



MAYANK CHUGH, PhD

1000 Hilltop Circle, Baltimore, MD | machugh@umbc.edu | mayankchugh.org

ACADEMIC APPOINTMENTS

University of Maryland, Baltimore County <i>Assistant Teaching Professor of Biology</i> <i>Assistant Teaching Professor, The Human Contexts of Science and Technology</i> <i>Assistant Teaching Professor, Language, Literacy, and Culture Doctoral Program</i> <i>Director, Applied Molecular Biology Graduate Program</i>	Baltimore, US Aug 2025— Aug 2026— Sep 2026— Aug 2025—
College of William & Mary <i>Visiting Assistant Professor of Biology</i> <i>Affiliate Faculty, Gender, Sexuality, and Women's Studies</i>	Williamsburg, US Aug 2024 – Aug 2025 Oct 2024 – Aug 2025
Harvard Medical School (HMS) <i>Postdoctoral Research Fellow in Systems Biology</i>	Boston, US Jan 2020 – Aug 2024

ORGANIZATIONAL & LEADERSHIP APPOINTMENTS

Scientific Citizenship Initiative (SCi) <i>Advisory Council, Massachusetts Science and Technology Policy Fellowship</i>	Boston, US Sept 2025—
The Journal of Emerging Investigators, Inc. <i>Chair, Board of Directors</i>	Boston, US Apr 2024—
eLife Sciences Publications, Ltd <i>Co-Chair, Early Career Advisory Board</i> <i>Member, Board of Reviewing Editors</i>	Cambridge, UK Aug 2023— Jul 2026—
Harvard Medical School (HMS) <i>Governing Chair, Harvard Medical Postdoctoral Association</i>	Boston, US Jul 2021 – Jun 2023
Harvard Medical School (HMS) <i>Chair, Systems Biology Department Committee on Postdoc & Faculty Recruitment</i>	Boston, US Feb 2021 – Dec 2023

EDUCATION

Max Planck Institute for Biology and Eberhard Karls University <i>PhD in Biology—magna cum laude thesis (Biophysics)</i>	Tübingen, Germany Sept 2019
Indian Institute for Science Education and Research (IISER) <i>B.S.-M.S. Dual Degree</i>	Mohali, India May 2014

CONT. EDUCATION

Mini-MBA <i>Harvard Griffin School of Arts and Sciences Biotech Club w/ Harvard Business School</i>	Boston, US July 2022
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AWARDS AND HONOURS

2026	Hrabowski Innovation Award, University of Maryland, Baltimore County
2025	Inaugural Scholar-In-Residence Fellow, Phi Beta Kappa (PBK) Honor Society, Virginia
2024	Equity, Social Justice, and Advocacy Award, Harvard Medical School
2024	Fellows-In-Residence Program, Safra Center for Ethics, Harvard Kennedy School—Finalist
2014-2019	International Max Planck Research School Fellowship
2015	Best Poster Presentation, Max Planck Annual PhD Retreat
2015	Communicating Your Science Fellow, Genetics Society, UK
2009-2014	KVPY, Department of Science and Technology Fellowship, Government of India
2014	Award for Academic Excellence in Biology, Class of 2014
2012-2014	4X Dean's List
2013	Summer Fellowship in Neuroscience, Resonance: MIT, Harvard, and IIT Delhi
2013	The Khorana Scholar Exchange Fellowship at University of Wisconsin-Madison—Declined
2012	Indian Academy of Sciences Summer Fellowship

GRANTS AND FUNDING

2026	Co-PI (with Julissa Muniz), “Community Colleges and System Impacted Students” <i>In preparation for William T. Grant Reducing Inequality Major Grant</i>
2026-2028	PI, “Teaching Laboratories as Mentoring Ecosystems: A Structured, Equity-Centered Intervention to Enhance Scientific Identity, Research Self-Efficacy, and STEM Persistence,” <i>Hrabowski Innovation Fund Grant, University of Maryland, Baltimore County</i> Amount: \$9694
2026	PI, “FACETS: A multidimensional Analytics Framework for Faculty Success <i>Mini-Analytics Grant, Division of Information Technology, University of Maryland, Baltimore County</i> Amount: \$2000
2024-2025	PI, “The Future of Academic Workforce: Charting Opportunity and Innovation”. <i>Phi Beta Kappa (PBK) Honor Society, Alpha Chapter, Virginia</i> Amount: \$2000
2024	Travel Award for Keynote Speaker at Society for Neuroscience (SfN) <i>ALBA Network, Federation of European Neuroscience Societies (FENS)</i> Amount: 1200 Euros
2014-2019	PI, <i>International Max Planck Research School Fellowship</i> Amount: 50,400 Euros
2009-2014	<i>Kishore Vaigyanik Protsahan Yojana (KVPY; English: Young Scientist Incentive Plan) Fellowship, Department of Science and Technology, Government of India</i> Amount: 464,000 INR/ \$9000

ACADEMIC SCHOLARSHIP: REVIEWED RESEARCH ARTICLES

- 2026 Nofal, M., Ferrer-Espada, R., Ganguly, P., & **Chugh, M.*** (2026). US Visa Bureaucracy and Its Burdens Among Early Career Scholars. *Nature Biotechnology*. 44(8), 1406-1410. Also, available on *bioRxiv*. ***Corresponding author** [Policy]
- 2025 Leong, S. Y., Muras, L., Fischer, B. S., Jang, S., Gurskaya, A., **Chugh, M.**, ... & Schäffer, E. (2025). The tail domain of the plant kinesin-12 POK2 is a versatile interaction hub. *Journal of Cell Science*, 138(19), jcs263785. [Biology]
- 2024 **Chugh, M.***, & Joseph. T. Citizenship privilege harms science. *Nature*, 628(8008), 499-501. [Policy]
- 2023 **Chugh, M.*** (2023). Calling for institutional reform by compensating early career researchers for diversity labor. *Trends in Microbiology*, 31(4), 332-335. [Policy]
- 2023 Yalcin, E., Martinez-Corral, R., & **Chugh, M.***. Retaining postdocs by recognizing their worth. *Nature Biotechnology*, 41(2), 296-298. [Policy]
- 2022 **Chugh, M.***, Munjal, A., & Megason, S. G. (2022). Hydrostatic pressure as a driver of cell and tissue morphogenesis. In *Seminars in Cell & Developmental Biology* (Vol. 131, pp. 134-145). [Biology]
- 2020 Bugiel, M., **Chugh, M.**, Jachowski, T. J., Schäffer, E., & Jannasch, A. The kinesin-8 Kip3 depolymerizes microtubules with a collective force-dependent mechanism. *Biophysical Journal*, 118(8), 1958-1967. [Biology]
- 2018 **Chugh, M.**, Reißner, M., Bugiel, M., Lipka, E., Herrmann, A., Roy, B., ... & Schäffer, E. (2018). Phragmoplast orienting kinesin 2 is a weak motor switching between processive and diffusive modes. *Biophysical Journal*, 115(2), 375-385. [Biology]
- 2017 Schellhaus, A. K., Moreno-Andrés, D., **Chugh, M.**, Yokoyama, H., Moschopoulou, A., De, S., ... & Antonin, W. Developmentally Regulated GTP binding protein 1 (DRG1) controls microtubule dynamics. *Scientific Reports*, 7(1), 9996. [Biology]
- 2017 Livanos, P., **Chugh, M.**, & Müller, S. Analysis of phragmoplast kinetics during plant cytokinesis. *Plant protein secretion: methods and protocols*, 137-150. [Biology]
- 2016 Dey, N. S., Ramesh, P., **Chugh, M.**, Mandal, S., & Mandal, L. Dpp dependent Hematopoietic stem cells give rise to Hh dependent blood progenitors in larval lymph gland of Drosophila. *eLife*, 5, e18295. [Biology]

ACADEMIC SCHOLARSHIP: WORKS IN PREPARATION OR FORTHCOMING

- 2026 Cheruiyot, A. & **Chugh, M.*** Institutional Associations as Levers of Structural Change: Lessons from Harvard Medical Postdoctoral Associations. *Understanding Membership Diversity and Supporting Equitable STEM Communities: Scientific Societies and Professional Organizations Case Studies*, edited by Candice Etson, Taylor Lightner, and Robin Greenler. (In press, Bloomsbury Publishers) [Policy]
- 2026 **Chugh, M.*** A Calibration-First Assessment Model for Mixed Level Seminar Courses. (*College Teaching Research Article*, in review) [Policy/SoTL]
- 2026 Mujumdar, A.#, Choudhary, B.#, **Chugh, M.*** Different Titles, Similar Expectations? Comparing Promotion and Evaluation Criteria for Tenure and Non-Tenure Track Faculty at R1 Universities. (*Research in Higher Education*, *Research Article*, in prep.) [Policy] #Undergraduate author

- 2026 **Chugh, M.*** The Invisible Infrastructure of Research Impact (*Impact Journal*, inaugural issue, invited conceptual paper in prep.)

PUBLIC SCHOLARSHIP: OP-EDS, EDITORIALS, ESSAYS, ARTICLES, & POLICY LETTERS

- 2026 Anselmo, B.#, & **Chugh, M.*** Public Health Metrics Must Be Central To Energy Utility Policy As Electricity Demand Soars. *Federation of American Scientists*. [Policy Memo] #Undergraduate author
- 2026 **Chugh, M.** I was set to lead an undergraduate research trip abroad. Then, my visa was denied. *Nature*, 652(8112), 1416-1417. [Essay]
- 2026 **Chugh, M.** What Zohran Mamdani can teach us about changing the publishing system. *Times Higher Education*. [Op-Ed]
- 2025 Coates, J. and **Chugh, M.** Open Science: An Antidote to Anti-Science. *The Scientist*. [Op-Ed]
- 2025 **Chugh, M.** and Coates, J. Science is Under Siege: The open science community must act and lead by example. *Upstream*. [Op-Ed]
- 2025 Tian, R.#, Kalkunte, K.#, Pia, E.#, Dunn, G.#, Bugg, N.#, & **Chugh, M.** (2025). The impact on undergraduate students. *eLife*, 14, e106705. #Undergraduate author [Article]
- 2025 Scientific Publishing: How and why eLife selects papers for review. *eLife*, 13:e100571 [Editorial]
- 2024 Singh, G., Teng, D., Turki, H., Bouchard, L. F., Chen, Y., **Chugh, M.**, ... & Sharma, V. Changing outdated expectations. *Science*, 383(6678), 24-26. [Policy Letter]
- 2023 da Silva, C. F. A., Virgüez, E., Eker, S., Zdenek, C. N., Bergh, C., Gerarduzzi, C., ... & **Chugh, M.** The future of scientific societies. *Science*, 380(6640), 30-32. [Policy Letter]
- 2023 **Chugh, M.** (2023). Visas: speed up processing to boost inclusivity. *Nature*, 615(7950), 34-34. [Policy Letter]
- 2023 **Chugh, M.** & Polka, J. (2023) Congress could stop free public access to government-funded research. *STAT First Opinion*. [Op-Ed]
- 2023 **Chugh, M.** & Skowyra, M. (2023) Response to NIH RFI on Re-envisioning US Postdoctoral Research. *HMPA*. [Policy Letter]
- 2023 **Chugh, M.** (2023) Science is more than sum of research. *The node - The company of Biologists*. Commissioned for new series: Honest Conversations. [Essay]
- 2020 **Chugh, M.** Back to bench is resetting my mental clock. *The node - The company of Biologists*. The most-read article of the year and translated in Chinese to reach Chinese audiences via social media. [Essay]
- 2019 **Chugh, M.**, & Hermsdorf, G. Homemade low-frequency vibration isolation system matches or exceeds commercial options. *Laser Focus World*, 55(10). [Article]

MENTORED STUDENTS

Doctoral Students (1 current)

Hannah Wallace, current, UMBC with Dr. Cheng-Yu Li

Master's Students (7 past and 11 current)

Russel Hong, current, Applied Molecular Biology, UMBC
 Kimia Kardani Yazd, current, Applied Molecular Biology, UMBC
 Kathryn Chrzanowski, current, Applied Molecular Biology, UMBC
 Romina Daraei Baf, current, Applied Molecular Biology, UMBC
 Ankit Patel, current, Applied Molecular Biology, UMBC
 Mathieu Niel, current, Applied Molecular Biology, UMBC
 Sophia Heller, current, Applied Molecular Biology, UMBC
 Geneva Mon, current, Applied Molecular Biology, UMBC
 Elise Overton, current, Applied Molecular Biology, UMBC
 Danielle Boyd, current, Applied Molecular Biology, UMBC
 Cole Cheng, 2026 Applied Molecular Biology, UMBC with co-advisor Dr. Achuth Padmanabhan
 Courtney De Leon, 2026, Applied Molecular Biology, UMBC with co-advisor Dr. Carmen Ballester
 Hannah Wallace, 2026, Applied Molecular Biology, UMBC with co-advisor Dr. Cheng-Yu Li
 Joash Thomas, 2026, Applied Molecular Biology, UMBC with co-advisor Dr. Chuck Bieberich
 Nicky Wroten, 2026, Applied Molecular Biology, UMBC with co-advisor Dr. Gretchen Alicea
 Rachel Manning, 2026, Applied Molecular Biology, UMBC with co-advisor Jeffrey Gardner
 Benedikt Fischer 2018, Eberhard Karls University with co-advisor Dr. Erik Schaeffer

Undergraduate Students (11 past and 3 current)

Bilal Choudhary, current, ReForm Lab Research Mentor, UMBC
 Bereket Tewodros, current, ReForm Lab Research Mentor, UMBC
 Keziah John, current, ReForm Lab Research Mentor, UMBC
 Sarah Katherine Patterson 2025, Honors Thesis, Committee, William & Mary
 Annie Yang 2025, Tyler Summer Fellowship Scholar, ReForm Lab Research Mentor, William & Mary
 Brendan Anselmo 2025, Monroe Scholar, ReForm Lab Research Mentor, William & Mary
 Sarah Morrid 2025, ReForm Lab Research Mentor, William & Mary
 Vanessa Yen 2025, ReForm Lab Research Mentor, William & Mary
 Kamna Kulkante 2025, ReForm Lab Research Mentor, William & Mary
 Gianna Dunn 2025, ReForm Lab Research Mentor, William & Mary
 Esha Pai 2025, ReForm Lab Research Mentor, William & Mary
 Reenie Tian 2025, ReForm Lab Research Mentor, William & Mary
 Nina Bugg 2025, ReForm Lab Research Mentor, William & Mary
 Max Devine 2023, Summer Research Mentor, Harvard Medical School with Dr. Sean Megason

High School Students (1 current and 1 past)

Arjun Mujumdar (Poolesville High School), current, Research Mentor, UMBC
 Tejashri Aravinth (Northwest High School), Research Mentor, UMBC

TEACHING

Summer 2026	BIOL340L: Developmental Biology Lab, UMBC
Summer 2026	BIOL420: Advanced Topics in Cell Biology, UMBC
Spring 2026	BIOL 499: Independent Research, UMBC [POLICY]
Spring 2026	BIOL 636L: Advanced Molecular Biology Laboratory II, UMBC
Fall 2025, Fall 2026	BIOL 635L: Advanced Molecular Biology Laboratory, UMBC
Summer 2025	BIOL 404: From Lab to Governance: Conducting, Reporting, & Regulating Biomedical Research, William & Mary [POLICY]
Spring 2025	GSWS480: Directed Research—Science, Society, and AI, William & Mary [POLICY]

- Spring 2025, Fall 2024 BIOL 310: Molecular Cell Biology, William & Mary
- Spring 2025, Fall 2024 BIOL 460: Design Principles: How to build an organ, William & Mary
- Spring 2025, Fall 2024 BIOL 444: Mentored teaching in Biology, William & Mary

PRESENTATIONS: POLICY, BIOLOGY, & PROFESSIONAL

- 2026 A Calibration-First Assessment Model for Mixed-Level Seminar Courses. Invited Poster Presentation. Tenth Annual Provost's Teaching & Learning Symposium. Oct 02. [SoTL/Policy]
- 2026 Academia on Your Own Terms. Invited Speaker at *Max Planck Institute for Biology*, Tübingen. Remote, July 16. [Professional]
- 2025 How Forces Shape Life: Linking Molecular Pathways to Tissue Design. Invited Speaker at *Bard College*. Annandale-on-Hudson, Apr 22. [Biology]
- 2025 From Farm to Table: Molecular Cloning. Invited Speaker at *University of Maryland, Baltimore County*. Baltimore, Apr 4. [Biology]
- 2024 Invited Panelist at *RCR workshop on Scientific Citizenship* by Office for Postdoctoral Fellows, Harvard Medical School. Remote, Dec 18. [Policy]
- 2024 Postdoctoral Research: A game of difficult choices? Invited Keynote Speaker at *SfN: Society for Neuroscience* by ALBA Diversity Network and IBRO, Chicago, Oct 6-9. [Policy]
- 2024 Invited Panel Speaker on Community and Science at *Gordon Conference on Acoustic Systems*. Bryant University, Rhode Island, Jul 14-19. [Policy]
- 2024 Data-Driven Change: Tackling Knowledge Divides for Early Career Researchers. Invited Speaker, *Columbia University*. New York, Apr 23. [Policy]
- 2023 Equity, Opportunity, and Support for Early Career Researchers. Invited Speaker, *Yale University*. New Haven, Dec 15. [Policy]
- 2023 A Break in the Inclusive Excellence Continuum. Invited Speaker, *Einstein Foundation and Berlin Institute of Health Unconference*. Virtual, Nov. [Policy]
- 2023 Equity, Opportunity, and Support for Early Career Researchers. Keynote Speaker, *The George Washington University*. Remote, Sept 5. [Policy/Professional]
- 2023 Open Access Science for Marginalised Scholars and Researchers. Listening Session Speaker, *National Institute of Health (NIH)*. Remote, Aug 18. [Policy]
- 2023 Open Access Science for Marginalised Scholars and Researchers. Listening Session Speaker, *The Office of Science Policy and Technology (OSTP), The US White House*. Remote, Jul 11. [Policy]
- 2023 Reforming Compensation and Retaining Postdocs by Recognising Their Worth. Selected Speaker, *National Postdoctoral Association Annual Meeting*, Apr 21-22, Philadelphia. [Policy]
- 2023 Reforming Compensation and Retaining Postdocs by Recognising Their Worth. Invited Speaker, *Boston Postdoctoral Association Seminar Series*. Boston, March 15. [Policy]
- 2022 (Poster) Chugh, M. and Megason, S. Mechanistic Understanding of Transepithelial Fluid Transport. Poster presentation, *American Society for Cell Biology (ASCB) and European Molecular Biology Organisation (EMBO) Meeting*. Washington, D.C., Dec 3-7. [Biology]
- 2019 Orienting new cell walls in *Arabidopsis thaliana* with kinesin-12 members, POK1 and POK2. Invited Speaker, *Institute Curie*. Paris, Apr 19. [Biology]

- 2019 Orienting new cell walls in *Arabidopsis thaliana* with kinesin-12 members, POK1 and POK2. Invited Speaker, *Harvard University*. Boston, Apr 8. [Biology]
- 2017 (Talk) Aligning New Cell Walls in Plants. Speaker, *European Plant Cytoskeleton Club Meeting*. Karlsruhe, Jun 19-20. [Biology]
- 2016 (Talk) POK2 is a Plus-End Directed Weak Molecular Motor. Invited Speaker, *European Plant Cytoskeleton Club Meeting*. Prague, Jun 21-22. [Biology]
- 2016 (Poster) Chugh, M., Reissner, M., Bugiel, M., Mueller, S., and Schaeffer, E. POK2 is a Plus-End Directed Weak Molecular Motor. Poster presentation, *EMBO/EMBL Symposium, From Atoms to Complex Systems*. Heidelberg, May 29 - Jun 1. [Biology]

SELECTED MEDIA

- 2025 ‘Lipstick on a pig’: how to fight against a peer-review bully. *Nature*
- 2025 Static pay, shrinking prospects fuel neuroscience postdoc decline. *The Transmitter*.
- 2024 eLife Community Voices Podcast, *eLife*.
- 2024 NIH postdocs will get a raise next year—but not as much as they hoped, *STAT News*.
- 2024 Social Inequality in STEM, Harvard Catalyst podcast, *Think Research*.
- 2023 NIH panel calls for fewer, better-paid postdocs in bid to halt loss of scientists to industry, *STAT News*.
- 2023 Academia’s postdoc system is teetering, imperilling efforts to diversify life sciences, *STAT News*.
- 2023 To diversify the scientific workforce, postdoc recruitment needs a rethink, *Nature*.
- 2023 Putting a value on postdocs, *The George Washington Today*.
- 2023 Harvard postdocs call for an increased pay in open letter to university, *The Harvard Crimson*.
- 2023 Early Career Researcher Special Episode, *Preprints in Motion, Podcast*.
- 2023 Academic workers rally for union recognition, *Harvard Magazine*.

CREATIVE ACHIEVEMENTS: NON-JURIED WORKS

- 2026 Group Exhibition: Absolute Alternatives (Maleke Glee), *Center for Art Design and Visual Culture (CADVC)*, Baltimore, Jan 19-Feb 28.
- 2026 I echo, You blink, *Maryland Bards Poetry Review Anthology*
- 2025 The Love He Could Give, *The New York Times*
- 2024 Behind Our Science podcast, Poetry Month Episode
- 2023 Open Reading, Boston Free Radio, Somerville, MA
- 2022 When we were young, *Frontier Poetry*
- 2022 Their guide to colourful sleep in America, *The Lumiere Review (Justice Issue)*

2022 Rembrandt's Seascape, *Narrative Northeast*

2022 Group exhibition, Through These Realities (Joshua Sariñana), *Arts at the Armory*, May1- July 30.

CREATIVE ACHIEVEMENTS: JURIED WORKS

2023 When We Were Young, *Boston Mayor's Poetry Program* and exhibited at the *Boston City Hall*

2021 Cat in the Church, Winner of the 'Through These Realities' New England Poetry Contest

SERVICE: DEPARTMENT, COLLEGE, & UNIVERSITY

2026 Panelist, New Faculty Orientation, Office of the Provost, UMBC

2026– Present Member, Governing Committee, The Human Contexts of Science and Technology College of Arts, Humanities, & Social Sciences, UMBC

2026 Judge, Poster Session, Graduate Association of Biological Sciences, UMBC

2026 Judge, Poster Session, Graduate Experiences, Achievements, and Research Successes, UMBC

2025 – Present Director, Applied Molecular Biology (AMB) Graduate Program, UMBC

2025 – Present Member, Department of Biological Sciences, Graduate Committee, UMBC

2025 – Present Member, Department of Biological Sciences, Outreach Committee, UMBC

2025 – Present Member, Department of Biological Sciences, Teaching Circle, UMBC

2025 Organizer, Movie Night 'Immortal Life of Henrietta Lacks' with Human Context of Science and Technology (HCST) Program, UMBC

2025 Director, Study Abroad Program Cape Town, South Africa, William & Mary

2021 – 2023 Chair, Systems Biology Departmental Committee on Fair Recruitment of Postdocs & Faculty, Harvard Medical School

2021 – 2022 Member, Department of Systems Biology, Systems Seminar Organization Committee, Harvard Medical School

2016 – 2019 Manager, Department of Cellular Nanoscience, Laboratory Waste Management & Disposal, Center for Plant Molecular Biology at Eberhard Karls University

2015 – 2016 Organiser, Annual Max Planck Tübingen PhD Retreat, held at Meersburg, Germany

SERVICE: COMMUNITY & PROFESSION

2026 – Present Member, SSN Academics in Annapolis, Maryland Legislative Assembly Session 2026

2026 – Present Board of Reviewing Editors, *eLife*

2026 Host, 3rd Annual Invitational Science Olympiad Division C 'Disease Detectives', UMBC

2022 Judge, Massachusetts Region V Science and Engineering Fair

2022 Piloting Member, Anti-Racism Course for Postdocs, Harvard Medical School

2021 – 2023 Teacher, Calculus Project—Minority Student Increment Initiative, Harvard Medical School

2018 – Present Peer-reviewer for journals:

Frontiers in Education,
Journal of Microbiology and Biology Education,
Frontiers in Cell and Developmental Biology,
eLife,
Nature communications,
Biophysical Journal,
mSphere
Developmental Biology

2021– Present Member, American Society of Cell Biology (ASCB), Scholars Strategy Network (SSN), and ASAPbio

2026 National Science Foundation (NSF), Reviewing Panel on Undergraduate Science Education (S-STEM)