

# Medha M. Pathak, Ph.D.

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## EDUCATION

<b>University of California, Berkeley</b> - Berkeley, California Ph.D., Biophysics	2006
<b>National Centre for Biological Sciences</b> - Bangalore, India M.Sc., Life Sciences (Neuroscience)	2000
<b>St. Xavier's College</b> - Ahmedabad, India B.Sc. Biochemistry & Chemistry	1996

## RESEARCH POSITIONS

<b>Associate Professor</b> , Department of Physiology & Biophysics Joint appointment in the Department of Biomedical Engineering <i>University of California, Irvine - Irvine, California</i> <ul style="list-style-type: none"><li>Research area: Mechanical forces in development and repair at the molecular, cellular and organismal level</li></ul>	6/2023 - Present 4/2019 - Present
<b>Assistant Professor</b> , Department of Physiology & Biophysics <i>University of California, Irvine - Irvine, California</i> <ul style="list-style-type: none"><li>Research area: Mechanical forces in development and repair at the molecular, cellular and organismal level</li></ul>	6/2016 - 6/2013
<b>Assistant Researcher</b> , Department of Physiology & Biophysics <i>University of California, Irvine - Irvine, California</i> <ul style="list-style-type: none"><li>Research area: Piezo1 in human neural stem cell mechano-regulation</li></ul>	4/2015 - 5/2016
<b>Associate Specialist</b> , Department of Physiology & Biophysics <i>University of California, Irvine - Irvine, California</i> <ul style="list-style-type: none"><li>Advisors: Francesco Tombola and Lisa Flanagan</li><li>Project: Physiology and biophysics of mechanically-gated and voltage-gated ion channels</li></ul>	1/2011 - 3/2015
<b>Postdoctoral Fellow</b> <i>Harvard Medical School - Boston, Massachusetts</i> <ul style="list-style-type: none"><li>Advisor: David P. Corey.</li><li>Project: Mapping components of the inner ear hair cell transduction machinery</li></ul>	12/2006 - 12/2010
<b>Postdoctoral Fellow</b> <b>Graduate Student</b> <i>University of California, Berkeley - Berkeley, California</i> <ul style="list-style-type: none"><li>Advisor: Ehud Y. Isacoff</li><li>Thesis: Watching an ion channel at work: fluorescence measurements of ion channel dynamics</li></ul>	6/2006 - 9/2006 8/2000 - 5/2006
<b>National Centre for Biological Sciences</b> - Bangalore, India <ul style="list-style-type: none"><li>Advisor: Upinder S. Bhalla</li></ul>	8/1996 - 7/2020

- Master's thesis: Development of a fiber-optic technique for fluorescence recordings
- Madurai Kamraj University** - Madurai, India 5/1996 - 6/1996
- Advisor: K. Veluthambi
  - Summer research project: Restriction mapping and subcloning of DNA B of Vigna mungo yellow mosaic virus
- St. Xavier's College**, Ahmedabad, India 6/1995 - 5/1996
- Advisor: Fr. Vincent J. Braganza
  - Undergraduate research project: Protoplast fusion and somatic embryogenesis of rice

## HONORS

- 2022 Early Investigator Award**, Mechanobiology Subgroup, Biophysical Society 2022
- Honorable Mention, 2022 Outstanding Early-Career Faculty Research Award (Basic Science)**, UCI School of Medicine 2022
- Women's Leadership Academy**, UCI School of Medicine 2021 - 2022
- HHMI Gilliam Fellowship for Advanced Study**, Howard Hughes Medical Institute 2019
- UCI Chancellor's Award for Excellence in Undergraduate Research Mentoring** 2018
- ADVANCE Faculty Career Development Award**, UCI 2018
- Junior Faculty Networking Cohort**, Journal of General Physiology 2017
- Outstanding Paper of the year** for Pathak *et al.* J.Gen.Physiol. 2016
- Cranefield award to senior author, Francesco Tombola
- GSK Neuroscience Discovery Award**, FASEB Ion Channel Regulation Conference 2015
- Travel award: Force-Gated Ion Channels**, Janelia Farms Research Campus 2015
- The "Cahalan Buck" Research Accomplishments Award**, UCI Dept. of Physio. & Biophysics 2014
- Helen Hay Whitney Postdoctoral Fellowship** 2008 - 2011
- Travel award: Force-Gated Ion Channels**, Janelia Farms Research Campus 2008
- Travel award: Young Investigator Meeting**, Poovar, India 2009
- Travel award: Biology of the Inner Ear**, MBL, Woods Hole, Massachusetts 2007
- Travel award: Gordon Conference on Mechanotransduction & Gravity Signaling** 2005
- Junior Research Fellowship**, National Centre for Biological Sciences, Bangalore, India 1996 - 2000
- 4 of 6000 applicants chosen
- National Summer Research Fellowship**, JNCASR, India 1996
- Siddharth Bhatt Prize: All-round performance**, St. Xavier's College, Ahmedabad, India 1996
- LUMC Clinical Laboratories Research Fellowship**, St. Xavier's College, Ahmedabad, India 1995 - 1996

## FUNDING

### Active

- NCCIH Grant (5U24AT011969-03)** 4/1/2024 - 3/31/2027  
 Force-Based Manipulations Research Network (ForceNET) \$516,849 annual direct costs  
**Role:** Co-Investigator
- NIH R01 (R01AI151301) grant** 9/1/2020 - 8/31/2025  
 Biophysical regulation of macrophage function \$2,062,810 total direct costs  
**Role:** Co-Investigator

## Completed

<b>SCRC Hyperion Seed Grant</b> Phenotyping of Piezo1-knockout & vascularized human brain organoids via imaging mass cytometry <b>Role:</b> Principal Investigator	5/1/2022 - 4/31/2024 \$25,000 total direct costs
<b>NIH/NINDS Diversity F31</b> Piezo1 Mobility Dynamics in Mechanotransduction <b>Trainee:</b> Alan Ly <b>Role:</b> Advisor	4/1/2022 - 3/31/2024 \$83,148 total direct costs
<b>Center for Multiscale Cell Fate Opportunity Award, UCI (IOA-2105)</b> Modeling PIEZO1 dynamics in keratinocyte migration during skin wound healing <b>Trainee:</b> Jesse Holt <b>Role:</b> Advisor	1/1/2022 - 12/31/2022 \$10,000 total direct costs
<b>California Institute of Regenerative Medicine (CIRM) Training grant (EDUC4-12822) slot</b> The role of Piezo1 in blood-brain-barrier formation and maintenance <b>Trainee:</b> Dr. Elizabeth Evans <b>Role:</b> Advisor	1/1/2022 - 12/31/2023 \$120,000 total direct costs
<b>NIH/NINDS T32 Training Grant (NS082174) slot</b> <b>Title:</b> Piezo1 Mechanotransduction in AD Pathophysiology <b>Trainee:</b> Gabriella Bertaccini <b>Role:</b> Advisor	10/1/2021 - 9/30/2023 \$79,384.60 total direct costs
<b>Center for Advanced Design &amp; Manufacturing of Integrated Microfluidics (CADMIM)</b> Low-Shear Organoid Vortex Array (LOVA)	3/1/2021 - 9/28/2022 \$65,000 (D)
<b>UCI NIAMS P30 Skin Biology Resource-based Center seed grant</b> Piezo1 dynamics in keratinocyte migration during skin wound healing <b>Major goals:</b> The goal of this project is to examine a role for Piezo1 in keratinocyte migration during skin wound healing. <b>Role:</b> MPI with PI Lowengrub	1/1/2021 - 2/28/2021 \$35,000 direct costs
<b>Administrative Supplement to NIH DP2 grant</b> Administrative supplement supports the development of a novel molecular tool to identify mechanoresponsive cells in human brain organoids. <b>Role:</b> Principal Investigator	9/1/2020 - 8/31/2023 \$100,000 total direct costs
<b>Administrative Supplement to NIH DP2 grant</b> Administrative supplement aims to use novel molecular and bioengineering tools to examine the neuromechanobiology of Alzheimer's Disease. <b>Role:</b> Principal Investigator	9/1/2020 - 8/31/2023 \$250,000 total direct costs
<b>NIH R21 grant</b> Regulation of microglia by tissue stiffness and Piezo1 in Alzheimer's disease <b>Role:</b> Co-Investigator	7/1/2020 - 8/31/2022 \$275,000 total direct costs
<b>Administrative Supplement (R01NS109810-03S1) to NIH R01 grant</b> Administrative supplement explores the role of Piezo1 in Alzheimer's Disease pathology <b>Role:</b> Principal Investigator	7/1/2020 - 6/30/2024 \$250,000 total direct costs

<b>NIH R21 grant</b> Mechanical regulation of skin repair and regeneration <b>Role:</b> Co-Investigator	7/1/2020 - 6/30/2022 \$275,000 total direct costs
<b>Diversity supplement to NIH R01 grant</b> This diversity supplement is for the mentoring and support of graduate student Alan Ly. <b>Role:</b> Principal Investigator	4/1/2020 - 3/31/2022 \$79,399 total direct costs
<b>HHMI Gilliam Fellowship for Advanced Studies (GT11549)</b> Functional dynamics of Piezo1 and Traction Forces in Tissue Repair <b>Role:</b> Principal Investigator	9/1/2019 - 8/31/2022 \$150,000 total direct costs
<b>NIH New Innovator Award (DP2AT010376)</b> Building the brain: How mechanical forces shape human neural development <b>Role:</b> Principal Investigator <b>Impact score:</b> 10 (1 <sup>st</sup> percentile)	9/30/2018 - 8/31/2023 \$1,500,000 total direct costs
<b>NIH R01 (1R01NS109810)</b> Piezo1 in neural stem cell mechano-regulation <b>Role:</b> Principal Investigator	9/30/2018 - 6/30/2024 \$223,598 annual direct costs
<b>NSF Conference grant</b> MechBio 2018: The Mechanome in Action <b>Role:</b> Principal Investigator	7/1/2018 - 6/30/2024 \$37,663 total direct costs
<b>NIH R13 Conference grant</b> MechBio 2018: The Mechanome in Action <b>Role:</b> Principal Investigator	7/25/2018 - 7/24/2020 \$23,320 direct costs
<b>UCI Schools of Medicine and Biological Sciences Pilot Funding</b> Molecular and imaging approaches to visualize mechanotransduction in human neural development <b>Role:</b> Principal Investigator	8/1/2017 - 1/31/2019 \$50,000
<b>Sue and Bill Gross Stem Cell Research Center Seed Grant, UCI</b> Piezo1 in human neural stem cells <b>Role:</b> Principal Investigator	2/1/2017 - 7/31/2018 \$25,000
<b>Committee on Research Grant, School of Medicine Seed Grant, UCI</b> Molecular Tools for Imaging Mechanics of Human Neural Development <b>Role:</b> Principal Investigator	7/1/2017 - 6/30/2018 \$10,000
<b>NIH R21</b> Stretch-activated ion channels in human neural stem cell mechanotransduction <b>Role:</b> Co-Investigator (Tombola PI)	2/1/2015 - 1/31/2018 \$275,000
<b>UCI Center for Autism Research and Treatment</b> Membrane biophysical properties and Ca <sup>2+</sup> dynamics in stem cells and neurons from autism spectrum disorders. <b>Role:</b> Senior key personnel (Flanagan & Tombola co-PIs)	7/2013 - 2/2015 \$60,000
<b>Benefunder</b> (Community Outreach Funding)	2015

Using Stem Cells to Repair the Damaged Brain \$4,010  
**Role:** Principal Investigator

**SOM Faculty Research Grant** 7/1/2011 - 5/31/2012  
UCI Academic Senate Council on Research, Computing and Libraries \$7,500  
Biophysical and functional studies on novel mammalian mechanotransduction channels  
**Role:** Co-Investigator (Tombola PI)

**Helen Hay Whitney Fellowship** 4/1/2008 - 3/31/2011  
Mapping components of the hair cell transduction machinery \$138,000  
**Role:** Principal Investigator

## PUBLICATIONS

3840 citations from Google Scholar as of 02/2025  
Profile: [Link](#)

\* denotes Equal Contribution

† denotes Co-corresponding Authors

### Submitted manuscripts

30. Loghmani MT, Keter D, Bove GM, Winkelstein BA, Bulea TC, Olausson H, **Pathak MM**, Powell R, Cook. (2024). A Model to Guide Force-Based Manipulation Research and Practice. *Under consideration at a journal.*

### Published manuscripts

29. Bertaccini GA, Casanellas I, Evans EL, Nourse JL, Dickinson GD, Liu G, Seal S, Ly AT, Holt JR, Wijerathne TD, Yan S, Hui EE, Lacroix JJ, Panicker MM, Upadhyayula S, Parker I, Pathak MM. Visualizing PIEZO1 Localization and Activity in hiPSC-Derived Single Cells and Organoids with HaloTag Technology (2025). *In Press at Nature Communications*. PMID: PMC10769387. doi: [10.1101/2023.12.22.573117](https://doi.org/10.1101/2023.12.22.573117).
28. Ly AT\*, Freitas JA, Bertaccini GA, Dickinson GD, Tobias DJ†, **Pathak MM†**. (2025). Single-particle tracking reveals heterogeneous PIEZO1 diffusion. *Biophysical Journal*. doi: [10.1016/j.bpj.2025.01.010](https://doi.org/10.1016/j.bpj.2025.01.010).
27. Atcha H, Kulkarni D, Meli V, Veerasubramanian P, Cahalan M, Wang Y, **Pathak MM**, Liu W. (2024). Piezo1-mediated mechanotransduction enhances macrophage oxidized low-density lipoprotein uptake and atherogenesis. *PNAS Nexus*. 3(11), pgae436. doi: [10.1093/pnasnexus/pgae436](https://doi.org/10.1093/pnasnexus/pgae436).
26. Chen J\*, Holt JR\*, Evans EL, Lowengrub JS†, **Pathak MM†**. (2024). PIEZO1 regulates leader cell formation and cellular coordination during collective keratinocyte migration. *PLoS Comput Biology*. 2024 Apr 5;20(4):e1011855.
  - Cover article for the journal issue
25. Yang S, Miao X, Arnold S, Li B, Ly AT, Wang H, Wang M, **Pathak MM**, Zhao W, Cox CD, Shi Z. (2022). Membrane curvature governs the distribution of Piezo1 in live cells. *Nature Communications*, 13(7467). doi: <https://doi.org/10.1038/s41467-022-32095-3>.
24. Nourse JL, Leung V, Abuwarda H, Evans EL, Izquierdo-Ortiz E, Ly AT, Truong N, Smith S, Bhavsar H, Bertaccini G, Monuki E, Panicker MM, **Pathak MM**. (2022). Piezo1 regulates cholesterol biosynthesis to influence neural stem cell fate during brain development. *Journal of General Physiology*, 154(10): e202213084. doi: <https://doi.org/10.1085/jgp.202213084>.
  - Discussed in: Surprising discovery by UCI-led team links Piezo1 and cholesterol during brain development. Available at: <https://www.eurekalert.org/news-releases/964041>
  - Altmetric score of 167 (in the 95th percentile of articles of the same age)
  - Featured in the journal's annual Neuroscience Collection as the cover story

23. Holt JR, Zeng W.-Z, Evans EL, Woo S.-H, Ma S, Abuwarda H, Loud M, Patapoutian A†, **Pathak MM**†. (2021). Spatiotemporal dynamics of PIEZO1 localization controls keratinocyte migration during wound healing. *eLife*, 10: e65415. doi: <https://doi.org/10.7554/eLife.65415>.
- Discussed in: UCI researchers reveal critical role of mechanosensor in skin wound healing. Available at: <https://www.eurekalert.org/news-releases/934356>
22. Atcha H, Meli VS, Davis CT, Brumm KT, Anis S, Chin J, Jiang K, **Pathak MM**, Liu WF. (2021). Crosstalk between CD11b and Piezo1 mediates macrophage responses to mechanical cues. *Frontiers in Immunology*, 12: 689397. doi: <https://doi.org/10.3389/fimmu.2021.689397>.
21. Atcha H, Jairaman A, Evans EL, **Pathak MM**, Cahalan MD, Liu WF. (2021). Ion channel mediated mechanotransduction in immune cells. *Current Opinion in Solid State and Materials Science*, 25(6), 100951. doi: <https://doi.org/10.1016/j.cossms.2021.100951>.
20. Jairaman A\*, Othy S\*, Dynes JL, Yeromin AV, Zavala A, Greenberg ML, Nourse JL, Holt JR, Cahalan SM, Parker I, **Pathak MM**, Cahalan MD. (2021). Piezo1 channels restrain regulatory T cell polarization but are dispensable for effector CD4+ T cell responses. *Science Advances*, 7(28). doi: <https://doi.org/10.1126/sciadv.abf4198>.
19. Atcha H, Jairaman A, Holt JR, Meli VS, Nagalla RR, Veerasubramanian PK, Brumm KT, Lim HE, Cahalan MD, **Pathak MM**, Liu WF. (2021). Mechanically-activated ion channel Piezo1 modulates macrophage polarization and stiffness sensing. *Nature Communications*, 12(1): 3256. doi: <https://doi.org/10.1038/s41467-021-23590-y>.
- Discussed in: Liu's Immune System Research to Benefit Wound Healing. UCI Samueli School of Engineering News. Available at: <https://engineering.uci.edu/news/2021/6/liu-s-immune-system-research-benefit-wound-healing>
18. Abuwarda H, **Pathak MM**. (2020). Mechanobiology of neural development. *Current Opinion in Cell Biology*, 66: 104-111. doi: <https://doi.org/10.1016/j.ceb.2020.05.012>. *Special issue on Cell Dynamics*.
- Invited review article
17. Ellefsen KL\*, Holt JR\*, Chang AC\*, Nourse JL\*, Arulmoli J, Mekhdjian AH, Abuwarda H, Tombola F, Flanagan LA, Dunn AR, Parker I, **Pathak MM**. (2019). Myosin-II mediated traction forces evoke localized Piezo1 Ca<sup>2+</sup> flickers. *Communications Biology*, 2, Article number: 298. doi: <https://doi.org/10.1038/s42003-019-0520-0>.
- Discussed in: Pulling in new directions: Myosin 2, Piezo, and metabolism by Quintanilla MA, Hammer JA, Beach JR. Available at: <https://f1000research.com/articles/8-1486>
  - Highlighted as an Editor's Pick article in the *Communications Biology* 5 Year Anniversary Collection
16. Zhao C, Sun Q, Cao Y, **Pathak MM**, Lu X, Yang Q. (2019). Mechanosensitive ion channel Piezo1 regulates adipose inflammation and systemic insulin resistance. *Frontiers in Endocrinology*, 10: 373. doi: <https://doi.org/10.3389/fendo.2019.00373>.
15. Nourse JL, **Pathak MM**. (2017). How cells channel their stress: Interplay between Piezo1 and the cytoskeleton. *Seminars in Cell and Developmental Biology*, 71: 3-12. doi: <https://doi.org/10.1016/j.semcdb.2017.08.044>.
- Invited review article
14. **Pathak MM**\*, Tran T\*, Hong L, Morris CE, Tombola F. (2016). The Hv1 proton channel responds to mechanical stimuli. *Journal of General Physiology*, 148(5): 405-418. doi: <https://doi.org/10.1085/jgp.201611621>.
- Recognized as the outstanding paper of the year by the Society of General Physiologists, through a Cranefield award to co-author, Francesco Tombola

13. Arulmoli J, Wright HJ, Phan D, Sheth U, Botten GA, **Pathak MM**, Zarembinski TI, Yanni DS, Razorenova OV, Hughes CCW, Flanagan LA. (2016). Combination scaffolds of salmon fibrin, hyaluronic acid, and laminin for human neural stem cell tissue engineering. *Acta Biomaterialia*, 43: 122-138. doi: <https://doi.org/10.1016/j.actbio.2016.06.009>.
12. Phan L\*, Kautz R\*, Arulmoli J, Kim I, Le DT, Shenk MA, **Pathak MM†**, Flanagan LA†, Tombola F†, Gorodetsky AA†. (2016). Reflectin as a material for neural stem cell growth. *ACS Applied Materials & Interfaces*, 8(1): 278-284. doi: <https://doi.org/10.1021/acsami.5b09359>.
11. Arulmoli J, **Pathak MM**, McDonnell LP, Nourse JL, Tombola F, Earthman JC, Flanagan LA. (2015). Static stretch affects neural stem cell differentiation in an extracellular matrix-dependent manner. \*
10. **Pathak MM†**, Nourse JL, Tran T, Hwe J, Arulmoli J, Le DTT, Bernardis E, Flanagan LA, Tombola F†. (2014). Stretch-activated ion channel Piezo1 directs lineage choice in human neural stem cells. *Proceedings of the National Academy of Sciences*, 111(45):16148-16153.
9. Kim IH, Hevezi P, Varga C, **Pathak MM**, Hong L, Ta D, Tran CT, Zlotnik A, Soltesz I, Tombola F. (2014). Evidence for functional diversity between the voltage-gated proton channel Hv1 and its closest related protein HVRP1. *PLoS One*, 9(8): e105926.
8. Nourse JL\*, Prieto JL\*, Dickson AR, Lu J, **Pathak MM**, Tombola F, Demetriou M, Lee AP, Flanagan LA. (2014). Membrane biophysics define neuron and astrocyte progenitors in the neural lineage. *Stem Cells*, 32(3): 706-716.
  - Featured Publication, Neural Cell News, September 18, 2013
7. Hong L, **Pathak MM**, Kim IH, Ta D, Tombola F. (2013). Voltage-sensing domain of voltage-gated proton channel Hv1 shares mechanism of block with pore domains. *Neuron*, 77(2): 274-287.
  - Commentary: Kalia & Schwartz (2013). Common principles of voltage-dependent gating for Hv and Kv channels. *Neuron*, 77(2): 214-216.
6. **Pathak MM\***, Yarov-Yarovoy V\*, Roux B, Agarwal G, Kohout S, Barth P, Tombola F, Isacoff EY. (2007). Closing in on the resting state of the Shaker K<sup>+</sup> channel. *Neuron*, 56(1): 124-140.
  - Selected as the “Featured article” on *Neuron* website
5. Tombola F, **Pathak MM**, Gorostiza P, Isacoff EY. (2007). The twisted ion-permeation pathway of a resting voltage-sensing domain. *Nature*, 445(7127): 546-549.
  - Faculty of 1000 recommendation, Exceptional (F1000 factor 3)
4. Tombola F, **Pathak MM**, Isacoff EY. (2006). How does voltage open an ion channel? *Annual Review of Cell and Developmental Biology*, 22: 23-52.
3. Tombola F, **Pathak MM**, Isacoff EY. (2005). How far will you go to sense voltage? *Neuron*, 48: 719-725.
2. Tombola F, **Pathak MM**, Isacoff EY. (2005). Voltage-sensing arginines in a potassium channel permeate and occlude cation-selective pores. *Neuron*, 45: 379-388.
1. **Pathak MM**, Kurtz L, Tombola F, Isacoff EY. (2005). The cooperative voltage sensor motion that gates a potassium channel. *Journal of General Physiology*, 125: 57-69.
  - Cover article

*Publication gap from 2008 to 2012 due to health problems that have since been resolved through medical and surgical treatment. Details available on request.*

## INVITED TALKS

### *Upcoming*

1. *Integrative Physiology Departmental Seminar at Baylor College of Medicine. Scheduled for 2024-2025*
2. *Columbia University, New York, NY. Scheduled for 2024-2025*

3. *Department of Molecular Physiology and Biophysics Seminar Series, University of Iowa. Scheduled for 2024-2025.*
4. *Department of Cellular Biology Seminar Series, University of Georgia, Athens, GA. Scheduled for 2024-25.*
5. *Yonsei-Institute for Basic Science (IBS) Forum for physical modalities for neuroscience, Seoul, South Korea. Scheduled for November 2021, postponed due to the Covid-19 pandemic.*
6. *NIH National Heart Lung and Blood Institute (NHLBI) Seminar Series, Bethesda, MA. Scheduled for April 2020, Postponed due to the COVID -19 pandemic.*

### **Completed**

#### **International, Conference**

7. International Society for Developmental Neuroscience (ISDN) 2024, 25<sup>th</sup> Biennial Meeting, Montpellier, France, September 2024.
8. Invited talk, RECI Spanish Ion Channel Network Meeting, Spain, December 2023.
9. Invited talk, International Society of Mechanobiology, Sydney, Australia. November 2022.
10. Invited talk, European Calcium Society Meeting, Cork, Ireland. August 2022.
11. Invited talk, 9th World Congress of Biomechanics (WCB 2022), Hybrid Meeting (in person and virtual), Taipei, Taiwan. July 2022.
12. Universidad Nacional Autonoma de Mexico, Queretaro, Mexico. September 2019.
13. Force-gated Ion Channels Conference at Max Delbruck Center, Berlin, Germany. October 2018.

#### **International, Seminars**

14. Department seminar, Physiology Department at McGill University, Montreal, Canada. May 2022.
15. Cell Migration Seminars, International online seminar series, April 2021. YouTube link available at <https://www.youtube.com/watch?v=TwKY51d21ZM&t=2262s>
16. Institute of Molecular and Cell Biology, Singapore. February 2016.
17. Mechanobiology Institute, Singapore. February 2016.
18. Tata Institute of Fundamental research (TIFR), Mumbai, India. October 2010.
19. National Centre for Biological Sciences, Bangalore, India, November 2006.
20. National Centre for Biological Sciences, Bangalore, India, September 2004.
21. St. Xavier's College, Ahmedabad, India, September 2004.

#### **National, Conference**

1. Biophysical Society 69<sup>th</sup> Annual Meeting, Los Angeles, CA. February 2025.
2. Gordon Research Conference, Ion Channels, South Hadley, MA. July 2024.
3. American Physiology Summit, Long Beach, CA. April 2024.
4. Biophysical Society 68<sup>th</sup> Annual Meeting, Philadelphia, PA. February 2024.
5. NIH High-Risk, High-Reward (HRHR) Research Symposium, NIH, Bethesda, MD. June 2023.
6. Invited talk, Biophysical Society Conference on Molecular Biophysics of Membranes, Lake Tahoe. June 2022.
7. Early Investigator Award talk, Mechanobiology Subgroup Symposium, Biophysical Society, February 2022
8. Virtual Workshop on “Mechanics in Physiological Systems: From Organelle to Organism”. Fifth in a series of ten workshops serving an important role in shaping a new 15-lab, 15-year research program at HHMI's Janelia Research Campus, called 4D Cellular Physiology. June 2021. YouTube link available at [https://youtu.be/rPm\\_Cvv7GpY?t=17363](https://youtu.be/rPm_Cvv7GpY?t=17363).
9. Invited Symposium talk, Annual meeting of the American Society for Biochemistry and Molecular Biology (ASBMB). April 2021.
10. Invited Symposium talk at Materials Research Society (MRS) Fall Meeting, Boston, MA. December 2019.
11. Didactic Workshop on Mechanobiology at Materials Research Society (MRS) Fall Meeting, Boston, MA. December 2019.
12. NIH NCCIH 20<sup>th</sup> Anniversary Symposium, NIH, Bethesda, MD. September 2019.
13. NIH workshop on “Neurocircuitry of Force-Based Manipulations”, NIH, Bethesda, MD. September 2019.
14. Annual Meeting of the Biophysical Society Meeting, Mechanobiology subgroup, Baltimore, MD. March 2019.
15. FASEB Ion Channel Regulation conference, Steamboat Springs, CO. July 2017.
16. FASEB Ion Channel Regulation conference, Big Sky, MO. July 2015.



17. Force-gated Ion Channels Meeting. HHMI Janelia Research Campus, Ashburn VA. March 2015.

### **National, Seminars**

18. Seminar Series, Biological Engineering, University of Santa Barbara, Santa Barbara, CA. April 2024.
19. Biological Physics / Physical Biology (BPPB) Seminar, Virtual, January 2024. YouTube link available at <https://www.youtube.com/watch?v=vgjQHF5DIzw>.
20. Ion Channel Modulation Symposium, UC Irvine, CA, October 2023. YouTube link available at <https://youtu.be/7gCx-6MFhwk?si=ycL7i-NHi9I-Vglf>.
21. NIH High Risk, High Reward (HRHR) seminar series, Virtual, January 2023.
22. Penn Institute for Regenerative Medicine (Penn IRM) Seminar Series, University of Pennsylvania, Philadelphia, PA. October 2022.
23. Bioengineering and Physiology Seminar Series, Mayo Clinic, Rochester, MN. May 2022.
24. Department seminar, Pharmacology & Regenerative Medicine at the University of Illinois College of Medicine, Chicago, IL. May 2021.
25. Bioengineering Department Colloquium Series, University of California, Riverside, March 2021.
26. Department seminar at Brandeis University's Biology and Neuro Seminar Series, Waltham, MA. Student invitation. February 2021.
27. Department of Biomedical Engineering seminar series, Purdue University, Lafayette, IN. November 2020.
28. Biological Physics seminar at Arizona State University, Tempe, AZ. October 2020.
29. Chemistry department Colloquium at Rutgers University, Piscataway, NJ. September 2020.
30. Ion Channels Supergroup Zoominar series, UT Austin, Austin, TX. May 2020.
31. Bridges to Stem Cell Research Annual Symposium, California State University, Fullerton, CA. March 2020.
32. Nature Conference on Engineering Biology for Medicine, Duke University, Raleigh, NC. May 2019.
33. Institute of Neuroscience, University of Tennessee Health Science Center, Memphis, TN. May 2019.
34. Western University Departmental Seminar Series, Pomona, CA. April 2019.
35. UCSD Quantitative Biology Seminar Series, San Diego, CA. February 2019.
36. Advanced Imaging Methods Workshop, UC Berkeley, Berkeley, CA. January 2019.
37. Department of Genetics, Cell Biology, and Development Seminar Series, University of Minnesota, Minneapolis, MN. September 2018.
38. NSF-funded seminar series for graduate students "Oh! The places you will go...with a PhD in science", Department of University of Tennessee, Knoxville, TN. April 2018.
39. Biomechanics and Mechanobiology seminars series, Dept. of Mechanical and Aerospace Engineering, University of California at San Diego, San Diego, CA. May 2017.
40. MechBio Symposium: Putting Together the Cell Mechanome. University of California at San Diego, San Diego, CA. August 2016.
41. Department of Cell & Molecular Physiology Seminar Series, Loyola University Medical School, Chicago, IL. May 2016.
42. Harold Lecar Memorial Symposium. UC Berkeley, CA. May 2014.

### **Local**

43. UCI School of Medicine Dean's Research Council, Irvine, CA. September 2022.
44. Annual Symposium of the UCI Stem Cell Research Center, UC Irvine, Irvine, CA. April 2021.
45. UCI Department of Developmental and Cell Biology Seminar Series, Irvine, CA. October 2019.
46. UCI Department of Biological Chemistry Seminar Series, Irvine, CA. May 2019.
47. UCI Campus-wide Cancer Symposium, UC Irvine, Irvine, CA. May 2019.
48. UCI 3<sup>rd</sup> Annual Joint Faculty Retreat, UCI School of Medicine and School of Biological Sciences, UC Irvine, Costa Mesa, CA. April 2018.
49. UCI Center for Complex Systems Biology Annual Retreat, Los Angeles, CA. March 2018.
50. UCI 2<sup>nd</sup> Annual Joint Faculty Retreat, UCI School of Medicine and School of Biological Sciences, UC Irvine, Silverado, CA. May 2017.
51. Center for Autism Research and Treatment Monthly Seminar Series, UC Irvine, CA. January 2015.
52. Sue & Bill Gross Stem Cell Research Center Seminar series, UC Irvine, CA. Spring 2014 Seminar Series. May 2014.

## PROFESSIONAL MEMBERSHIPS

Biophysical Society	2001 - Present
American Association for the Advancement of Science	2007 - Present
Harvard Women in Neuroscience	2007 - 2010
Association for Research in Otolaryngology	2007 - 2016
International Society for Stem Cell Research	2013 - Present
American Society for Cell Biology	2014 - Present
Biomedical Engineering Society	2014 - 2017

## TEACHING EXPERIENCE

<b>University of California, Irvine</b> - Irvine, California <b>Instructor</b> , <i>Medical Physiology and Anatomy</i> , PharmD Curriculum	2021 - Present
<b>University of California, Irvine</b> - Irvine, California <b>Instructor</b> , <i>Mathematics, Computational and Systems Biology Graduate program bootcamp</i>	2020 - Present
<b>University of California, Irvine</b> - Irvine, California <b>Guest lecturer</b> , <i>Cardiac Mechanobiology</i> , Biomedical Engineering Graduate Course	2019 - Present
<b>University of California, Irvine</b> - Irvine, California <b>Instructor</b> , <i>Topics in Physiology</i> , Physiology & Biophysics Graduate Course	2018
<b>University of California, Irvine</b> - Irvine, California <b>Instructor</b> , <i>Medical Physiology</i> , Medical Students Curriculum	2017 - Present
<b>University of California, Irvine</b> - Irvine, California <b>Instructor</b> , <i>Physiology of Ion Channels</i> Graduate Course	2012 - Present
<b>Marine Biological Laboratory</b> - Woods Hole, Massachusetts Teaching Assistant, <i>Biology of the Inner Ear</i> Summer Course	2009
<b>Harvard Medical School</b> - Boston, Massachusetts Teaching Assistant, <i>Neuroscience</i> course for Graduate and Medical students	2008
<b>University of California, Berkeley</b> - Berkeley, California Graduate Student Instructor, <i>Introduction to Neuroscience</i>	2003
Graduate Student Assistant, <i>Biophysical Neurobiology</i>	2001 - 2003
<b>National Centre for Biological Sciences</b> - Bangalore, India Teaching Assistant, <i>Basic Neurobiology</i>	1999
Teaching Assistant, <i>Hands-on Workshop on Emerging Trends in Neurophysiology</i>	1999

## TEACHING EXPERIENCE

### Postdoctoral Fellows

- Ignasi Casanellas 2022 - Present
  - Recipient of a CIRM Training grant fellowship
- Elizabeth Evans 2020 - 2023
  - Recipient of a CIRM Training grant fellowship

### Medical Students

- Truc Tran, Pennsylvania State University, Hershey, PA Summer 2017
- Dai Trang Thi Le, University of Central Florida Summer 2016
  - Recipient of a UCF research grant for work done in the lab

### Graduate Students, Thesis Mentor

- Laura Williamson, UCI MSTP Program (co-mentored with Dr. Lisa Flanagan) 2022 - Present
- Gabriella Bertaccini, UCI Cellular & Molecular Biosciences Graduate Student 2020 - 2025
  - UCI Stem Cell Translational Medicine NIH T32 training grant awardee 1/2024
  - 2023 Stanley Behrens Fellow in Medicine awardee
- Alan Ly, UCI Cellular & Molecular Biosciences Graduate Student 2019 - 2025
  - Recipient of an NIH Diversity Supplement
  - Recipient of an NIH F31 pre-doctoral fellowship
- Jesse Holt, UCI, Physiology & Biophysics 2017 - 2023
  - HHMI Gilliam Diversity Fellow
  - Eugene Cota Robles Diversity Fellow
  - Recipient of a \$10,000 opportunity award from the Center for Multiscale Cell Fate at UCI, for a collaborative project with Dr. Wei-Zheng Zeng (Dr. Ardem Patapoutian's lab) in The Scripps Research Institute.
  - Recipient of a \$2,500 travel award for a new collaborative project with Dr. Rizal Hariadi's lab at Arizona State University
  - Recipient of a \$10,000 opportunity award from the Center for Multiscale Cell Fate at UCI, for a collaborative project with Jinghao Chem (Dr. John Lowengrub's lab) at Dept. of Mathematics, UCI.
- Chang Zhao, UCI Masters in Biotechnology, Co-mentored with Francesco Tombola and Lisa Flanagan 2015 - 2016
- Rylan Katz, UCI, Chem. Eng. & Material Sci. (Primary Mentor: Alon Gorodetsky) 2014 - 2016
- Janahan Arulmoli, UCI, Biomedical Engineering (Primary Mentor: Lisa Flanagan) 2013 - 2016
- Iris Kim, UCI, Physiology & Biophysics (Primary Mentor: Francesco Tombola) 2011 - 2014

### Graduate Students, Rotation Mentor

- Joshua Alcantara, UCI Cellular & Molecular Biosciences Rotation Student Fall 2022
- Jazmine Moore, UCI Interdepartmental Neurosciences Rotation Student Winter 2022
- John Corrette, UCI Mathematical, Comp., & Systems Biology Rotation Student Spring 2021
- Cherie Lepe, UCI Interdepartmental Neurosciences Rotation Student Fall 2020
- Jacob Deyell, UCI Medical Scientist Training Program Graduate Student Summer 2020
- Mulatwa Haile, UCI Interdepartmental Neurosciences Rotation Student Winter 2020
- Isabel Rivera, UCI Interdepartmental Neurosciences Rotation Student Winter 2019
- Nihal Eltom, UCI Interdepartmental Neurosciences Rotation Student Fall 2018
- Chloe Saras Thangavelu, Cellular & Molecular Biosciences Rotation Student 2018
- Haley Masters, UCI, Cellular & Molecular Biosciences Rotation Student 2017
- David Au, UCI, Cellular & Molecular Biosciences Rotation Student 2017
- Graduate student mentor for 4 Ph.D. rotation students, UC Berkeley 2002 - 2006

### Graduate Students, Thesis/Advancement Committee

- Daniela Enriquez Ochoa, Advancement Committee, UCI Biomedical Engineering Student 2025
- Mariella Soto, Thesis Committee, UCI Cellular & Molecular Biosciences Student 2025
- David Zalazar, Advancement Committee, UCI Biomedical Engineering Student 2024
- Thuy-Khanh Tran-Dao, Thesis Committee, UCI Biomedical Engineering Student 2024
- Laura Williamson, Thesis Committee, UCI MSTP 2024
- Erika Jolova, Thesis Committee, UCI Cellular & Molecular Biosciences Student 2023

- Olamide Fategbe, Thesis Committee, UCI Cellular & Molecular Biosciences Student 2023
- Victor Yan, Thesis Committee, UCI Biomedical Engineering Student 2020

#### Post-baccalaureate Students

- Kianna Satari 2024 - Present
- Vivian Leung 2020 - Present
- Esmeralda Izqueirido, UC Riverside 2017 - 2018
- Nhu Nguyen, UCI 2015 - 2016
- Dai Trang Thi Le, UCI (currently medical student at University of Central Florida) 2014 - 2015
- Jennifer Hwe, UCI (currently post-bac. pre-medical student at Charles Drew Univ.) 2013 - 2015

#### Undergraduate Students

- Alicia Margaret Lin, UCI undergraduate research student 2023 - Present
- Eden Vold, UCI undergraduate research student 2022 - 2023
- Naomi Ferrer, UCI undergraduate research student 2022 - Present
- Michael Thanh-Phong Vu, UCI undergraduate research student 2021 - 2022
  - UCI Summer Undergraduate Research Program grant awardee (2021)
- Elaine Lai, CSU Fullerton undergraduate research student 2021
  - CIRM Bridges Scholar
- Kaitlyn Manh, CSU Fullerton undergraduate research student 2020
  - CIRM Bridges Scholar
- Shayan Fini, UCI undergraduate research student 2020 - 2021
  - UCI Summer Undergraduate Research Program grant awardee (2020)
- Abhishek Kulkarni, UCI undergraduate research student 2019 - 2020
- Samantha Smith, UCI undergraduate research student 2018 - 2020
  - UCI Undergraduate Research Opportunities Program grant awardee (2020)
  - UCI Undergraduate Research Opportunities Program grant awardee (2019)
- Harsh Bhavsar, UCI undergraduate research student 2018 - 2020
  - UCI Undergraduate Research Opportunities Program grant awardee (2020)
  - UCI Undergraduate Research Opportunities Program grant awardee (2019)
- Brian Nguyen, UCI undergraduate research student 2017 - 2018
- Ladelyn Boonlua, UCI undergraduate research student 2017 - 2018
  - UCI Undergraduate Research Opportunities Program grant awardee (2017)
- Nguyen Minh Truong, UCI undergraduate research student 2017 - 2018
  - UCI Undergraduate Research Opportunities Program grant awardee (2020)
  - UCI Undergraduate Research Opportunities Program grant awardee (2019)
  - UCI Undergraduate Research Opportunities Program grant awardee (2018)
- Huixun Du, UCI undergraduate research student 2017 - 2019
  - UCI Summer Undergraduate Research Program grant awardee (2018)
  - UCI Undergraduate Research Opportunities Program grant awardee (2018)
- Klara Zakery, UCI undergraduate research student 2017 - 2018
- Adrija Chakrabarty, UCLA undergraduate research student Summer 2017
- Juhi Gopal, UCI undergraduate research student 2016 - 2018
- Hamid Abuwarda, UCI undergraduate research student 2016 - 2018
  - Co-author on a research article

- o Robert Ernst Prize for Excellence in Research, Biological Sciences (2018)
  - o UCI Excellence in Research awardee (2018)
  - o UCI Summer Undergraduate Research Program grant awardee (2017)
  - o UCI Undergraduate Research Opportunities Program grant awardee (2017)
- Colleen Chau, UCI undergraduate research student 2015 - 2016
  - o UCI Summer Undergraduate Research Program grant awardee (2018)
  - o UCI Undergraduate Research Opportunities Program grant awardee (2016)
- Christina Le, UCI undergraduate research student 2014 - 2016
  - o UCI Undergraduate Research Opportunities Program grant awardee (2016)
  - o UCI Undergraduate Research Opportunities Program grant awardee (2015)
  - o UCI Summer Undergraduate Research Program grant awardee (2015)
- Julie Self, Bates College Summer 2015
- Truc Tran, UCI undergraduate research student 2011 - 2014
  - o Co-author on two research articles
  - o UCI Excellence in Research awardee (2012)
  - o UCI Undergraduate Research Opportunities Program grant awardee (2012)
  - o UCI Undergraduate Research Opportunities Program grant awardee (2013)
  - o UCI Summer Undergraduate Research Program grant awardee (2013)
- Chau Tran, UCI undergraduate research student 2013 - 2014
  - o Co-author on two research articles
- Heather Newman, UC Berkeley undergraduate research student 2004 - 2005
- Lisa Kurtz, UC Berkeley undergraduate research student 2001 - 2004
  - o Co-author on a research article

### High School Students

- Ria Bahadur, Eastside Preparatory, Seattle, WA 2021 - 2022
- Kianna Maria Dominick, Sage Hill High School, Newport Coast, CA 2019 - 2020
- Tia Desarkar, Beckman High School, Tustin, CA 2019 - 2020
- Ally Mendelhall, Tesoro High School, Las Flores, CA Summer 2017
- Adam Clements, El Toro High School, Lake Forest, CA 2016 - 2017
- Jessica Parpana, Tesoro High School, Las Flores, CA Summer 2016
- Namita Prakash, Sage Hill School, Newport Coast, CA 2015 - 2016
- Adrija Chakrabarty, Troy High School, Fullerton, CA Summer 2015
- Zac Morton, Tesoro High School, Las Flores, CA 2014 - 2015

### PROFESSIONAL ACTIVITIES

**Manuscript reviewer:** ACS Nano, Advanced Science, Biophysical Journal, Cell, eLife, F1000 Reviews, Frontiers in Cell and Developmental Biology, Frontiers in Pharmacology of Ion Channels and Channelopathies, Journal of Biological Chemistry, Journal of General Physiology, Journal of Neuroinflammation, Journal of Neuroscience, Nature Communications, PLOS One, Proceedings of the National Academy of Sciences (PNAS), Review Commons, Scientific Reports.

**Ad hoc grant reviewer:**

- NIH ForceNET Pilot Grants 2025
- Deutsche Forschungsgemeinschaft* (German Research Foundation) 2023 - 2024
- United Kingdom Research & Innovation, Biotech. & Bio. Sciences Research Council 2018, 2023, 2024

Chan Zuckerberg Institute, reviewer for Dynamic Imaging grants program	9/2022
NCCIH, NIH, Neural Mechanisms of Force-Based Manipulations: High Priority Research Networks (U24), Special emphasis review panel	10/2021
Intercellular Interactions (ICI) NIH study section, National Institutes of Health	6/2021
HHMI Gilliam Fellowship for Advanced Study, Howard Hughes Medical Institute	2/2021
Intercellular Interactions (ICI) NIH study section, National Institutes of Health	2/2021
NIH-funded Center of Biomedical Research Excellence (COBRE) Pilot Proposal for the University of Delaware	11/2020
NSF Directorate of Engineering grant review panel	7/2020
United Kingdom Research & Innovation, Biotech. & Biological Sciences Research Council	3/2020 2018
Neurotransporters, Receptors, Channels & Calcium Signaling (NTRC) study section, NIH Human Frontier Science Program	2017
<b><i>Session chair</i></b>	
Annual Symposium of the UCI Stem Cell Research Center, UC Irvine, Irvine, CA	4/2021
Materials Research Society Fall Meeting, Boston, MA.	12/2019
<b><i>Panelist</i></b>	
Panel discussion, "Achieving Work-Life Balance Across Different Job Sectors," Annual Meeting of the Biophysical Society	2/2023
Panel discussion, "Navigating your first year as PI". Intersections Science Fellows Program	11/2021 05/2019
Nature Conference Panel Discussion on How to Design a Scientific Project: Hypothesis Generation, Study Design, and How to Deal with Potential Failure	2014 - 2016
Organized workshops at Biophysical Society Meetings: "Setting up your lab as an Assistant Professor" (2016); "Grant Opportunities for Early Career Faculty" (2015); "Moving on from your Postdoc Position: Negotiating the Transition" (2014)	2015
Grant-writing workshop organized by the UCI Postdoc Association	2004
Careers in Bioscience and Biotechnology Workshops: St. Xavier's School, Ahmedabad, India; L.A.D College of Women, Nagpur, India	
<b><i>Poster judge</i></b>	
International Society for Mechanobiology Conference, Sydney, Australia	
Biophysical Society conference on Molecular Biophysics of Membranes, Lake Tahoe.	06/2022
American Society Cell Biology Annual Meeting, Philadelphia, PA	2014
<b><i>Founding Member and Secretary (Elected), International Society for Mast Cell Activation Syndromes</i></b>	2025
<b><i>Participant, Retreat for Founding of International Society for Mast Cell Activation Syndromes</i></b> , Bolinas, CA	2025
<b><i>Conference Organizer, ForceNET</i></b>	2025
CONVERGE 2025: Connecting Manual Therapy with Mechanistic Insights, Virtual	

<b>Member of ForceNET discussion group</b> ForceNET Intellectual Summit, Duke University, Durham, NC.	2024
<b>Member of ForceNET working group</b> Terminology for Force-Based Manipulations, an NIH-funded effort	2024 - Present
<b>Executive Committee Member for ForceNET</b> NIH U24 research network with the mission to bridge the knowledge gap between research in force-based mechanisms and outcomes relevant to patients and their clinicians.	2024 - Present
<b>Elected Council Member, Society of General Physiologist</b>	2024 - Present
<b>Selection Committee for SGP Scholars@MBL</b> Society of General Physiologists and Marine Biological Laboratory, Woods Hole, MA.	5/2024
<b>Organizer, member organized session, Annual Meeting of the Biophysical Society</b> Co-organized a platform session on Mechanosensitive Membrane Proteins at the Annual Meeting of the Biophysical Society.	2/2023
<b>Biophysics Colab, Founding Member</b> Biophysics Colab is a collaboration of biophysicists who are working in partnership with eLife to improve the way in which original research is evaluated.	2021 - Present
<b>Treasurer, Mechanobiology subgroup of the Biophysical Society</b> Managed the budget and fundraising for the subgroup, co-organized and co-chaired the 2023 subgroup symposium.	2021 - 2023
<b>bioRxiv Academic Affiliate</b>	2019 - Present
<b>Editorial Advisory Board Member, Journal of General Physiology</b>	2019 - 2021
<b>Conference chair</b> The Mechanome in Action, July 26-27 2018, UC Irvine.	2018
<b>Member</b> Early Careers Committee of the Biophysical Society	2013 - 2019
<b>Abstract Reviewer</b> Biomedical Engineering Society Annual Meeting, Tampa, Florida	2015
<b>Ad hoc consultant</b> Global Biological Standards Institute	2015
<b>Workshop Organizer</b> “Biosciences in India: Directions, Challenges and Opportunities” An Early Careers Committee Workshop at the Biophysical Society Meeting. San Francisco, California	2010
“Wanted by India: A discussion meeting on academic career options in the Biosciences”, UCSF, San Francisco, California	2009
<b>Executive Committee &amp; Admissions Committee Member</b> Berkeley Biophysics Group	2001 - 2002

## MEDIA COVERAGE

Surprising discovery by UCI-led team links Piezo1 and cholesterol during brain development <a href="https://www.eurekalert.org/news-releases/964041">https://www.eurekalert.org/news-releases/964041</a>	9/7/2022
UCI researchers reveal critical role of mechanosensor in skin wound healing <a href="https://www.eurekalert.org/news-releases/934356">https://www.eurekalert.org/news-releases/934356</a>	11/9/2021

New PI Slack, PI of the Month <a href="https://newpislack.wordpress.com/2019/01/13/medha-pathak-ph-d/">https://newpislack.wordpress.com/2019/01/13/medha-pathak-ph-d/</a>	1/15/2019
Interview: Neuroscientist Medha Pathak and the “Mechanome in Action” <a href="https://oscillations.net/2018/11/16/neuroscientist-medha-pathak-and-the-mechanome-in-action/">https://oscillations.net/2018/11/16/neuroscientist-medha-pathak-and-the-mechanome-in-action/</a>	11/16/2018
UCI researcher awarded NIH Director's New Innovator Award	10/2/2018

## INSTITUTIONAL SERVICE

### *Service to UCI School of Medicine*

<b>Member</b> , Space Resource Allocation Advisory Committee (SRAAC)	2025 - 2028
<b>Member</b> , Committee on Mentoring	2025 - 2028

### *Service to the Department*

#### **Faculty Recruitment Committees**

Co-Chair, Tissue Engineering search committee, FHLRE Initiative with SCRC	2022 - 2023
Member, Tissue Engineering search committee, FHLRE Initiative with SCRC	2018 - 2020
Professor-in-Residence faculty position	2018 - 2019
Vision Cluster, SOM Cluster Hiring Initiative	2017 - 2018
Neurodevelopment Cluster, SOM Cluster Hiring Initiative	2016 - 2018
<b>SOM Research Computing Committee</b> , Department representative	2007
<b>Co-ordinated talks, workshops panel discussions</b>	2016 - Present

- Writing workshop for grad students and postdocs
- Panel discussion on how to communicate with your local elected official on science policy
- Department research seminars

### *Service to the Sue Bill Gross Stem Cell Research Center*

<b>Director</b> , Stem Cell Research Center Tissue Engineering Core	2024
<b>Reviewer</b> , T32 NINDS Training Grant fellowships	2023-24
<b>Reviewer</b> , CIRM Training Grant fellowships	2023-24
<b>Co-Chair</b> , Tissue Engineering search committee, FHLRE Initiative with Physiology	2022 - 2023
<b>Shared Resource Committee Member</b>	2018 - Present
<b>Host for speakers in the SCRC seminar series</b>	2017 - Present
<b>Participation in writing training grants and equipment grants</b>	2021 - Present
<b>Faculty Recruitment Committee</b> , Tissue Engineering, FHLRE Cluster Hiring Initiative	2018 - 2020
<b>CRISPR Core Committee Member</b> for hiring Core facility manager	2018
<b>Event coordinator</b> , Panel Discussion on How to Communicate With Your Local Congressperson (joint event with the Department of Physiology)	2017
<b>Search committee member</b> for hiring core facility manager	2017
<b>Poster Judge</b> , Stem Cell Awareness Day Symposium	2016
<b>Faculty Recruitment Initiative</b> , contributed to writing the proposal for the Faculty Hiring for Leveraged Research Excellence proposal	2016

### *Service to Graduate Programs*

<b>Medical Scientist Training Program (MSTP) Admissions Committee</b> , Interviewer	2022 - 2023
<b>Cellular and Molecular Biology Graduate Program</b> , Co-chair, Prelim. Exam Committee	
<b>Cellular and Molecular Biology Graduate Program</b> , Faculty Interviewer	2019



<b>Center for Complex Biological Sciences</b> , Panelist, Applying for Fellowships and Grants	2019
<b>Medical Scientist Training Program (MSTP) Admissions Committee</b> , Member	2018 - 2019
<b>Behrens Graduate Fellowship Interview Committee Member</b>	2018
<b>Cellular and Molecular Biology Graduate Program</b> , Prelim exam Committee Member	2018
<b>Cellular and Molecular Biology Graduate Program</b> , Faculty Interviewer	2017
<b>Inter-departmental Neuroscience Program</b> , Faculty Interviewer	2017
<b>Cellular and Molecular Biology Graduate Program</b> , Prelim exam Committee Member	2017
<b>Cellular and Molecular Biology Graduate Program</b> , Admissions Committee Member	2016 - 2017

#### DIVERSITY AND OUTREACH ACTIVITIES

<b>Improv to Improve Your Science</b> , 6-part HHMI-funded workshop for graduate students	2021 - 2022
<b>Lead faculty contact for UCI at the <i>Intersections Science Fellows Symposium</i></b> , symposium to showcase the research of outstanding postdocs on the faculty job market who have significantly contributed to promoting Diversity, Equity and Inclusion within academia and/or are members of groups historically underrepresented in academia	2021, 2022
<b>UCI School of Medicine Graduate Academic Community Forum on Anti-BIPOC Racism</b> , Breakout Room Discussion Leader for “Mentorship by Faculty”	7/2020
<b>Demystifying the Hidden Curriculum</b> , organized HHMI-funded workshops to support diversity at graduate level:	
Academic Calendaring	9/2020
Navigating Your Writing Path	8/2020
Project Management: Hunks, Chunks & Bites, Parts I and II	7/2020
Strategies & Mindsets to Protect Your Time, Energy & Attention	4/2020
<b>Overcoming Imposter Syndrome</b> , workshops to support diversity at graduate level	2/2020

#### PROFESSIONAL DEVELOPMENT TRAINING

<b>UCI School of Medicine Dean’s Women’s Leadership Academy</b>	2021 - 2022
<b>HHMI Gilliam Mentorship Skills Development Training Workshop, Part II</b>	9/23/2021 - 9/24/2021
<b>HHMI Gilliam Mentorship Skills Development Training Workshop, Part I</b>	4/1/2021 - 4/2/2021
<b>HHMI Inclusive Learning Series, Harvard Business School</b>	11/5/2020 - 2/18/2021
<b>iCAM: Introduction to Culturally Aware Mentorship</b> , HHMI Gilliam Mentor training and the University of Wisconsin-Madison	03/2021
<b>HHMI Gilliam Mentorship Training</b> , Howard Hughes Medical Institute and the University of Wisconsin’s Center for the Improvement of Mentored Experiences in Research (CIMER)	10/1/2019 - 3/31/2021
<b>EMBO Laboratory Leadership Course for Group Leaders</b> , Stowers Institute, Kansas City, MO.	4/8/2019 - 4/13/2019
<b>AAMC Early Career Women Faculty Leadership Development Seminar</b> , San Diego, CA.	2/2/2019 - 2/5/2019
<b>Faculty Success Program, National Center for Faculty Development &amp; Diversity</b> , Online.	8/26/2018 - 11/17/2019

<b>Optical Microscopy and Imaging in the Biological Sciences</b> , Marine Biological Laboratory, Woods Hole, MA.	9/7/2016 - 9/17/2016
<b>Young Investigator meeting</b> , Poovar, Kerala, India.	2/24/2009 - 2/28/2009
<b>Biology of the Inner Ear – Experimental and Analytical Approaches</b> , Marine Biological Laboratory, Woods Hole, MA.	8/19/2007 - 9/1/2007