia Polytechnic Institute and State University, Blacksburg, VA.
Advisor: Frank O. Aylward.
- 2019- 22** PhD candidate in Dept of Biosciences and Bioengineering, Indian Institute of Technology Bombay, Mumbai, India. (Exited without degree to join VT)
Advisor: Prof. Prashant Phale
Project: Developing protein periplasmic localization systems for efficient degradation of organic pesticides.
- 2017-19** Master of Science Biotechnology, Department of Microbiology and Biotechnology Centre, MSU Baroda, Vadodara, Gujarat, India.
Advisor: Prof. Mrinalini Nair
Thesis: Cloning and Characterization of a small non-coding RNA P18 of *Pseudomonas aeruginosa*
- 2014-17** Bachelor of Science Biotechnology, Mithibai College, University of Mumbai, Mumbai, India

Publications

Articles

- 1) Victoria Fulgencio Queiroz, Juliana Miranda Tatara, **Abdeali Mustafa Jivaji**, Cindy Jittrapan Given, ..., Gabriel Magno de Freitas Almeida (2026). Isolation of a cohort of giant viruses from above the Arctic circle in Northern Norway. *Environmental Microbiology*, 28(7), e70366. <https://doi.org/10.1111/1462-2920.70366>
- 2) Rodrigues, M., Queiroz, V., ..., **Jivaji, A.**, Rodrigues, R. A. L., ... Abrahão, J. S. (2025). Naiavirus: An enveloped giant virus with a pleomorphic, flexible tail. *Nature Communications*, 16(1), 8306. <https://doi.org/10.1038/s41467-025-63463-6>

- 3) **Jivaji, A. M.**, Karki, S., Franken, E., Erazo-Garcia, M. P., Barth, Z. K., & Aylward, F. O. (2025). Giant endogenous viral elements in the genome of the model protist *Euglena gracilis* reveal past interactions with giant viruses. *Journal of Virology*, 99(9), e00713-25. <https://doi.org/10.1128/jvi.00713-25>
- 4) Erazo-Garcia, M. P., Sheyn, U., Barth, Z. K., Craig, R. J., Wessman, P., **Jivaji, A. M.**, Ray, W. K., Svensson-Coelho, M., Cornwallis, C. K., Rengefors, K., Brussaard, C. P. D., Moniruzzaman, M., & Aylward, F. O. (2025). Cryptic infection of a giant virus in a unicellular green alga. *Science*, 0(0), eads6303. <https://doi.org/10.1126/science.ads6303>

Reviews & Commentaries

- 1) Queiroz, V., **Jivaji, A.M.**, Aylward F.O. Tiny Giants in a Big Ocean. *Microbiol Spectr* 14:e02992-25. <https://doi.org/10.1128/spectrum.02992-25>
- 2) Moniruzzaman M, Erazo Garcia MP, Farzad R, Ha AD, **Jivaji A**, Karki S, Sheyn U, Stanton J, Minch B, Stephens D, Hancks DC, Rodrigues RAL, Abrahao JS, Vardi A, Aylward FO. Virologs, viral mimicry, and virocell metabolism: the expanding scale of cellular functions encoded in the complex genomes of giant viruses. *FEMS Microbiol Rev*. 2023 Sep 5;47(5):fuad053. doi: 10.1093/femsre/fuad053.

In Preparation/Review

- 1) **Abdeali M. Jivaji**, Victoria F. Queiroz, Talita B. Machado, Kirsten G. Perrin, Lilia A. Saad, Jonatas S. Abrahao, Michael B. Lynch, Frank O. Aylward. Exceptionally Low Mutation Rate of a Giant Virus. *Submitted at Science*.
- 2) Roo Weed, Molly A Moynihan, Eleanor Greene, Olivia L Mathieson, Catherine A Crowley, Emily N Junkins, Hannah Vanderscheuren, **Abdeali M Jivaji**, Manuel Kleiner, S Emil Ruff. Bloom-forming anoxygenic phototrophs heavily invest in anti-phage defense. *In preparation*

Fellowships and Awards

2026	VT Graduate School Doctoral Assistantship (GSDA), Fall 2026
2026	Lewis Edward Goyette Fellowship (Half of Summer stipend)
2026	Travel Award for attending American Society of Virology 2026 (ASV 2026) conference (~\$575)
2025	Half of Annie J. Liberati Memorial Scholarship (\$1075)
2024	VT Graduate and Professional Student Senate (GPSS) Travel Fund Program (TFP) to attend ISME19 (\$300)
2024	Travel grant from International Society of Microbial Ecology (ISME) Society to attend ISME 19 conference in Cape Town, South Africa (\$855)
2023	MBL Support to attend Microbial Diversity Summer course (\$7600)
2021-22	Senior Research Fellow funded by Dept of Biotechnology, Govt. of India (Rs. 35,000 pm + 20,000 Annual contingency)
2019-21	Junior Research Fellow funded by Dept of Biotechnology, Govt. of India (Rs. 31,000 pm + 20,000 Annual contingency)
2017-19	Master's Stipend funded by Dept. of Biotechnology, Govt. of India (Rs. 5000 pm)

Conferences & Courses

2026	Poster at American Society of Microbiology (ASM) 2026 , Washington DC.
2025	Talk at Research Day, Dept of Biological Sciences, VT (Feb 2025)
2024	Poster Presentation, International Society of Microbial Ecology (ISME) 19 conference in Cape Town, South Africa. August 18-23, 2024
2024	Poster Presentation, Research Day, Dept of Biological Sciences, VT (Feb 2024)
2023	Student at Microbial Diversity Summer Course at Marine Biological Laboratory , University of Chicago, Woods Hole, MA, USA (6.5 weeks, July-August)
2023	Poster Presentation, Research Day, Dept of Biological Sciences, VT (Feb 2023)

Teaching & Mentorship

2026	Undergrad student , Thomas J. Dalessio, Dept. of Computer Sciences, VT
2024-2025	Undergrad student , Lily Saad, Dept of Biological Sciences, VT
March 2024	Guest Lecture , Undergraduate Ecology course by Susan Whitehead
2023	Undergrad student , Emma Franken, Dept of Biological Sciences, VT
2022-2024	Undergrad student , Tyler Harris, Dept of Biological Sciences, VT
2020-21	Master's student , Rishabh Chandna, Department of Biosciences and Bioengineering, IIT Bombay, India
2020	Mentor for 2020 cohort of PhD students in Department of Biosciences and Bioengineering, IIT Bombay as part of IRSCP, IIT Bombay, India
2020	Best TA award for TA in Microbiology Lab, Department of Biosciences and Bioengineering, IIT Bombay, India

Service

Ad Hoc Academic Reviewing

Nature protocols

Outreach

2025	Research Seminar talk at Dept. of Microbiology and Biotechnology Centre, MSU Baroda, Gujarat, India
2025	Zoom seminar in Interdisciplinary Centre of Marine and Environmental Research (CIIMAR), University of Porto, Portugal
2024	Outreach article published in VT Center for Communicating Science Research Stories page titled "Abdeali Jivaji: Why humans wouldn't exist without giant viruses."
2023	Participant in Nutshell games organized by VT Center for Communicating Science: 90 second research talk, general audience (November 11 th , 2023)

Committees

2025-26	Social Chair for Biology Grad Student Association (BGSA) at VT Dept of Biological Sciences
2024-25	Graduate and Professional Student Senate (GPSS) senator representing VT Dept of Biological Sciences Grad Students

2023-24 Social Chair for Biology Grad Student Association at VT Dept of Biological
Sciences

Technical Skills

R, Python, & Linux

Bioinformatics

Tangential Flow Filtration

Transmission Electron Microscopy