



Vimala Bharadwaj

Postdoctoral Scholar, Anesthesiology, Perioperative and Pain Medicine

Bio

BIO

Dr. Bharadwaj grew up in India and came to the United States for her graduate studies. She completed her Ph.D. in Biomedical Engineering at Arizona State University. Her doctoral work focused on preclinical studies investigating nanoparticle delivery across the blood-brain barrier after traumatic brain injury. In 2018, she joined Drs. Porreca and Anderson laboratories at the University of Arizona for postdoctoral training. Her postdoctoral work focused on identifying the critical role of dorsal pons neurons in the migraine pain pathway. Currently, she continues her migraine research in Dr. Yeomans's lab at Stanford Medicine. Dr. Bharadwaj is also currently involved in post-traumatic headache research in Dr. David Clark's laboratory at the Veterans Affairs (Palo Alto). Recently, she was awarded the prestigious International Headache Society Fellowship for investigating mechanisms for migraine pain generation. Over the years, she has held several leadership positions including serving as the communications director for Stanford Postdoctoral Association, as a diversity, equity, and inclusion Ally for the American Headache Society, and as an assistant editorial team member for the Headache journal.

HONORS AND AWARDS

- International Headache Society Fellowship, International Headache Society (July 2021-July 2022)
- Sursum fellow, Postdoctoral research development grant, University of Arizona (June 2019-June 2020)
- STAR (Student Travel Achievement Recognition) award, Society for Biomaterials (2019, 2017)
- Graduate college completion fellowship, Arizona State University (Spring 2018)
- Outstanding mentor award, Graduate and Professional Student Association, Arizona State University (April 2018)
- Outstanding achievement award - Honorary mention, Society for Biomaterials (2018)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Communications Director, Stanford Postdoctoral Association (SURPAS) (2021 - present)
- Secretary/Treasurer of Nanomaterials SIG, Society for Biomaterials (2019 - present)
- Assistant Editorial Team, Headache (2021 - present)
- Review Editor, Frontiers in Pain Research (Headache) (2021 - present)
- Reviewer board member, Pharmaceutics (2021 - present)
- Diversity, Equity, and Inclusion Ally, American Headache Society (2021 - present)
- Social media manager, Stanford Postdoctoral Association (SURPAS) (2021 - 2021)
- Social media and communication chair, Graduate Women in Science, Arizona chapter (2018 - 2021)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Arizona State University (2018)

- Bachelor of Engineering, Unlisted School (2011)
- Master of Science, Arizona State University (2013)

STANFORD ADVISORS

- David Yeomans, Postdoctoral Faculty Sponsor
- David Yeomans, Postdoctoral Research Mentor

Publications

PUBLICATIONS

- **Impact of Magnesium on Oxytocin Receptor Function.** *Pharmaceutics*
Bharadwaj, V. N., Meyerowitz, J., Zou, B., Klukinov, M., Yan, N., Sharma, K., Clark, D. J., Xie, X., Yeomans, D. C.
2022; 14 (5)
- **Headache basic science prize.** *Headache*
Pradhan, A. A., Bharadwaj, V.
2022
- **Intranasal Administration for Pain: Oxytocin and Other Polypeptides.** *Pharmaceutics*
Bharadwaj, V. N., Tzabazis, A. Z., Klukinov, M., Manering, N. A., Yeomans, D. C.
2021; 13 (7)
- **A new hypothesis linking oxytocin to menstrual migraine.** *Headache*
Bharadwaj, V. N., Porreca, F., Cowan, R. P., Kori, S., Silberstein, S. D., Yeomans, D. C.
2021
- **Platelet-like particles reduce coagulopathy-related and neuroinflammatory pathologies post-experimental traumatic brain injury** *JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART B-APPLIED BIOMATERIALS*
Todd, J., Bharadwaj, V. N., Nellenbach, K., Nandi, S., Mihalko, E., Copeland, C., Brown, A. C., Stabenfeldt, S. E.
2021
- **Sex-Dependent Macromolecule and Nanoparticle Delivery in Experimental Brain Injury** *TISSUE ENGINEERING PART A*
Bharadwaj, V. N., Copeland, C., Mathew, E., Newbern, J., Anderson, T. R., Lifshitz, J., Kodibagkar, V. D., Stabenfeldt, S. E.
2020; 26 (13-14): 688-701
- **Blood-brainbarrier disruption dictates nanoparticle accumulation following experimental brain injury** *NANOMEDICINE-NANOTECHNOLOGY BIOLOGY AND MEDICINE*
Bharadwaj, V. N., Rowe, R. K., Harrison, J., Wu, C., Anderson, T. R., Lifshitz, J., Adelson, P., Kodibagkar, V. D., Stabenfeldt, S. E.
2018; 14 (7): 2155-2166
- **Nanoparticle-Based Therapeutics for Brain Injury** *ADVANCED HEALTHCARE MATERIALS*
Bharadwaj, V. N., Nguyen, D. T., Kodibagkar, V. D., Stabenfeldt, S. E.
2018; 7 (1)
- **Temporal assessment of nanoparticle accumulation after experimental brain injury: Effect of particle size** *SCIENTIFIC REPORTS*
Bharadwaj, V. N., Lifshitz, J., Adelson, P., Kodibagkar, V. D., Stabenfeldt, S. E.
2016; 6: 29988