

VIDHYA RANGARAJU, PhD

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[Lab Webpage](#)

CURRENT POSITIONS

Research Group Leader From 01/2020
Max Planck Florida Institute for Neuroscience (MPFI), Florida, USA

Affiliate Faculty From 10/2020
Charles E. Schmidt College of Science, Florida Atlantic University (FAU), Florida, USA

MATERNITY BREAKS

07/2020, 02/2023, 10/2025

EDUCATION AND TRAINING

Postdoctoral Fellow, Erin Schuman Lab 02/2014 – 12/2019
Max Planck Institute for Brain Research (MPIBR), Germany

Ph.D. Tri-Institutional Ph.D. Program in Chemical Biology (TPCB), Timothy Ryan Lab 07/2008 – 01/2014
Weill Cornell Medicine (WCM), New York
Cornell University, Ithaca, USA 07/2007 – 06/2008

B.Tech. Bachelor of Technology, Industrial Biotechnology
Anna University, India 07/2002 – 05/2006

GRANTS, FELLOWSHIPS, HONORS, AND AWARDS

McKnight Scholars Program Finalist 05/2025
Chan Zuckerberg Neuroscience Collaboration Supplement 12/2024 – 12/2025
NIH Director's New Innovator Award (DP2) 09/2024 – 08/2029
Society for Neuroscience Janett Rosenberg Trubatch Career Development Award 09/2024
CZI Ben Barres Early Career Acceleration Award 12/2023 – 11/2027
HHMI Freeman Hrabowski Scholars Program Finalist 03/2023
F.O.R.E Foundation Grant 07/2022– 12/2024
Louis D. Strybnik Foundation Grant 07/2021– 12/2024
Society for Neuroscience Peter and Patricia Gruber International Research Award 10/2020
Scientific discovery of the year, MPIBR 12/2019
GRADE Brain travel grant 09/2019
MacGillavry Fellowship, University of Amsterdam (declined) 04/2019
Lindau Nobel Laureate Meeting Award 06/2018
GlaxoSmithKline Stiftung travel grant 09/2015
EMBO Workshop travel grant 09/2015
Humboldt Research Fellowship for Postdoctoral Researchers (declined) 03/2015
Marie Curie Actions Individual Fellowship 01/2016 – 12/2017
EMBO Long-Term Postdoctoral Fellowship 01/2015 – 12/2015
Vincent du Vigneaud Award of Excellence, Vincent du Vigneaud symposium, WCM 04/2012
Best Poster Prize, Chemical Biology Student Symposium, Cornell University, USA 11/2007
Tri-Institutional Ph.D. Program in Chemical Biology Fellowship, WCM, USA 07/2007 – 05/2012
Junior Research Fellowship, National Centre for Biological Sciences, India 06/2006 – 06/2007
CSIR Program for Youth on Leadership in Science fellowship, CSIR, India 06/2001 – 06/2004
Chennai District Topper, State Board Examination, India 06/2000

ACTIVE FUNDING

Chan Zuckerberg Neuroscience Collaboration Supplement 12/2024 – 12/2025
NIH Director's New Innovator Award (DP2 MH140148) 09/2024 – 08/2029
Carl Angus DeSantis Award 07/2024 – 12/2027
Chan Zuckerberg Initiative Ben Barres Early Career Award 12/2023 – 11/2027
Strybnik and F.O.R.E. Foundation Grant 07/2021 – 12/2025
MPFI Annual General Operating Budget 01/2020 – present

INVITED SCIENTIFIC TALKS AND CONFERENCES

Vanderbilt University – MPFI Symposium, Jupiter, USA	08/2025
Simons Collaborations on Brain Energetics Discussion Series, USA	05/2025
MITOTalks Seminar Series, USA and Europe	05/2025
Rutgers Robert Wood Johnson Medical School, Dept. of Neuroscience and Cell Bio., NJ, USA	03/2021, 05/2025
American Physiology Summit, Do we know how neurons work? Baltimore, USA	04/2025
Johns Hopkins University, Department of Cell Biology, Baltimore, USA	04/2025
Gordon Research Conference, Dendritic Mechanisms, Lucca, Italy, Ventura, USA	03/2017, 03/2025
Univ. of Texas Health McGovern Medical School, Dept. of Neurobiology and Anatomy, Houston, USA	01/2025
University of Miami Miller School of Medicine, Neuroscience Center Seminar Series, Miami, USA	12/2024
Max Planck Neuro Retreat, Frankfurt, Germany & Jupiter, USA	10/2022, 10/2024
Max Planck Biomedical Section Symposium, Harnack Haus, Berlin, Germany	10/2024
International Conference on Brain Energy Metabolism, Ljubljana, Slovenia	09/2024
Stony Brook University, Department of Neurobiology and Behavior, Stony Brook, USA	08/2024
Memorial Sloan Kettering Cancer Center, Mol. Pharm. & Chem. Bio. Seminar Series, New York, USA	08/2024
CZI Neuroscience 2024 Meeting, Monterey, USA	07/2024
EMBO Workshop, Principles of Dendritic Function and Computation, Chania, Greece	05/2024
CZI Neuroscience Program Kick Off, Redwood City, USA	03/2024
Advanced Neuroimaging Techniques, MPFI, Jupiter, USA	02/2024
CZI Neuroscience Early Career Acceleration Retreat, Redwood City, USA	02/2024
Friday Afternoon Reese Seminar Series, NIH, Maryland, USA	01/2024
Scientific Advisory Board Meeting, MPFI, Jupiter, USA	09/2021, 01/2024
CZI Ben Barres Early Career Acceleration Award Selection Symposium, Redwood City, USA	08/2023
Cytoskeleton of Neurons and Glia webinar, NIH, Maryland, USA	04/2023
HHMI Freeman Hrabowski Scholars Program Selection Symposium, Chevy Chase, USA	02/2023
Gordon Research Conference, Cell Biology of the Neuron, Waterville Valley, USA	06/2012, 06/2016, 06/2022
Indiana University, Gill Center for Biomolecular Science, Bloomington, USA	04/2022
Weill Cornell Medicine, Department of Psychiatry, New York, USA	05/2021
NeuroNex2, National Science Foundation Grant, Mitochondria Series Workshops, USA	02/2021
Johns Hopkins University, Department of Biological Chemistry, Baltimore, USA	12/2020
Dartmouth College, Department of Biological Sciences, Hanover, USA	11/2020
University of Colorado Boulder, Department of Biochemistry, Boulder, USA	11/2020
Johns Hopkins University, Watanabe Lab, Baltimore, USA	05/2020
Scripps Research, SYNAPSE 2020, Tri-Institutional Neuroscience Retreat, Jupiter, USA	01/2020
Society for Neuroscience, Chicago, Washington D.C., USA	10/2011, 11/2019
Bordeaux Neurocampus – Universite de Bordeaux, Bordeaux, France	07/2019
Institut Pasteur, Paris, France	06/2019
Max Planck Florida Institute for Neuroscience, Jupiter, USA	06/2019
Cell dynamics: Organelle-Cytoskeleton Interface, Lisbon, Portugal	05/2019
Universiteit van Amsterdam, Amsterdam, Netherlands	03/2019
University of Arizona, Department of Molecular and Cellular Biology, Tucson, USA	02/2019
Columbia University, Zuckerman Institute, New York, USA	02/2019
St. Jude Children's Research Hospital, Department of Developmental Neurobiology, USA	02/2019
Max Planck Research Group Leader Selection Symposium, Berlin, Germany	02/2019
The Francis Crick Institute, London, UK	02/2019
MRC Laboratory of Molecular Biology, Cambridge, UK	01/2019
University of Texas Southwestern Medical Center, Dept. of Neuroscience, Dallas, USA	12/2018
Max Planck Institute for Brain Research retreat, Frankfurt, Germany	09/2015, 09/2018
University of Lausanne, Dept. of Fundamental Neuroscience, Lausanne, Switzerland	06/2018
Young Investigators' Colloquium, Frankfurt, Germany	01/2018
EMBO Fellows' meeting, European Molecular Biology Laboratory, Heidelberg, Germany	06/2017
Gordon Research Conference, Dendrites: Molecules, Structure & Function, Lucca, Italy	03/2017
EMBO Workshop, Mitochondrial DNA and Neurodegeneration, Sitges, Spain	09/2015
EMBO Conference, RNA localization and local translation, Crete, Greece	06/2015
Daimler und Benz Stiftung, Ladenburg, Germany	01/2015
University of Cambridge, Dept. of Physiology, Development and Neuroscience, UK	10/2014
Genentech, Department of Neuroscience, South San Francisco, USA	08/2013
Max Planck Institute for Brain Research, Frankfurt, Germany	07/2013

Massachusetts Institute of Technology, Department of Chemistry, Boston, USA	12/2012
Keck Biomembrane retreat, Cornell University, Ithaca, USA	05/2012
Vesicle Trafficking Club, Weill Cornell Medicine, New York, USA	05/2013, 05/2011
Annual Vincent du Vigneaud Research Symposium, Weill Cornell Medicine, NY, USA	04/2012, 04/2011
Tri-Institutional PhD Program in Chemical Biology Retreat, Pennsylvania, USA	07/2011, 08/2010

GRANTS REVIEWED

Human Frontier Science Program (HFSP) Postdoctoral Fellowships, France	10/2025
Motor Neurone Disease Association, UK	09/2025
NIH, F03A Study Section, Center for Scientific Review, USA	From 01/2025
The Minerva Foundation GmbH, Germany	09/2024
NIH Early Career Reviewer, NDPR Study Section, Center for Scientific Review, USA	From 12/2023
Israeli Ministry of Innovation, Science, and Technology, Israel	08/2022, 09/2023
Israel Science Foundation, Isreal	01/2023
Human Frontier Science Program (HFSP) Research Grants, France	10/2022
Chan Zuckerberg Initiative Collaborative Pairs Program, USA	04/2022

PEER-REVIEWED SCIENTIFIC JOURNALS

From 2010

Science, PNAS, Nature Biotechnology, Nature Neuroscience, Nature Communications, Nature Microbiology, Cell Reports, EMBO Reports, Current Opinion in Cell Biology, Cell Calcium, iScience, Frontiers in Cell and Developmental Biology, PLOS Biology, Seminars in Cell and Developmental Biology, BMC Biology, Neurophotonics, Journal of Cellular Physiology, Biochemical Society transactions, Histology and Histopathology.

TEACHING EXPERIENCE

Advanced Neuroimaging Techniques, MPFI imaging course, USA	02/2024
Neuroscience Lecturer, IMPRS graduate program, MPIBR, Germany	11/2016 – 10/2017
Chemistry and Physics Tutor, International General Certificate of Secondary Education	04/2016 – 06/2017
Teaching Assistant, Max Planck Institute for Brain Research Teaching Lab, MPIBR, Germany	05/2014
Chemistry for Kids, WCM, USA	04/2013 – 05/2013

MENTORING EXPERIENCE (within brackets are current positions of alum)

MPFI, USA	From 01/2020
Postdoctoral Fellows – Nitheyaa Shree, Nimmy Varghese, Debalina Acharyya, Ilika Ghosh, Ruolin Fan, Sen Yang (Postdoc at Brown U)	
Staff Scientist – Ruolin Fan	
Ph.D. students – Ojasee Bapat, Monil Shah	
Rotation students – Suhas Sunke (PhD at MPFI), Aidan McDonald (PhD at FAU)	
Master's student – Rasya Bhat	
Postbaccalaureates – Riya Sivakumar (PhD at Harvard), Danyu Luo (PhD at Northwestern), Ojasee Bapat (PhD at MPFI), Jacob LaMar (MS at FAU)	
Research technicians – Juan Patarroyo, Devahuti Bhuyan (PhD at U Alabama), Sabrina Perez (Northrop Grumman), Shaun Foutch (MS at MPFI)	
Undergraduates – Jean-Manuel Mena (BS at Cornell), Tejas Purimetla (MD at Dartmouth), Nicholas Moy (BS at FAU), Neha Anand (BE at IIT), Mohan Peddada (BS at Johns Hopkins), Kevin Pena	
High school students – Luca Pishos (BE at U Florida), Gayatri Sathyanarayan (BE at Cornell), Jake Zur (BE at U Michigan)	
Visiting Scientists – Sen Yang (Postdoc at Brown U), Jenna Wingfield (Postdoc at UF Scripps), Ken Kunugitani (MD PhD at Kyoto University)	
Schuman lab, Department of Synaptic plasticity, MPIBR, Germany	02/2015 – 12/2019
Master's students – Sarah Kruessel (Postdoc at U Heidelberg), Ana Alupe (Fintiba GmbH)	
Research Technician – Christina Thum (Tech. at MPIBR)	
High school students – Anna Sawyer, Rauf Gunsay, Johanna Möller (MS at Heidelberg U), Jessica Patzelt, Shreya Srinivasa, Rebeca Tenney	

Ryan lab, Department of Biochemistry, WCM, USA	01/2011 – 12/2013
Postdoctoral Fellows – PingYue Pan (PI at Rutgers U), Jaime de Juan-Sanz (PI at Paris Brain Institute)	
Ph.D. student – Kate Gao (Pi Health)	

MENTEE AWARDS AND HONORS

Minisymposia Speaker, Travel Grant Awardee, Elevator Pitch Awardee, ASCB 2025 – Ilika Ghosh	12/2025
Poster Presenter, CZI Imaging the Future – Monil Shah	09/2025
Invited Speaker, ThermoFisher Beyond the Beam Seminar Ser. on Electron Tomography – Monil Shah	10/2024
Selected Speaker, Japan-MPFI Multi-D Analysis of Memory Mechanisms Retreat – Monil Shah	09/2024
Janelia Visiting Scientists, Lippincott-Schwarz Lab – Ojasee Bapat and Monil Shah	09/2024
Carl Angus DeSantis Award – Ilika Ghosh	07/2024 – 12/2027
Selected for EMBO Intensive Course in Electron Microscopy for Cell Biology – Monil Shah	06/2024
Invited Speaker, CHINTA, TCG Crest – Ilika Ghosh	05/2024
Teaching Assistants, MPFI imaging course – Ilika Ghosh, Monil Shah	02/2024
Best Poster Award, MPFI retreat – Monil Shah	10/2023
Invited Speaker & Best Oral Presentation Award, UF Scripps Research Fest – Ilika Ghosh	05/2023
Travel Grant, NeuroNex Workshop – Monil Shah	05/2023
Best Poster Award, Zeiss Imaging Applications for Neuroscience Summit – Monil Shah	05/2023
Invited Speaker & Best Question Award, Florida Consortium on the Neurobio. of Cognition – Ruolin Fan	05/2023
Outstanding OWL Award and Outstanding Thesis Award – Tejas Purimetla	05/2023
Society for Neuroscience Trainee Professional Development Award – Ilika Ghosh	11/2022
Society for Neuroscience Invited Nanosymposium Speaker – Ilika Ghosh	11/2022
Nambu Memorial Summer Research Experience Program – Tejas Purimetla	05/2022 – 08/2022

THESIS COMMITTEE MEMBER/EXAMINER

Michael Maibach, Lohmann Lab, Netherlands Institute for Neuroscience, Netherlands	From 01/2025
Brittni R Walker, Moraes Lab, University of Miami Miller School of Medicine, USA	07/2024 – 08/2024
Yiwei Hua, Tian Lab, MPFI, USA	From 04/2024
Carlos C. Ramos, Moraes Lab, Universidade de Lisboa, Portugal	01/2024 – 04/2024
Yibo Zhao (cosponsor on her F31), Puthanveetil Lab, UF Scripps, USA	From 07/2023

RECRUITMENT

Okinawa Science and Technology, Faculty Candidate Review, Okinawa, Japan	02/2025 – 03/2025
UF Scripps Neuroscience Faculty Recruitment Committee, Florida, USA	06/2022 – 2023
International Max Planck Research School (IMPRS) – MPFI graduate program	From 02/2020
International Max Planck Research School (IMPRS) – MPIBR graduate program	02/2018
Princeton Graduate and Professional School Fair, Princeton, USA	10/2011
Annual Biomedical Research Conference for Minority Students, North Carolina, USA	11/2010

INVITED PANELS AND WORKSHOPS

iJOBS career seminar speaker, Rutgers Robert Wood Johnson Medical School, USA	05/2025
Celebration of Women in Neuroscience, Society for Neuroscience, USA	10/2024
Session Chair, Organelle Biology and Metabolism, CZI Neuroscience 2024 Meeting, USA	07/2024
Panel Member, Future of Dendritic Research, EMBO Workshop, Greece	05/2024
Alum speaker and panelist, TPCB retreat, USA	09/2023
Work-Life Balance Panel Member, Network for Women in Science, MPFI, USA	04/2022
Neuroscience Career Skills Panel Member, Johns Hopkins School of Medicine, USA	02/2022
Research Career Panel Member, MPFI Postbaccalaureate Program, USA	02/2021
External Advisory Committee Member, NeuroNex2, National Science Foundation grant, USA	From 01/2021

ORGANIZATION OF MEETINGS

Max Planck NeuroMEETS – Neuroscience Meetings for Extramural Emerging Talents, MPFI, USA	From 06/2022
Max Planck Career Day, MPIBR, Germany	06/2019
Trafficking Club, Department of Biochemistry, WCM, USA	08/2011 – 05/2012

SERVICE

External Advisory Editorial Board Member, EMBO Reports, Germany	From 06/2025
IACUC Scientific Member, MPFI, USA	11/2023 – 01/2025
Selection Committee Member, Peter Gruss Young Investigator Award, MPFI, USA	From 05/2022
Founder and Selection Committee Member, Max Planck NeuroMEETS, MPFI, USA	From 06/2022
Founder and Postdoctoral Association Representative, MPIBR, Germany	10/2017 – 06/2019
Academic team member, DNO, German Neuroscience Competition, Germany	09/2016 – 04/2018

Vice President, Weill Cornell Consulting Club, Weill Cornell Medical College, USA	01/2012 – 07/2012
Student Buddy, Expanding Your Horizons, Cornell University, Ithaca, USA	04/2008

SCIENCE OUTREACH

South Florida PBS (Public Broadcasting Service) Feature on 'Resilience of the Brain', USA	12/2025
FAU Media Relations, Rangaraju Lab IMPRS graduate students, MPFI, USA	07/2025
Music and Mind with opera legend Renée Fleming, Panel Member, Kravis Center, USA	01/2025
Science Meets Music, Public Speaker, The Benjamin School, USA	02/2024
Board of Trustees Meeting Public speaker, MPFI, USA	05/2023
MPFI Institute Breakfast Public Speaker, USA	12/2022
Science Career Day, Rangaraju Lab, MPFI, USA	09/2022
Brain Exploration Day, Rangaraju Lab, MPFI, USA	08/2022
Brain Bee Winners – day at the Rangaraju Lab, MPFI, USA	06/2022
Board of Trustees Meeting Public speaker, MPIBR, Germany	12/2019
Neuroscience Study Guide Author/Editor, DNO-German Neuroscience Competition	09/2016 – 04/2018
Night of Science Public speaker, Goethe University, Germany	06/2018
'Bar of Science' Public speaker, MPIBR, Germany	05/2017
Neuroscience Graduates' Colloquium speaker, Mainz, Germany	05/2017
Ivy Circle and Cornell Alumni Club, Host and Public Speaker, Frankfurt, Germany	04/2015, 04/2016
Cornell Student Outreach, WCM, USA	03/2012

ADDITIONAL TRAINING

Institutional Animal Care and Use Committee (IACUC) online training, MPFI, USA	02/2020
EMBO Training Course on Negotiation for Scientists, Germany	10/2019
Optical Imaging and Electrophysiological Recording in Neuroscience, France	05/2018
EMBO Laboratory Management course for Postdoctoral Fellows, Germany	10/2016
Targeted Drug Discovery Workshop, National Hellenic Research Foundation, Greece	10/2016
FELASA course on laboratory animals, Germany	06/2016 – 07/2016

OTHER POSITIONS

Project Assistant, Baird Lab, Cornell University, USA	01/2008 – 05/2008
Junior Research Fellow, National Centre for Biological Sciences, India	06/2006 – 05/2007
Research Assistant, National Centre for Biological Sciences, India	05/2005 – 04/2006
CPYLS Fellow, Central Leather Research Institute, India	05/2004 – 06/2004

IN THE MEDIA

PreLights: Synapses drive local mitochondrial ATP synthesis to fuel plasticity ([link](#))

SfN 2024 Celebration of Women in Neuroscience ([link](#))

Stories of WiN, Podcast and Interview ([link](#)).

How Mitochondria Stay Still in Neurons, article in 'The Scientist' ([link](#)).

ALS-linked Protein VAP Stabilizes Mitochondria to Support Memory Formation ([link](#)).

A Molecular Anchor: Scientists Identify ALS-linked Protein VAP as Key Stabilizer of Mitochondria ([link](#))

PreLights: VAP spatially stabilizes dendritic mitochondria to locally fuel synaptic plasticity ([link](#))

Celebrating Women Making History at MPFI ([link](#))

Water Cooler Neuroscience Podcast, How Neurons Use Energy with Dr. Vidhya Rangaraju ([link](#))

MPFI News, Meet the Scientist: Vidhya Rangaraju ([link](#))

PATENT CONTRIBUTION

Quantitative genetically encoded optical reporter construct. U.S. 9487819 B2; Addgene 51819 (>50 requests)

PREPRINTS (lab members; #high school students, undergraduates, post-baccalaureates, master's students)

4. Mitochondria structurally remodel near synapses to fuel the sustained energy demands of plasticity
[Monil Shah](#), [Ilika Ghosh](#), [Luca Pishos](#)[#], Valentina Villani, Tristano Pancani, Ryohei Yasuda, Chao Sun, Naomi Kamasawa, **Vidhya Rangaraju***
bioRxiv doi: 10.1101/2025.08.27.672715 (2025), *in review, Nature Cell Biology*. *corresponding author.
 PMID: 40909516. PMCID: PMC12407993

3. Activity-regulated circSamm50 modulates mitochondrial dynamics and spine structural plasticity

Kaushik Chanda, Ojasee Bapat, Jenna Wingfield, Yosef Avchalumov, Melissa Kazantzis, Jackson Carter, Neelam Sharma, Ronald L. Davis, Jason X-J Yuan, **Vidhya Rangaraju***, Sathyanarayanan Puthanveettil
SSRN [Preprint] doi: 10.2139/ssrn.5396301 (2025), *in revision*, *Cell Reports*. *senior author

2. Synapses drive local mitochondrial ATP synthesis to fuel plasticity

Ilika Ghosh, Ruolin Fan, Monil Shah, Ojasee Bapat, **Vidhya Rangaraju***

bioRxiv doi: 10.1101/2025.04.09.648032 (2025), *in revision*, *Nature Neuroscience*. Number of citations: 3.

Prelights doi: 10.1242/prelights.40383. *corresponding author

1. An expanded palette of bright and photostable organellar Ca²⁺ sensors

Agathe Moret, Helen Farrant, Ruolin Fan, Kelsey G. Zingg, Bryon Silva, Camilla Roselli, Thomas G. Oertner, Christine E. Gee, Dafni Hadjieconomou, **Vidhya Rangaraju***, Eric R. Schreiter, Jaime de Juan-Sanz

bioRxiv doi: 10.1101/2025.01.10.632364 (2025). Number of citations: 2.

eLife 14:RP107845 doi: 10.7554/eLife.107845.1 (2025), *in revision*. *senior author.

PUBLICATIONS (NIH My Bibliography) (lab members; #undergraduates, post-baccalaureates, master's students)

11. Mitochondrial Ca²⁺ efflux controls neuronal metabolism and long-term memory across species

Anjali Amrapali Vishwanath, Typhaine Comyn, Chaitanya Chintaluri, Carla Ramon-Duaso, Ruolin Fan, Riya Sivakumar[#], Mario Lopez-Manzaneda, Thomas Preat, Tim P. Vogels, **Vidhya Rangaraju***, Arnau Busquets-Garcia, Pierre-Yves Placais, Alice Pavlowsky, Jaime de Juan-Sanz

bioRxiv doi: 10.1101/2024.02.01.578153 (2024), Number of citations: 4.

Nature Metabolism, *in press*. *senior author.

10. Periodic ER-plasma membrane junctions support long-range Ca²⁺ signal integration in dendrites

Lorena Benedetti, Ruolin Fan, Aubrey V. Weigel, Andrew S. Moore, Patrick R. Houlihan, Mark Kittisopikul, Grace Park, Alyson Petruncio, Philip M. Hubbard, Song Pang, C. Shan Xu, Harald F. Hess, Stephan Saalfeld, **Vidhya Rangaraju***, David E. Clapham, Pietro De Camilli, Timothy A. Ryan, Jennifer Lippincott-Schwartz

bioRxiv doi: 10.1101/2024.05.27.596121 (2024).

Cell 188, 484 (2025). Number of citations: 33, *senior author. PMID: 39708809.

9. Synaptically-targeted long non-coding RNA SLAMR promotes structural plasticity by increasing translation and CaMKII activity

Isabel Espadas, Jenna L. Wingfield, Yoshihisa Nakahata, Kaushik Chanda, Eddie Grinman, Ilika Ghosh, Karl E.

Bauer, Bindu Raveendra, Michael A. Kiebler, Ryohei Yasuda, **Vidhya Rangaraju***, Sathyanarayanan Puthanveettil

Res. Sq. [Preprint] doi: 10.21203/rs.3.rs-2489387/v1 (2023). Number of citations: 3

Nature Communications 15, 2694 (2024). Number of citations: 16, *senior author. PMID: 38538603. PMCID: PMC10973417.

8. NMNAT2 supports vesicular glycolysis via NAD homeostasis to fuel fast axonal transport

Sen Yang, Zhen-Xian Niou, Andrea Enriquez, Jacob LaMar[#], Jui-Yen Huang, Karen Ling, Paymaan Jafar-Nejad, Jonathan Gilley, Michael P Coleman, Jason M Tennessen, **Vidhya Rangaraju***, Hui-Chen Lu

Res. Sq. [Preprint] doi: 10.21203/rs.3.rs-2859584/v1 (2023). Number of citations: 3

Molecular Neurodegeneration 19, 13 (2024). Number of citations: 24, *senior author. PMID: 38282024. PMCID: PMC10823734.

7. VAP spatially stabilizes dendritic mitochondria to locally support synaptic plasticity

Ojasee Bapat, Tejas Purimetla[#], Sarah Kruessel[#], Monil Shah, Ruolin Fan, Christina Thum, Fiona Rupprecht, Julian D. Langer, **Vidhya Rangaraju***

bioRxiv doi: 10.1101/2023.01.16.524245 (2023). Number of citations: 4

Prelights doi: 10.1242/prelights.33633.

Nature Communications 15, 205 (2024). Number of citations: 36, *corresponding author. PMID: 38177103. PMCID: PMC10766606.

6. The Prevalence and Specificity of Local Protein Synthesis during Neuronal Synaptic Plasticity

Chao Sun, Andreas Nold, Claudia M Fusco, **Vidhya Rangaraju***, Tatjana Tchumatchenko, Mike Heilemann, Erin M. Schuman

bioRxiv doi: 10.1101/2020.04.29.068833 (2020). Number of citations: 4

- Science Advances* 7, eabj0790 (2021). Number of citations: 106, *senior author. PMID: 34533986. PMCID: PMC8448450.
5. Pleiotropic mitochondria: The influence of mitochondria on neuronal development and disease
Vidhya Rangaraju, Tommy L. Lewis Jr, Yusuke Hirabayashi, Matteo Bergami, Elisa Motori, Romain Cartoni, Seok-Kyu Kwon, Julien Curchet
Journal of Neuroscience 39, 8200 (2019). Number of citations: 268. PMID: 31619488. PMCID: PMC6794931.
4. A genetically encodable cell-type-specific protein synthesis inhibitor
Maximilian Heumüller, Caspar Glock, **Vidhya Rangaraju**, Anne Biever, Erin M Schuman
Nature Methods 16, 699 (2019). Number of citations: 20. PMID: 31308551.
3. Spatially stable mitochondrial compartments fuel local translation during plasticity
Vidhya Rangaraju, Marcel Lauterbach and Erin M Schuman
Cell 176, 73 (2019). Number of citations: 393. PMID: 30612742.
Special commentary in *Neuron* 101, 204 (2019)
2. Local translation in neuronal compartments: how local is local?
Vidhya Rangaraju*, Susanne tom Dieck and Erin M Schuman
EMBO reports 18, 693 (2017), Invited review, Number of citations: 219, *corresponding author. PMID: 28404606. PMCID: PMC5412868.
1. Activity-driven local ATP synthesis is required for synaptic function
Vidhya Rangaraju, Nathaniel Calloway and Timothy A. Ryan
Cell 156, 825 (2014). Number of citations: 890. PMID: 24529383. PMCID: PMC3955179.