

Abdeali Jivaji

Curriculum vitae

Graduate Research Assistant and Ph.D. Candidate
Department of Biological Sciences
Virginia Tech
Blacksburg, VA, 24061
Email: abdeali@vt.edu | abujivaji@gmail.com
Github: <https://github.com/abdealijivaji>
Website: alivir.vt.domains

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) 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>
- 2) **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>

- 3) 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) Victoria Fulgencio Queiroz, Juliana Miranda Tatará, **Abdeali Mustafa Jivaji**, Cindy Jittrapan Given, Lara Ambrosio Leal Dutra, Waleed Abbas, Zaroon Ricky, Runar Stoke, Klara Stensvåg, Jonatas Santos Abrahao, Gabriel Magno de Freitas Almeida. Isolation of a cohort of giant viruses from above the Arctic circle in Northern Norway. *Environmental Microbiology, In Review.*
- 2) **Abdeali M. Jivaji**, Thomas J. Dalessio, and Frank O. Aylward. Viralrecall - A tool to identify giant viruses integrated into eukaryotic genomes. *The Journal of Open Source Software, In Review.*
- 3) **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. *In preparation.*
- 4) 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	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

- 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 11th, 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