

CURRICULUM VITAE

MAYANK CHUGH

EDUCATION

Ph.D. (Dr. rer. nat.)	2019	Eberhard Karls University (Tübingen) & Max Planck Institute for Developmental Biology, <i>Cell Biology & Biophysics</i>
B.S.-M.S. (Dual Degree)	2014	Indian Institute of Science Education and Research (IISER Mohali), <i>Biology</i>

Experience in Higher Education

2025 – Present	University of Maryland, Baltimore County (UMBC), Assistant Teaching Professor, Biology Affiliate Faculty, The Human Context of Science & Technology
2024 – 2025	College of William & Mary, Visiting Assistant Teaching Professor, Biology Affiliate Faculty, Gender, Sexuality & Women's Studies

Experience in Other than Higher Education

2026 – Present	eLife Sciences Publication, Ltd, Board of Reviewing Editors
2025 – Present	Scientific Citizenship Initiative (SCi), Advisory Council Member for Massachusetts Science Policy Fellowship
2024 – Present	Journal of Emerging Investigators (JEI), Chair, Board of Directors
2023 – Present	eLife Sciences Publication, Ltd, Co-Chair, Early Career Advisory Group
2020 – 2024	Harvard Medical School, Postdoctoral Fellow, Systems Biology <i>Advisor: Dr. Sean Megason</i>
2021 – 2023	Harvard Medical Postdoc Association, Chair, Governing Board
2019 – 2020	Eberhard Karls University, Postdoctoral Fellow, Biophysics <i>Advisor: Dr. Erik Schaeffer</i>
2014 – 2019	Eberhard Karls University, PhD Candidate, Cell Biology & Biophysics <i>Advisor: Dr. Erik Schaeffer and Dr. Sabine Mueller</i>
2013 – 2014	IISER Mohali, Master's Thesis, Developmental Genetics <i>Advisor: Dr. Lolitika Mandal</i>

Honors Received

2026	Hrabowski Innovation Award, UMBC
2024	Phi Beta Kappa (PBK) Honor Society, Scholar-in-Residence Award, Alpha Chapter, Virginia at William & Mary
2024	Equity, Social Justice, and Advocacy Award, Harvard Medical School
2014	Award for Overall Academic Excellence in Biology, IISER Mohali

Research Support and/or Fellowships

2026	Hrabowski Innovation Award, PI
2024	Travel Award (1200 Euros), International Brain Research Organization (IBRO) and ALBA Network, PI
2014 – 2019	International Max Planck Research School Fellowship, PI
2009 – 2014	Kishor Vaigyanik Protsahan Yojana (KVPY), Government of India, PI

MENTORED STUDENTS**Doctoral Students (1 current)**

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

Master's Students (7 past and 1 current)

Russel Hong, current, Applied Molecular Biology

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 M. 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 and Dr. Xiang Li

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 2 current)

Bereket Tewodros, current, Research Mentor, UMBC

Keziah John, current, Research Mentor, UMBC

Sarah Katherine Patterson 2025, Honors Thesis, Committee, William & Mary

Annie Yang 2025, Tyler Summer Fellowship Scholar, Research Mentor, William & Mary

Brendan Anselmo 2025, Monroe Scholar, Research Mentor, William & Mary

Sarah Morrid 2025, Research Mentor, William & Mary

Vanessa Yen 2025, Research Mentor, William & Mary

Kamna Kulkante 2025, Research Mentor, William & Mary

Gianna Dunn 2025, Research Mentor, William & Mary

Esha Pai 2025, Research Mentor, William & Mary

Reenie Tian 2025, Research Mentor, William & Mary

Nina Bugg 2025, Research Mentor, William & Mary

Max Devine 2023, Summer Research Mentor, Harvard Medical School with co-mentor Dr. Sean Megason

High School Students (2 current)

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

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

COURSES TAUGHT

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

PUBLICATIONS, PRESENTATIONS, AND CREATIVE ACHIEVEMENTS

Peer-Reviewed Research Articles

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.

Bugiel, M., **Chugh, M.**, Jachowski, T. J., Schäffer, E., & Jannasch, A. (2020). The kinesin-8 Kip3 depolymerizes microtubules with a collective force-dependent mechanism. *Biophysical Journal*, 118(8), 1958-1967.

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.

Schellhaus, A. K., Moreno-Andrés, D., **Chugh, M.**, Yokoyama, H., Moschopoulou, A., De, S., ... & Antonin, W. (2017). Developmentally Regulated GTP binding protein 1 (DRG1) controls microtubule dynamics. *Scientific Reports*, 7(1), 9996.

Dey, N. S., Ramesh, P., **Chugh, M.**, Mandal, S., & Mandal, L. (2016). Dpp dependent Hematopoietic stem cells give rise to Hh dependent blood progenitors in larval lymph gland of *Drosophila*. *eLife*, 5, e18295.

Peer-Reviewed Reviews

Chugh, M. (2023). Calling for institutional reform by compensating early career researchers for diversity labor. *Trends in Microbiology*, 31(4), 332-335.

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).

Peer-Reviewed Chapters in Books

Livanos, P., **Chugh, M.**, & Müller, S. (2017). Analysis of phragmoplast kinetics during plant cytokinesis. *Plant protein secretion: methods and protocols*, 137-150.

Editorially Peer-Reviewed Research Articles

Chugh, M., & Joseph, T. (2024). Citizenship privilege harms science. *Nature*, 628(8008), 499-501.

Yalcin, E., Martinez-Corral, R., & **Chugh, M.** (2023). Retaining postdocs by recognizing their worth. *nature biotechnology*, 41(2), 296-298.

Non-Peer-Reviewed Works: Letters to Editors

Tian, R. *, Kalkunte, K. *, Pia, E. *, Dunn, G. *, Bugg, N. *, & **Chugh, M.** (2025). The impact on undergraduate students. *eLife*, 14, e106705. *Undergraduate author

Singh, G., Teng, D., Turki, H., Bouchard, L. F., Chen, Y., **Chugh, M.**, ... & Sharma, V. (2024). Changing outdated expectations. *Science*, 383(6678), 24-26.

da Silva, C. F. A., Virgüez, E., Eker, S., Zdenek, C. N., Bergh, C., Gerarduzzi, C., ... & **Chugh, M.** (2023). The future of scientific societies. *Science*, 380(6640), 30-32.

Chugh, M. (2023). Visas: speed up processing to boost inclusivity. *Nature*, 615(7950), 34-34.

Non-Peer-Reviewed Works: Op-Eds, Essays, and Editorials

Chugh, M. (2026). I was set to lead an undergraduate research trip abroad. Then, my visa was denied. *Nature*, 652(8112), 1416-1417.

Chugh, M. (2026) What Zohran Mamdani can teach us about changing the publishing system. *Times Higher Education*.

Coates, J. and **Chugh, M.** (2025) Open Science: An Antidote to Anti-Science. *The Scientist*.

Chugh, M. and Coates, J. (2025) Science is Under Siege: The open science community must act and lead by example. *Upstream*.

Editorial (2025); Scientific Publishing: How and why eLife selects papers for review. *eLife*, 13:e100571

Chugh, M. & Polka, J. (2023) Congress could stop free public access to government-funded research. *STAT First Opinion*.

Chugh, M. & Skowyra, M. (2023) Response to NIH RFI on Re-envisioning US Postdoctoral Research. *HMPA*.

Chugh, M. (2023) Science is more than sum of research. *The node -The company of Biologists*. Commissioned for new series: Honest Conversations.

Chugh, M. (2020) 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.

Chugh, M., & Hermsdorf, G. (2019) Homemade low-frequency vibration isolation system matches or exceeds commercial options. *Laser Focus World*, 55(10).

Hmadi, R., Jeschke, A., **Chugh, M.**, Ilangovan, V. (2018) Hacking genomes using CRISPR. *The Offspring Magazine*, 20-21.

Chugh, M. (2017) In conversation with Prof. Marja Timmermans. *The Offspring Magazine*, 5-6.

Chugh, M. (2017) A journey decoded. *The Offspring Magazine*, 12-13.

Chugh, M. (2014) Resonance: bringing together disciplines. *Current Science*, 106(5), 655-657

Works Accepted or In Preparation: Peer-Reviewed Articles

Nofal, M., Ferrer-Espada, R., Ganguly, P., & **Chugh, M.** (2026). US Visa Bureaucracy and Its Burdens Among Early Career Scholars. *Nature Biotechnology* (In press).

Anselmo, B., & **Chugh, M.** Centering Public Health in Low-Carbon Energy Utility Policy. *Federation of American Scientists as a Policy Memo*. (In review)

Devine, M., Megason, S., **Chugh, M.** An Ion Channel Expression Atlas of the Early Zebrafish Inner Ear. (In preparation).

Chugh, M., Kreeger, L., Goodrich, L., Megason, S. Electrochemical Potential Across Developing Zebrafish Organs. (In preparation).

Chugh, M., Oh, S., Megason, S. Direct Visualization of Water Transport Dynamics During Vertebrate Inner Ear Formation. (In preparation).

Works Submitted or In Preparation: Peer-Reviewed Chapters in Books

Cheruiyot, A. & **Chugh, M.** (2026) Institutional Associations as Levers of Structural Change: Lessons from Harvard Medical Postdoctoral Associations. To be published in the book entitled '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)

Presentations

Conference and Poster Presentations

- 2024 (Talk) 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.
- 2024 (Talk) Invited Panel Speaker on Community and Science at *Gordon Conference on Acoustic Systems*. Bryant University, Rhode Island, Jul 14-19.
- 2023 (Talk) A Break in the Inclusive Excellence Continuum. Invited Speaker, *Einstein Foundation and Berlin Institute of Health Unconference*. Virtual, Nov.
- 2023 (Talk) Reforming Compensation and Retaining Postdocs By Recognising Their Worth. Selected Speaker, *National Postdoctoral Association Annual Meeting*, Apr 21-22, Philadelphia.
- 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.
- 2017 (Talk) Aligning New Cell Walls in Plants. Speaker, *European Plant Cytoskeleton Club Meeting*. Kalsruhe, Jun 19-20.
- 2016 (Talk) POK2 is a Plus-End Directed Weak Molecular Motor. Invited Speaker, *European Plant Cytoskeleton Club Meeting*. Prague, Jun 21-22.
- 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.
- 2014 (Talk) Biological Interests Spanning Scales. Speaker, *Max Planck Institute for Biology*. Tübingen, May 5-9.

Other Professional Presentations

- 2025 How Forces Shape Life: Linking Molecular Pathways to Tissue Design. Invited Speaker at *Bard College*. Annandale-on-Hudson, Apr 22.
- 2025 From Farm to Table: Molecular Cloning. Invited Speaker at *University of Maryland, Baltimore County*. Baltimore, Apr 4.
- 2024 Invited Panelist at *RCR workshop on Scientific Citizenship* by Office for Postdoctoral Fellows, Harvard Medical School. Remote, Dec 18.
- 2024 Data-Driven Change: Tackling Knowledge Divides for Early Career Researchers. Invited Speaker, *Columbia University*. New York, Apr 23.
- 2023 Equity, Opportunity, and Support for Early Career Researchers. Invited Speaker, *Yale University*. New Haven, Dec 15.
- 2023 Equity, Opportunity, and Support for Early Career Researchers. Keynote Speaker, *The George Washington University*. Remote, Sept 5.
- 2023 Open Access Science for Marginalised Scholars and Researchers. Listening Session Speaker, *National Institute of Health (NIH)*. Remote, Aug 18.
- 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.
- 2023 Reforming Compensation and Retaining Postdocs By Recognising Their Worth. Invited Speaker, *Boston Postdoctoral Association Seminar Series*. Boston, March 15.
- 2019 Orienting new cell walls in Arabidopsis thaliana with kinesin-12 members, POK1 and POK2. Invited Speaker, *Institute Curie*. Paris, Apr 19.
- 2019 Orienting new cell walls in Arabidopsis thaliana with kinesin-12 members, POK1 and POK2. Invited Speaker, *Harvard University*. Boston, Apr 8.

Media Activities

- 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 Data-Driven Change Making, *Harvard Catalyst*.
- 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*.
- 2019 That’s my science, *Tübingen Research Campus*.

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.

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 TO THE DEPARTMENT, UNIVERSITY, COMMUNITY AND PROFESSION**Service to the Department & University**

- 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 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 to the Community

Winter 2026 Host, 3rd Annual Invitational Science Olympiad Division C ‘Disease Detectives’, UMBC
 Fall 2025 Organizer, Movie Night ‘Immortal Life of Henrietta Lacks’ with Human Context in Science and
 Technology (HCST) Program, 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

Service to the Profession

2026 – Present Member, SSN Academics in Annapolis, Maryland Legislative Assembly Session 2026
 2026 – Present Reviewing Editor, *eLife*
 2018 – Present Peer-reviewer for journals: *Frontiers in Cell and Developmental Biology*, *eLife*, *Nature communications*, *Biophysical Journal*, *Frontiers in Education*, *Journal of Microbiology and Biology Education*, *mSphere*
 2021– Present Member, American Society of Cell Biology (ASCB), Scholars Strategy Network (SSN), and ASAPbio