Last updated on 25 June 2024

NIPUNA WEERASINGHE

South San Francisco, CA

Cell: (520) 5515674 https://www.nipunaweerasinghe.com nipuna.we@gmail.com

EDUCATION

MA: Chemistry | **University of Arizona**, Tucson, AZ, United States Aug 2016
Major: Analytical Chemistry; Minor: Biochemistry

BS: Chemistry | **University of Colombo**, Colombo, Sri Lanka Oct 2011
Minors: Biochemistry and Molecular Biology, Computer Science, Plant Science

Honors Thesis Advisor: Prof. M. D. P. de Costa

Title: "Development of a New Polydentate Hydroxamic Acid Ligand and Measuring Its Stability Constant with Metal Ions"

PROFESSIONAL AND RESEARCH EXPERIENCE

Research Experience at Prof. Michael F. Brown's Lab, Sep 2016–Present
Department of Chemistry and Biochemistry
The University of Arizona — Tucson, AZ

- Conducted research utilizing advanced molecular spectroscopic techniques (UV-Vis, IR, ssNMR, XFEL, DLS, and Native-MS) combined with computational and theoretical analyses to investigate soft matter influences and structural changes in the activation of the archetypical G-protein–coupled receptor (GPCR) rhodopsin.
- Developed, optimized, and scaled up purification processes for rhodopsin from bovine retinas, employing techniques such as tissue homogenization, centrifugation, column purification (affinity, CEX, AEX, MMC), and filtration, ensuring high purity and yield.
- Reconstituted rhodopsin into recombinant POPC lipid vesicles and detergent micelles (CHAPS, DDM) to conduct experiments on the protein's conformational dynamics in various environments.
- Integrated, improved, and analyzed extensive data sets using Excel and Python, ensuring meticulous record-keeping and data integrity.
- Collaborated cross-functionally with team members and other departments, significantly contributing to biophysical studies of rhodopsin, and presenting findings at numerous prestigious conferences (ASBMB, ACS, BPS), including six oral and twelve poster presentations.
- Co-authored three peer-reviewed papers published in high-impact journals, with an additional paper under review and two manuscripts currently in preparation.
- Demonstrated the ability to independently design, execute, and interpret critical experiments to address complex scientific questions, contributing to the advancement of knowledge in the field of GPCR research.

Contributing Writer, ASBMB Today Aug 2021–Present

- Compose articles on various topics in biochemistry and molecular biology, focusing on current trends, significant research developments, and profiles of emerging and established scientists.
- Conduct in-depth interviews with researchers, translating complex scientific concepts and research findings into accessible and engaging content for a broad audience.

Scientific Associate, Dr. GPCR Ecosystem Jul 2022–Mar 2023

- Developed and authored comprehensive articles on various G-protein-coupled receptor (GPCR) topics, significantly enhancing the scientific content available to the Dr. GPCR community.
- Proactively managed and promoted Dr. GPCR's content on social media platforms, including LinkedIn and the website, leading to increased visibility and engagement within the scientific community.
- Conducted thorough monthly literature and event surveys, identifying and summarizing recently published journal articles related to GPCRs, keeping the community up-to-date with the latest research.
- Compiled and prepared monthly newsletters, effectively disseminating updates on Dr. GPCR community events, commercial activities, and recent research work, thereby fostering a well-informed and connected community.

Trainee, Prof. Jonathan Javitch's Lab, May 2022–Jul 2022
Division of Molecular Therapeutics
Columbia University Irvin Medical Center — New York, NY

- Received specialized training in gene reporter bioassays, focusing on various truncated constructs of adhesion G-protein-coupled receptors (GPCRs), enhancing understanding of receptor function.
- Gained hands-on experience in advanced molecular biology techniques, including receptor biology and assay development, contributing to the advancement of research in the field of molecular therapeutics.

Volunteer Research Assistant, Mar 2018–July 2018
Analytical & Biological Mass Spectrometry Core Facility
The University of Arizona — Tucson, AZ

- Performed mass spectrometry analyses on samples containing lower molecular weight compounds and peptides, aiding in identification and characterization.
- Utilized advanced mass spectrometry equipment (Bruker amaZon Ion Trap, capLC, Bruker Autoflex Speed MALDI-TOF) combined with HPLC and GC instruments for detailed small molecule characterization.
- Developed expertise in sample preparation, instrument operation, and data analysis, contributing to multiple research projects.

Research Associate May 2017–Dec 2017
Department of Tissue Research and Early Development
Roche Tissue Diagnostics — Tucson, AZ (A part of F. Hoffmann-La Roche Ltd)

- Collaborated with Dr. Kimberly Spark, Dr. Alexis Valentín-Vargas, and Dr. Nate Polaske on projects focused on early research and development phases of high-throughput special stain assays for automated staining platforms, including the BenchMark Special Stains system.
- Conducted controlled laboratory experiments to support feasibility testing, verification, validation, process optimization, and scale-up of high-value reagents for diagnostic applications. These included special stains, primary stain reagents, and assays for histopathology, adhering to good laboratory practices (GLP), good lab notebook practices, and FDA guidelines when applicable.
- Created and executed experimental protocols for Benchmark Special Stains instruments, encompassing tissue acquisition, labeling, protocol design, reagent preparation, and troubleshooting.
- Conducted literature reviews and early feasibility studies to identify a replacement for $CrO_3(aq)$ in the VENTANA GMS Assay, ensuring compliance with the European Union's REACH regulations.

- Oversaw kit and tissue ordering, storage, inventory management, and instrument maintenance. Trained new employees on lab procedures and company-specific software, ensuring adherence to GLP, good lab notebook practices, and FDA guidelines when applicable.
- Actively contributed to cross-departmental meetings, presenting and discussing experimental results with project teams to facilitate collaborative progress and development.

Graduate Research Assistant, Prof. Craig Aspinwall's Lab Aug 2013–Aug 2016
Department of Chemistry and Biochemistry
The University of Arizona — Tucson, AZ

- Developed a novel nano-scale biosensor platform utilizing chimeric ion channel-coupled receptors (ICCRs) from class A GPCRs covalently coupled to a Kir 6.2 ion channel, reconstituted in partially polymerized black lipid membranes.
- Led the development of cell-based (mammalian) and cell-free expression strategies to produce functional Kir 6.2 protein chimeras (EGFP-Kir, D2-Kir, and M2-Kir), optimizing both transient and stable transfection methods.
- Utilized immunocytochemistry (ICC) and confocal microscopy (CM) to assess the localization and expression levels of chimeric proteins. Employed patch-clamp (PC) techniques and calcium imaging to evaluate the functional characteristics of the protein chimeras.
- Supervised tasks such as culture initiation, propagation, cryopreservation, reagent and buffer preparation, sterile handling of laboratory equipment, instrument maintenance, and cell plating for various assays.

Clinical Research Coordinator Jul 2011–Jul 2012
Sri Jayewardenepura General Hospital, Nugegoda, Sri Lanka
RemediumOne Pvt. Ltd. — Colombo, Sri Lanka

- Worked under Prof. Asitha de Silva and Prof. Ravindra L. Satarasinghe.
- Oversaw phase II and phase III clinical trials sponsored by Eli Lilly, Boehringer Ingelheim, Merck, Takeda, and IQVIA.
- Ensured clinical research and related activities were performed in compliance with good clinical practice (GCP), sponsor protocols, and FDA regulations.
- Managed investigator site files (ISFs) and training records to ensure site readiness for monitoring visits and audits.
- Assisted in training individuals involved in the study, scheduling patient visits, executing the research plan, maintaining proper source documentation, and managing investigational product (IP) dispensation and inventory.
- Maintained a smooth working atmosphere at the site, performed all administrative tasks, and served as a liaison between the principal investigator (PI) and sponsors.

Honors project for the undergraduate degree, M. D. P. de Costa's Lab Aug 2008–Oct 2009
Department of Chemistry
University of Colombo — Colombo, Sri Lanka

- Conducted literature searches and executed novel routes for synthesizing a tripodal peptide hydroxamate ligand: *nitrilotriacetiohydroxamic acid*.
- Performed speciation studies of iron complexes using UV-Vis spectroscopy.
- Analyzed data to assess the covalent character of the Fe-ligand bond, contributing to understanding metal-ligand interactions.

TEACHING & MENTORING EXPERIENCE

Graduate Teaching Assistant, Aug 2013–Aug 2016
Department of Chemistry and Biochemistry
University of Arizona, Tucson, AZ

- Lectured and managed classes of up to 24 students each semester in courses including *CHEM 151 General Chemistry and CHEM 152 General Chemistry II*, focusing on fundamental concepts and laboratory techniques.
- Supported students in understanding general chemistry concepts, graded lab reports and class assignments, and guided them on laboratory techniques.
- Assisted professors in large lecture classes (100-200 students), including proctoring and grading exams.
- Tutored students from large lecture classes in one-on-one and small group settings, focusing on exam preparation, homework, and lab assignments, emphasizing core concepts and practice problems.
- Utilized the Desire2Learn online learning management system to organize course content, grade assignments, and maintain communication with students, enhancing educational transparency and support.

Private Tutor, University of Arizona, Tucson, AZ Aug 2015 – Present

- Provide one-on-one and online tutoring in undergraduate-level subjects, including *chemical engineering, physics, genetics, organic chemistry, analytical chemistry, general chemistry, and physical chemistry*.
- Focus on helping students grasp core concepts and apply them effectively in their coursework and exams.

Private Tutor, Colombo, Sri Lanka Aug 2005 – Aug 2012

- Conducted one-on-one and online tutoring sessions for students in *GCE A/L chemistry, physics, and biology*, helping them understand and apply key concepts in their studies.

Lab of Prof. Michael F. Brown Sep 2016–Present
Department of Chemistry and Biochemistry
University of Arizona, Tucson, AZ

- Mentored and trained visiting researchers and graduate, undergraduate, and high school students in lab protocols and instrument handling.
- Supervised high school interns from the *University of Arizona KEYS program* (summers of 2017, 2018, and 2019) and guided undergraduate and graduate students, including *Helen F. Mann, Gabrielle I. Fitzwater, Emily Cosgriff, Carolanne Norris, Anna R. Eitel, and Margaret Vos.*

ACADEMIC HONORS, FELLOWSHIPS, GRANTS & SCHOLARSHIPS

- **2024 Leadership Development Award** **2023**
  Younger Chemists Committee, American Chemical Society
  Received in recognition of potential and achievements in chemistry as a leader, supporting participation in the YCC Leadership Development Workshop and the 2024 ACS Leadership Institute.
- **2022 ASBMB Annual Meeting Travel Award** **2022**
- **Fellowship Grant for the 2020 Copenhagen Bioscience Conference (CBC20), Protein Signaling** **2021**
  Awarded by The Novo Nordisk Foundation
- **2021 Protein Society Diversity Award Recipient** **2021**
  Honored with the inaugural Diversity Award by The Protein Society, recognizing significant contributions to promoting diversity and inclusion in the field.
- **Finalist in The Poster Competition, EB2021 GPCR Colloquium** **2021**
  Selected as one of the top nine finalists for the best poster prize award in the GPCR Colloquium in EB2021
- **2021 IUBMB Travel Fellowship** **2021**
  Awarded the inaugural travel fellowship by the International Union of Biochemistry and Molecular Biology (IUBMB), in recognition of exceptional research potential.
- **2021 ASBMB Annual Meeting Award** **2021**
- **Early Career Investigator Poster Prize** **2020**
  Awarded at the Third ERNEST Meeting organized by the European Research Network on Signal Transduction
- **Special Meeting Fellowship** **2020**
  Awarded by the IUBMB to defray the expenses of the Cell Signaling in Cancer Conference organized by FASEB
- **Elected Associate Member** **2020**
  Sigma Xi, the Scientific Research Honorary Society
- **2020 Young Investigator Award** **2020**
  Awarded by the Society for Experimental Biology and Medicine (SEBM)
- **Elected Member** **2020**
  The Golden Key International Honor Society
- **2019 ASBMB Annual Meeting Travel Award** **2019**
- **2019 BPS Annual Meeting Travel Award** **2019**
- **Best Poster Presenter at the 15th Annual Biophest Symposium** **2018**
- **Honors in English Language Scholarship Program** **2010**
  John Keells Holdings PLC and Gateway Language Center

- **MIND Scholarship** **2008–2009**
  Awarded by the Munasinghe Institute for Development, Colombo, Sri Lanka
- **Mahapola Merit Higher Education Scholarship** **2005–2011**
  Awarded by The Mahapola Trust Fund of the Government of Sri Lanka

PUBLICATIONS

Peer-reviewed Journal Articles Published

- Fried, S. D. E.; Hewage, K. S. K.; Eitel, A. R.; Struts, A. V.; **Weerasinghe, N.**; Perera, S. M. D. C.; Brown, M. F., Hydration-mediated G-protein–coupled receptor activation. *Proc. Natl. Acad. Sci. U. S. A.* **2022,** *119* (21), e2117349119. DOI:10.1073/pnas.2117349119. (PMID: 35584119)
- Chawla, U.; Perera, S. M. D. C.; Fried, S. D. E.; Eitel, A. R.; Mertz, B.; **Weerasinghe, N.**; Pitman, M. C.; Struts, A. V.; Brown, M. F., Activation of the G-Protein-Coupled Receptor Rhodopsin by Water. *Angew. Chem., Int. Ed.* **2021**, *60* (5), 2288–2295. DOI:10.1002/anie.202003342. (PMID: 32596956)
- Norris, C. E.; Keener, J. E.; Perera, S. M. D. C.; **Weerasinghe, N.**; Fried, S. D. E.; Resager, W. C.; Rohrbough, J. G.; Brown, M. F.; Marty, M. T., Native Mass Spectrometry Reveals the Simultaneous Binding of Lipids and Zinc to Rhodopsin. *Int. J. Mass Spectrom*. **2021**, 460, 116477. DOI:10.1016/j.ijms.2020.116477. (PMID: 33281496)

Journal Articles Submitted

- Grant, T. D.; Perera, S. M. D. C.; Salas-Estrada, L. A.; Struts, A. V.; Xu, X.; Fried, S. D. E.; **Weerasinghe, N.**; Chawla, U.; Alvarez, R.; Coe, J.; Fromme, R.; Karpos, K.; Lisova, S.; Meza, D.; Nazari, R.; Singharoy, A.; Zaare, S.; Zatsepin, N. A.; Perakis, F.; Carbajo, S.; Hunter, M. S.; Liang, M.; Seaberg, M. D.; Boutet, S.; Grossfield, A.; Mendez, D.; Fromme, P.; Kirian, R. A.; Brown, M. D F.; Functional Dynamics of G-Protein-Coupled Receptor Revealed By X-Ray Scattering with a Free-Electron Laser.

Review Articles in Preparation

- **Weerasinghe, N.**; Perera, S. M. D. C.; Brown, M. F., Roles of Water Molecules in the Structure and Function of G Protein-Coupled Receptor Rhodopsin. (Invited review)

Published Conference Abstracts

- Menon, C. S. K.; Grant, T. D.; Perera, S. M. D. C.; Estrada, L. L. A. A. S.; Struts, A. V.; Karpos, K.; Chawla, U.; Fried, S. D. E.; **Weerasinghe, N.**; Meza, D.; Mendez, D.; Grossfield, A.; Fromme, P.; Kirian, R. A.; Brown, M. F. Membrane Protein Dynamics: Insights from Femtosecond Time-Resolved X-Ray Solution Scattering. *Biophys. J.* **2024**, *123* (3), 69a. DOI: 10.1016/j.bpj.2023.11.488.
- Brown, M. F.; Grant, T. D.; Perera, S. M. D. C.; Salas-Estrada, L. A.; Struts, A. V.; Karpos, K., Chawla, U.; Fried, S. D. E.; **Weerasinghe, N.**; Mendez, D.; Meza, D.; Grossfield, A.; Fromme, P.; Kirian, R. A., Femtosecond Dynamics of Rhodopsin Hidden States Revealed by Xray Free Electron Laser. *Biophys. J.* **2023**, 122 (3, Supplement 1), 199a. DOI:10.1016/j.bpj.2022.11.1208.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Extent of Internal Hydration influence the Activation of GPCR Rhodopsin. *FASEB J.* **2022**, 36(S1), 1-1. DOI: 10.1096/fasebj.2022.36.S1.R5935.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Modulation of GPCR Rhodopsin Function by Membrane Lipids and Water. *FASEB J.* **2022**, 36(S1), 1-1. DOI: 10.1096/fasebj.2022.36.S1.R6234.

- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Hydration-Water and Membrane Lipids Modulate G-Protein-Coupled Receptor Activation. *Biophys. J.* **2022**. 121 (3, Supplement 1), 457a-458a. DOI: 10.1016/j.bpj.2021.11.494.
- Brown, M. F.; Grant, T. D.; Perera, S. M. D. C.; Salas-Estrada, L. A.; Struts, A. V.; Karpos, K.; Chawla, U.; Fried, S. D. E.; Menon, S. K.; **Weerasinghe, N.**; Meza-Aguilar, J. D.; Mendez, D.; Grossfield, A.; Fromme, P.; Kirian, R. A., Functional Dynamics of G-Protein-Coupled Receptor Shown by Femtosecond X-Ray Scattering. *Biophys. J.* **2022**. 121 (3, Supplement 1), 193a. DOI: 10.1016/j.bpj.2021.11.1755.
- Fried, S. D. E.; Hewage, K. S. K.; Eitel, A. R.; Struts, A. V.; **Weerasinghe, N.**; Perera, S. M. D. C.; Brown, M. F., Activation of G-Protein-Coupled Receptors by Hydration Driven Sponge Mechanism. *Biophys. J.* **2022**. 121 (3, Supplement 1), 458a. DOI: 10.1016/j.bpj.2021.11.495.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Lipid Membrane and Protein Hydration Level Play a Critical Role in GPCR Activation. *Protein Science*. **2021.** 30(S1): 16–190. DOI: 10.1002/pro.4191.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Hydration Drives Activation of the G-Protein-Coupled Receptor Rhodopsin. *FEBS Open Bio*. **2021.** 11(S1): 103–507. DOI: 10.1002/2211-5463.13205.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Hydration Drives Activation of the G-Protein-Coupled Receptor Rhodopsin. *FASEB J.* **2021**. *35* (S1), 1-1. DOI: 10.1096/fasebj.2021.35.S1.01604.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Membrane Lipids and Cellular Water Modulate the G-Protein–Coupled Receptor Activation. *FASEB J.* **2021**. *35* (S1), 1-1. DOI: 10.1096/fasebj.2021.35.S1.01605.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Solvation Drives G-Protein–Coupled Receptor Activation. *Biophys. J.* **2021**, *120* (3, Supplement 1), 128a. DOI: 10.1016/j.bpj.2020.11.984.
- Grant, T. D.; Perera, S. M. D. C.; Salas-Estrada, L. A.; Struts, A. V.; Chawla, U.; Xu, X.; Fried, S. D. E.; Menon, S. K.; **Weerasinghe, N.**; Karpos, K.; Meza-Aguilar, J. D.; Zatsepsin, N. A.; Grossfield, A.; Mendez, D.; Fromme, P.; Kirian, R. A.; Brown, M. F., Ultrafast Membrane Protein Dynamics Revealed by X-Ray Scattering with a Femtosecond Free-Electron Laser. *Biophys. J.* **2021,** *120* (3, Supplement 1), 133a. DOI: 10.1016/j.bpj.2020.11.1006.
- Fried, S. D. E.; Cabrera, B. H. C.; Eitel, A. R.; Hewage, K. S. K.; Struts, A. V.; **Weerasinghe, N.**; Perera, S. M. D. C.; Brown, M. F., Hydration and Protonation Effects on Activation of G-Protein-Coupled Receptors. *Biophys. J.* **2021**, *120* (3, Supplement 1), 130a–131a. DOI: 10.1016/j.bpj.2020.11.995.
- **Weerasinghe, N.**; Mann, H. F.; Eitel, A. R.; Fried, S. D. E.; Cosgriff, E. L.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Soft Matter Control of GPCR Function by Membrane Lipids and Water. *Biophys. J.* **2020**, *118* (3, Supplement 1), 239a-239a. DOI:10.1016/j.bpj.2019.11.1408.
- **Weerasinghe, N.**; Fried, S. D. E.; Eitel, A. R.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Allosteric Regulation of GPCR Rhodopsin by Soft Matter. *Abstr. Pap. Am. Chem. Soc.* **2020**, *259*. DOI:10.1021/scimeetings.0c06874.
- **Weerasinghe, N.**; Fried, S. D. E.; Eitel, A. R.; Mann, H. F.; Cosgriff, E. L.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Modulation of GPCR Function by Membrane Lipids and Water. *FASEB J.* **2020**, *34* (S1), 1-1. DOI:10.1096/fasebj.2020.34.s1.04282.
- Salas-Estrada, L. A.; Grant, T. D.; Perera, S. M. D. C.; Struts, A. V.; Chawla, U.; Xu, X. L.; Fried, S. D. E.; **Weerasinghe, N.**; Mendez, D.; Alvarez, R.; Karpos, K.; Lisova, S.; Zaare, S.; Nazari, R.; Zatsepsin,

N. A.; Singharoy, A.; Boutet, S.; Carbajo, S.; Hunter, M. S.; Liang, M.; Seaberg, M. D.; Fromme, R.; Fromme, P.; Kirian, R. A.; Brown, M. F.; Grossfield, A., Rhodopsin's Ultra-Fast Activation Dynamics in Bilayer and Micelle Environments. *Biophys. J.* **2020**, *118* (3, Supplement 1), 92a-92a. DOI:10.1016/j.bpj.2019.11.669.

- Norris, C. E.; Keener, J. E.; **Weerasinghe, N.**; Brown, M. F.; Marty, M. T., Investigating the Influences of Lipid Binding on Rhodopsin Activation using Native Mass Spectrometry. *Biophys. J.* **2020**, *118* (3, Supplement 1), 17a-18a. DOI:10.1016/j.bpj.2019.11.279.
- Grant, T. D.; Perera, S. M. D. C.; Salas-Estrada, L. A.; Struts, A. V.; Chawla, U.; Xu, X. L.; Fried, S. D. E.; **Weerasinghe, N.**; Mendez, D.; Alvarez, R.; Karpos, K.; Lisova, S.; Zaare, S.; Nazari, R.; Zatsepsin, N. A.; Singharoy, A.; Boutet, S.; Carbajo, S.; Hunter, M. S.; Liang, M.; Seaberg, M. D.; Fromme, R.; Fromme, P.; Grossfield, A.; Kirian, R. A.; Brown, M. F., Membrane Protein Dynamics Revealed by X-Ray Scattering with a Femtosecond Free-Electron Laser. *Biophys. J.* **2020**, *118* (3, Supplement 1), 365a-365a. DOI:10.1016/j.bpj.2019.11.2097.
- Fried, S. D. E.; Eitel, A. R.; **Weerasinghe, N.**; Fitzwater, G. I.; Somers, J. D.; Chawla, U.; Pitman, M. C.; Mertz, B.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., G-Protein-Coupled Receptors are Solvent-Swollen in the Functionally Active State. *Biophys. J.* **2020**, *118* (3, Supplement 1), 527a-527a. DOI:10.1016/j.bpj.2019.11.2895.
- Eitel, A. R.; **Weerasinghe, N.**; Fried, S. D. E.; Perera, S. M. D. C.; Cosgriff, E. L.; Fitzwater, G. I.; Mann, H. F.; Struts, A. V.; Brown, M. F., Water and Membrane Lipids Govern G-Protein Activation. *Biophys. J.* **2020**, *118* (3, Supplement 1), 80a-80a. DOI:10.1016/j.bpj.2019.11.607.
- **Weerasinghe, N.**; Perera, S. M. D. C.; Molugu, T. R.; Salinas, A. M.; Brown, M. F., Rhodopsin Hydration Dynamics Studied by Solid-State Deuterium NMR Spectroscopy. *Biophys. J.* **2019**, *116* (3, Supplement 1), 462a-463a. DOI:10.1016/j.bpj.2018.11.2499.
- **Weerasinghe, N.**; Perera, S. M. D. C.; Molugu, T. R.; Brown, M. F., Functional Water Dynamics in Rhodopsin Using Solid-State Deuterium NMR Spectroscopy. *FASEB J.* **2019**, *33* (1_supplement), 655-9. DOI:10.1096/fasebj.2019.33.1_supplement.655.9.
- Fried, S. D. E.; Eitel, A. R.; **Weerasinghe, N.**; Norris, C. E.; Vos, M. R.; Somers, J. D.; Fitzwater, G. I.; Pitman, M. C.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Hydration Modulates G-Protein-Coupled Receptor Signaling. *FASEB J.* **2019**, *33* (1_supplement), 462-1. DOI:10.1096/fasebj.2019.33.1_supplement.462.1.
- Fried, S. D. E.; Eitel, A. R.; **Weerasinghe, N.**; Norris, C. E.; Somers, J. D.; Fitzwater, G. I.; Pitman, M. C.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., G-Protein-Coupled Receptor Activation Mediated by Internal Hydration. *Biophys. J.* **2019**, *116* (3, Supplement 1), 207a-207a. DOI:10.1016/j.bpj.2018.11.1140.
- Eitel, A. R.; Fried, S. D. E.; Perera, S. M. D. C.; Weerasinghe, N.; Norris, C. E.; Struts, A. V.; Brown, M. F., Flexible surface model for lipid-protein interactions. *Abstr. Pap. Am. Chem. Soc.* **2019,** *257*, 0065–7727. DOI:10.6084/m9.figshare.13263095.
- Eitel, A. R.; Fried, S. D. E.; Perera, S. M. D. C.; Chawla, U.; **Weerasinghe, N.**; Norris, C. E.; Struts, A. V.; Brown, M. F., Sponge Model of G-Protein Binding and Unbinding in Membranes. *Biophys. J.* **2019**, *116* (3, Supplement 1), 176a-176a. DOI:10.1016/j.bpj.2018.11.976.
- **Weerasinghe, N.**; Fried, S. D. E.; Perera, S. M. D. C.; Eitel, A. R.; Chawla, U.; Molugu, T. R.; Struts, A. V.; Brown, M. F., G-Protein-Coupled Receptor Activation through Membrane Deformation. *Biophys. J.* **2018**, *114* (3, Supplement 1), 274a-274a. DOI:10.1016/j.bpj.2017.11.1583.
- **Weerasinghe, N.**; Fried, S. D. E.; Perera, S. M. D. C.; Chawla, U.; Brown, M. F., Hydration Mediated G-Protein-Coupled Receptor Activation. *FASEB J.* **2018**, *32* (1_supplement), lb64-lb64. DOI:10.1096/fasebj.2018.32.1_supplement.lb64.

Scientific Journalism and Outreach

ASBMB Today (The Member Magazine of The American Society for Biochemistry and Molecular Biology)

- **Weerasinghe, N.**; In Memoriam: Henry Michael Miziorko. *ASBMB Today*. June 3, 2024. https://www.asbmb.org/asbmb-today/people/060324/in-memoriam-henry-michael-miziorko (accessed 2024-06-23).
- **Weerasinghe, N.**; *Swapping stethoscope for pipette to understand diabetic retinopathy*. *ASBMB Today*, May 01, 2024. https://www.asbmb.org/asbmb-today/people/050124/swapping-stethoscope-for-pipette-to-understand-dia (accessed 2024-05-11).
- **Weerasinghe, N.**; *A tiny genetic tweak with big heart health implications*. *ASBMB Today*, Jan 02, 2024. https://www.asbmb.org/asbmb-today/science/010224/a-tiny-genetic-tweak-with-big-heart-health-implica (accessed 2024-05-11).
- **Weerasinghe, N.**; Ando's pioneering journey: From physics to structural enzymology. *ASBMB Today*, Nov 07, 2023. https://www.asbmb.org/asbmb-today/people/110723/andos-pioneering-journey (accessed 2023-11-12).
- **Weerasinghe, N.**; Spotlight on Niemann-Pick Disease; From genes to hope. *ASBMB Today*, Oct 19, 2023. https://www.asbmb.org/asbmb-today/science/101923/niemann-pick-disease-awareness (accessed 2023-10-24).
- **Weerasinghe, N.**; In memoriam: John DeMoss. *ASBMB Today*, Oct 2, 2023. https://www.asbmb.org/asbmb-today/people/100223/in-memoriam-john-demoss (accessed 2023-10-08).
- **Weerasinghe, N.**; Spotlight on CLOVES syndrome. *ASBMB Today*, Aug 3, 2023. https://www.asbmb.org/asbmb-today/science/080323/spotlight-on-cloves-syndrome (accessed 2023-08-31).
- **Weerasinghe, N.**; From the journals: JLR. *ASBMB Today*, May 4, 2023. https://www.asbmb.org/asbmb-today/science/050423/from-the-journals-jlr (accessed 2023-06-27).
- **Weerasinghe, N.**; Airola seeks the secrets of lipid-modifying enzymes. *ASBMB Today*, January 18, 2023. https://www.asbmb.org/asbmb-today/people/011823/airola-seeks-the-secrets-of-lipid-modifying-enzyme (accessed 2023-06-27).

Dr. GPCR Ecosystem

- **Weerasinghe, N.**; *Ode to GPCRs*. Dr. GPCR Ecosystem. https://www.ecosystem.drgpcr.com/post/ode-to-gpcrs (accessed 2023-08-31).

PRESENTATIONS

Oral Presentations

- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., The Modulation of Conformational Energetics of GPCR Activation by Water.
  Building a Comprehensive Map of GPCR Signal Transduction: 6th ERNEST Meeting, online, Mar 28–31, 2022.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Hydration Drives G-Protein–Coupled Receptor Rhodopsin Activation.
  From Physiology to Drug: 9th GDR3545-GPCR international meeting, online, Nov 06–09, 2020.

- **Weerasinghe, N.**; Fried, S. D. E.; Eitel, A. R.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Allosteric Regulation of G-Protein–Coupled Receptor Rhodopsin by Soft Matter.

  The Sigma Xi Annual Meeting and Student Research Conference, online, Nov 05–08, 2020.

- **Weerasinghe, N.**; Fried, S. D. E.; Eitel, A. R.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Allosteric Regulation of GPCR Rhodopsin by Soft Matter.

  Signal transduction: From the genomic to the systems level: 3rd ERNEST Meeting, online, Oct 12–14, 2020.

- **Weerasinghe, N.**; Fried, S. D. E.; Eitel, A. R.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Role of Water and Lipids in G-Protein–Coupled Receptor Rhodopsin Activation.

  The Dr. GPCR Summit, online, Sep 14–18, 2020.

- **Weerasinghe, N.**; Fried, S. D. E.; Eitel, A. R.; Mann, H. F.; Cosgriff, M. L.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Modulation of GPCR Function by Membrane Lipids and Water.

  The American Society for Biochemistry and Molecular Biology (ASBMB) Annual Meeting and Experimental Biology Conference, San Diego, CA, Apr 04–07, 2020.

  The conference was canceled due to the COVID-19 outbreak. However, the talk was delivered through the Virtual Spotlight Session on 10 June 2020. DOI: https://doi.org/10.13140/RG.2.2.15794.63687

- **Weerasinghe, N.**; Perera, S. D. M. C.; Molugu, V. R.; Struts, A. V.; Brown, M. F., Rhodopsin Hydration Dynamics Studied by Solid-State Deuterium NMR Spectroscopy.

  63rd Annual Meeting of the Biophysical Society (BPS), Baltimore, MD, March 02–06, 2019.

- **Weerasinghe, N.**; Polaske, N., Initial Evaluation of Potential CrO_3 Alternatives for the GMS II Staining Kit.

  1st Monthly Group Meeting of the Chemistry and Analytical Methods Divisions, Roche Tissue Diagnostics Inc, Tucson, AZ, Dec 21, 2017.

- **Weerasinghe, N**., Novel Antibiotic Targets: Quorum Sensing and Two-Component Signal Transduction Pathways.

  The departmental seminar: Faculty of Chemistry, University of Colombo, Colombo, Sri Lanka, Jan 10, 2009.

Poster Presentations

- **Weerasinghe, N.**; Fried, S. D. E.; Eitel, A. R.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Solvation affects the conformational dynamics of GPCRs.

  The Dr. GPCR Summit, online, Oct 10–16, 2022.

- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Extent of Internal Hydration influence the Activation of GPCR Rhodopsin.

  Protein structure and biophysics III: The American Society for Biochemistry and Molecular Biology (ASBMB) Annual Meeting and Experimental Biology Conference, Philadelphia, PA, Apr 02–05, 2022.

- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Modulation of GPCR Rhodopsin Function by Membrane Lipids and Water.

  Receptors and Signal Transduction: General: American Society for Pharmacology and Experimental Therapeutics (ASPET) Annual Meeting and Experimental Biology Conference, Philadelphia, PA, Apr 02–05, 2022.

- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Hydration-Water and Membrane Lipids Modulate G-Protein-Coupled Receptor Activation.
  66th Annual Meeting of the BPS, San Francisco, CA, Feb 19–23, 2022.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Hydration Mediate the Activation of GPCRs.
  Protein Signaling- from mechanism to cellular function: The Copenhagen Bioscience Conferences, Copenhagen, Denmark, Nov 14-18, 2021.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Lipid Membrane and Protein Hydration Level Play a Critical Role in GPCR Activation.
  35th Anniversary Symposium of the Protein Society (TPS), online, Jul 7 - 9, 12 - 14, 2021.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Hydration Drives Activation of the G-Protein-Coupled Receptor Rhodopsin.
  FEBS 2021: The 45th FEBS Congress, online, Jul 3–8, 2021.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Hydration Drives Activation of the G-Protein-Coupled Receptor Rhodopsin.
  Joint Colloquium on G Protein-Coupled Receptors by ASPET, ASBMB, and APS: Evolving Insights from Pharmacology, Biochemistry, and Physiology, online, May 10–11, 2021.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Membrane Lipids and Cellular Water Modulate the G-Protein–Coupled Receptor Activation.
  Joint Colloquium on G Protein-Coupled Receptors by ASPET, ASBMB, and APS: Evolving Insights from Pharmacology, Biochemistry, and Physiology, online, May 10–11, 2021.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Hydration and Dehydration of GPCRs Play Critical Roles in Cellular Signal Transduction.
  The PDB50: A special symposium celebrating the 50th anniversary of the Protein Data Bank, online, May 4–5, 2021.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Hydration Drives Activation of the G-Protein-Coupled Receptor Rhodopsin.
  Protein Structure and Biophysics Poster Session: The American Society for Biochemistry and Molecular Biology (ASBMB) Annual Meeting and Experimental Biology Conference, online, Apr 27–30, 2021.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Membrane Lipids and Cellular Water Modulate the G-Protein–Coupled Receptor Activation.
  GPCR Poster Session: American Society for Pharmacology and Experimental Therapeutics (ASPET) Annual Meeting and Experimental Biology Conference, online, Apr 27–30, 2021.
- **Weerasinghe, N.**; Fried, S. D. E.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Solvation Drives G-Protein–Coupled Receptor Activation.
  65th Annual Meeting of the BPS, online, Feb 22–26, 2021.
- **Weerasinghe, N.**; Fried, S. D. E.; Eitel, A. R.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Allosteric Regulation of G-Protein–Coupled Receptor Rhodopsin by Soft Matter.
  The Sigma Xi Annual Meeting and Student Research Conference, online, Nov 05–08, 2020.
- **Weerasinghe, N.**; Fried, S. D. E.; Eitel, A. R.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Role of Soft Matter in G-Protein-Coupled Receptor Signaling.
  The ECR poster session: 2nd COMPARE online GPCR Symposium by Centre of Membrane Proteins and Receptors of the University of Birmingham and The University of Nottingham, online, Sep 29-Oct 1, 2020.

- **Weerasinghe, N.**; Fried, S. D. E.; Eitel, A. R.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Role of Water and Lipids in G-Protein-Coupled Receptor Rhodopsin Activation.

  Special poster session: 20th Great Lake GPCR retreat, online, Sep 18, 2020.

- **Weerasinghe, N.**; Fried, S. D. E.; Eitel, A. R.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Allosteric Regulation of GPCR Rhodopsin by Soft Matter.

  The ACS Fall Meeting and Expo, online, Aug 17–28, 2020.

- **Weerasinghe, N.**; Fried, S. D. E.; Eitel, A. R.; Mann, H. F.; Cosgriff, M. L.; Struts, A. V.; Perera, S. M. D. C.; Brown, M. F., Modulation of GPCR Function by Membrane Lipids and Water.

  The American Society for Biochemistry and Molecular Biology (ASBMB) Annual Meeting and Experimental Biology Conference, San Diego, CA, Apr 04–07, 2020.

  The conference was canceled due to the COVID-19 outbreak. However, the poster was presented on 26 June 2020 through a Virtual Twitter session sponsored by ASBMB

- **Weerasinghe N**, Perera, S. D. M. C., Molugu, V. R., Struts, A. V., and Brown, M. F., Functional Water Dynamics in Rhodopsin Using Solid-State Deuterium NMR Spectroscopy.

  The ASBMB Annual Meeting and Experimental Biology Conference; Apr 06–09, 2019; Orlando, FL.

- **Weerasinghe, N.**; Perera, S. D. M. C.; Molugu, V. R.; Struts, A. V.; Brown, M. F., Water Dynamics in the Hydration Shell of Rhodopsin.

  16th Annual BioPhest Conference, Phoenix, AZ, Mar 30, 2019.

- **Weerasinghe, N**.; Fried, S. D. E.; Perera, S. M. D. C.; Eitel, A. R.; Chawla, U.; Molugu, V. R.; Struts, A. V.; Brown, M. F., G-Protein–Coupled Receptor Activation Through Membrane Deformation.

  62nd Annual Meeting of the BPS, San Francisco, CA, Feb 17–21, 2018.

- **Weerasinghe, N**.; Fried, S. D. E.; Perera, S. M. D. C.; Chawla, U.; Struts, A. V.; Brown, M. F., Hydration Mediated G-Protein–Coupled Receptor Activation.

  The ASBMB Annual Meeting and Experimental Biology Conference, San Diego, CA, April 21–25, 2018.

- **Weerasinghe, N**.; Fried, S. D. E.; Perera, S. M. D. C.; Chawla, U.; Struts, A. V.; Brown, M. F., Hydration Modulated G-Protein–Coupled Receptor Activation.

  15th Biophest Symposium, Tucson, AZ, May 05, 2018.

- **Weerasinghe, N**.; Fried, S. D. E.; Orlinski, A. W.; Perera, S. M. D. C.; Brown, M. F., Influence of Lipid Bilayer on G-Protein Coupled Receptor Activation.

  14th Biophest Symposium, Phoenix, AZ, Apr 22, 2017.

- **Weerasinghe, N**.; Mendoza, M. F.; Bright, L. K.; Sousa, V. R.; Agasid, M. T.; Saavedra, S. S.; Aspinwall, C. A., Membrane Expression of D_2-K+ Ion Channel Coupled Receptor in HEK-293 Cells.

  1st Annual Chemistry and Biochemistry Research Symposium of University of Arizona, Tucson, AZ, Aug 15, 2014.

PROFESSIONAL SKILLS

Computer Skills:	Graphics software and tools	Adobe Illustrator, Biorender, Adobe Photoshop
	Image processing	ImageJ
	Molecular viewers	Pymol, VMD, Chimera
	Data visualization	MATLAB, R, Excel
	Programming	Python, LabVIEW
	Reference managers	Mendeley, Zotero, EndNote
	Presentation	PowerPoint
	3D Animation software	Maya with Molecular Maya plugin
	Molecular Editors	ChemDraw
	Word processor	MS Word
	Operation Systems	Windows and Linux
	Spectral data analyzing software	MestRenova
Processes & Techniques:	Mammalian cell culture	Media preparation, Subculturing, Cryopreservation, Reconstitution
	Protein expression	Mammalian expression
		Bacterial expression
		Cell-free expression
	Protein purification	Homogenization, Ultracentrifugation
		Sucrose gradient centrifugation
		Size exclusion chromatography
		Affinity chromatography
	Protein detection and quantification	Immunocytochemistry, Colorimetric assays, SDS-PAGE, Native-PAGE
	Wet chemical methods for quantification	Gravimetric analysis, Volumetric analysis
	Imaging	Calcium imaging
	Electrophysiological techniques	Patch-clamp recording
Instrumentation & Technologies:	Spectroscopy	FTIR and FTIR-ATR, Fluorescence spectroscopy
		Liquid and solid-state NMR
		UV-Vis spectrometry
		Dynamic light scattering (DLS)
	Spectroscopy	Atomic Emission Spectroscopy
		Atomic Absorption Spectroscopy
	Microscopy	Epifluorescence microscopy
		Confocal microscopy
	Separation	LC-MS, GC-MS, TLC, CE
		Standard, high-speed, and ultra-centrifugation
	Automated stainers/ scanners	Benchmark Special Stainer
		VENTANA iScan HT slide scanner
Languages:	English	Fluent
	Sinhalese	Native

CONTRIBUTIONS TO DIVERSITY AND ENVIRONMENTAL INCLUSION

- **Student Programs Committee member** 2022
  National Planning Committee (NPC), National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE)
- **Expanding Space in Astrophysics: APS Wiki Edit-a-thon** 10 Apr 2022
  Contributed to increasing the representation of women and individuals from underrepresented backgrounds on Wikipedia, focusing on their scientific contributions in astrophysics.
- **Abstract review** 2021
  Reviewing analytical chemistry-related abstracts submitted by undergraduate students for the NOBCChE nation conference.
- **Organizer, "Insight of Industry Insiders" Webinar** Mar 2021-May 2021
  Led the team to organize the inaugural webinar by SLAKE, discussing career preparation in the pharma and biotech industries.
- **Participant, Career Needs of International Physicists Focus Group** 31 Mar 2021
  Engaged in a group discussion organized by the American Physical Society (APS) to address the career needs of international physicists.
- **Leadership Team Member, Sri Lankan American Knowledge Exchange** May 2020–May 2022

  Facilitating the bidirectional flow of knowledge between the US and Sri Lanka, focusing on scientific knowledge to address socio-economic challenges in Sri Lanka. Actively working as SLAKE's liaison with Sri Lankan Students Associations (SLSAs) at various U.S. colleges and universities.
- **President, Astronomy & Space Study Center (ASSC), Sri Lanka** 2005
  Led Sri Lanka's foremost astronomical group, ASSC, in promoting astronomy and space science in the Sinhala language to thousands of teachers, students, and the public. Active member since 1997.

LEADERSHIP AND COMMUNITY SERVICE

- **A member of the Young Scientists Committee** 2021–Present
  At the American Society for Pharmacology and Experimental Therapeutics (ASPET)
- **A member of the Young Chemists Committee** 2021–Present
  for the Analytical Chemistry Division of the American Chemical Society (ACS)
- **Contributing writer for the news magazine ASBMB Today** 2021–Present
  from ASBMB
- **Contributing author and editor for Wikipedia** 2012–present
  on topics related to science, geography, history, and politics
- **Contributing author and editor for Quora** 2012–present
  on topics related to science, geography, history, and politics
- **Executive Council Member and Webmaster** 2021–Present
  The Southern Arizona Section of the American Chemical Society

- **A speaker at Fun Science Day with ASPET Juniors!** 10 Aug 2021
  Hosted by ASPET's Young Scientists Committee, this free virtual session is specifically designed to inspire and engage the next generation of scientists
- **A judge of the BPS 2021 Undergraduate Poster Award Competition (UPAC)** 22 Feb 2021
- **Translated Covid-19 infographics into the Sinhalese language** 2020
  (https://bit.ly/3apM3nc)

  Collaborated with IUBMB and Brianna Bibel from Cold Spring Harbor to translate the COVID-19 infographic prepared by Brianna into the Sinhalese language
- **Poster judge** 2017–present
  Judged multiple science fairs for high school and undergraduate students
- **Executive committee member of Arizona Universities Chapter of Biophysical Society** 2018-2019
  Organize various activities to promote biophysics as a discipline in UA and ASU since 2018
- **Treasurer and member of the Association of Sri Lankans of the University of Arizona (ASLUA)** 2013-Present
  A member since 2013 and held the office of treasurer from 2013 to 2015
  Led various cultural events and activities for the Sri Lankan community in Tucson, including the annual Sinhalese and Tamil New Year celebration
- **Secretary of Cosmopolitan Toastmasters Club in the Center for English as a Second Language at the University of Arizona** 2015
  As a secretary, assisted in various events and activities to promote club among the university students
- **A member of the Young Zoologist Society of Sri Lanka** 2010–2011
  Participate in environmental wildlife conservation projects to conserve Sri Lankan Elephants, Sea turtles, and Sri Lankan leopard populations

  Took part in awareness programs to the public to minimize accidents involving snake bites and provide them with knowledge of Sneak handling (Sri Lanka has one of the highest per capita snake-related deaths in the world)
- **Census Officer for Department of Census and Statistics of Sri Lanka** Apr 2011–May 2011
  Worked as a Census Officer for the enumeration stage of the 14th Census of Population and Housing of Sri Lanka
- **A member of the Chemical Society of the University of Colombo** 2009
  Participate in various activities to promote chemistry as a subject among undergraduate students. Organized "Vishwa Tharanga" 2008 Radio Broadcasting event
- **A member of the Art Circle, Faculty of science-University of Colombo** 2008–2010
  Volunteered at many events organized within the Faculty, such as organizing the Nature – 2008 Art Exhibition
- **The First-year and Second-Year Students Representative of the Botanical Society (Bot.Soc.)** 2005–2007
  Represented all the biological science students at the Botanical Society of the Dept. of Plant Sciences, University of Colombo

- **Census Officer for Department of Census and Statistics of Sri Lanka** Apr 2011–May 2011
  Worked as a Census Officer for the enumeration stage of the 14th Census of Population and Housing of Sri Lanka
- **A member of the Chemical Society of the University of Colombo** 2009
  Participate in various activities to promote chemistry as a subject among undergraduate students. Organized "Vishwa Tharanga" 2008 Radio Broadcasting event
- **A member of the Art Circle, Faculty of science-University of Colombo** 2008–2010
  Volunteered at many events organized within the Faculty, such as organizing the Nature – 2008 Art Exhibition
- **The First-year and Second-Year Students Representative of the Botanical Society (Bot.Soc.)** 2005–2007
  Represented all the biological science students at the Botanical Society of the Dept. of Plant Sciences, University of Colombo

PROFESSIONAL DEVELOPMENT

- **The 2nd Annual Transatlantic ECI Symposium** 6-7 Jul 2022
- **6th ERNEST meeting** 28-31st Mar 2022
  Building a Comprehensive Map of GPCR Signal Transduction
- **The Protein Society's 35th Anniversary Symposium** 7- 9 & 12-14 Jul 2021
- **The 1st Annual Transatlantic ECI Symposium** 08 Jul 2021
- **ASPET Focus on Pharmacology:** 23 Jun 2021
  Trainee Engagement in the Scientific Peer Review Process
- **Short, sweet, and straight to the point: Workshopping your science story** 22 Apr 2021
  ASBMB workshop
- **Career Development: Small group discussions with career speakers** 21 Apr 2021
  ASBMB workshop
- **Building Professional Relationships** 20 Apr 2021
  ASBMB workshop
- **Inserm Workshop 262 - Mass Spectrometry for Structural Biology** 07 Apr 2021
  Videoconference by the French National Institute of Health and Medical Research
- **NRMN Career Development Webinar:** Best Practices for Junior Investigators when Writing an NIH Research Grant Application 16 Mar 2021
- **The Diversifying Protein Science** 17 Nov 2020
  A webinar by The Protein Society
- **ASPET Focus on Pharmacology: Designing Science Presentations: Simple Principles That Can Allow for Great Impact on Audiences** 13 Nov 2020
  A workshop on how scientists can use simple principles of design to improve presentations and increase the impact on audiences

- **Growing-Equity, Inclusion, and Diversity for the Physics of Living Systems Graduate Student Networks** — 25-26 Oct 2020
  Organized by The Physics of Living Systems (PoLS) Student Research Network (SRN). Hosted by the Center for Theoretical Biological Physics at Rice University
- **Harvard Integrated Life Sciences PhD Open House** — 29 Oct 2020
- **UC Berkeley Graduate Diversity Admissions Fair 2020** — 22 Oct 2020
- **Future Ignited – Caltech** — 17 Oct 2020
  Organized by Caltech
  A conference on Ph.D. programs and opportunities at Caltech for students who are planning to enroll in chemistry, chemical engineering, biochemistry, molecular biophysics, and related areas
- **MIT ACCESS** — 15-16 Oct 2020
  Organized by MIT
  A workshop on graduate education and opportunities at MIT for qualified applicants to Ph.D. programs in chemistry, chemical engineering, and materials science
- **Membrane Transport Mini-Symposium for Early Career Scientists** — 25 Sep 2020
  Organized by BPS
- **The Cell Signaling in Cancer Conference: From Mechanisms to Therapy** — 21–22 Sep 2020
  Organized by FASEB
- **Lipid Research Division Weekly Seminar Series** — 09 Sep 2020–Present
  Organized by ASBMB
- **The Publons Academy** — 02 Sep 2020–Present
  A peer review training course from the Web of Science™ Group
  https://publons.com/community/academy
- **Introduction to Review Commons Webinar** — 08 Sep 2020
  The Review Commons is a platform for high-quality journal independent peer review in the life sciences
  https://www.reviewcommons.org
- **Share Your Research: How to Give a Good Talk** — 26 Jul–31 Aug 2020
  A 5-week course by iBiology that guides through the steps of creating and delivering a good research talk
  https://www.ibiology.org
- **Seeing 20/20: Lipids, Lipid-Soluble Molecules, and Metabolism in the Eye** — 27 Aug 2020
  A webinar by The Journal of Lipid Research (JLR)

- **NeuroMatch Academy Summer School** 13–31 Jul 2020

  Participated in a comprehensive three-week online summer school focused on computational neuroscience tools.

  Covered an extensive range of topics, including:
  Model Types and Modeling Practice
  Model Fitting and Machine Learning
  Dimensionality Reduction and Bayesian Statistics
  Linear Systems, Decision Making, and Optimal Control
  Reinforcement Learning, Real Neurons, and Dynamic Networks
  Network Causality and Deep Learning

  Gained valuable insights and hands-on experience in advanced computational methods applicable to neuroscience research.
  More information available at https://neuromatch.io/academy
- **American Physical Society (APS) National Meeting** 2020
- **ASBMB National Meeting** 2017–2021
- **Biophysical Society (BPS) National Meeting** 2017–2021
- **BioPhest Conference and Workshops** 2017–2019
  An annual event organized by the University of Arizona and Arizona State University to share research work carried out in biophysics

PROFESSIONAL AFFILIATIONS

- American Chemical Society (**ACS**) 2014–Present

  The Young Chemists Committee for the Analytical Chemistry Division 2021–Present

  The Southern Arizona Section of the American Chemical Society 2018–Present
- American Association for the Advancement of Science (**AAAS**) 2015–Present
- Biophysical Society (**BPS**) 2017–Present

  The executive committee of the Arizona Universities Chapter of the BPS 2019
- American Society for Biochemistry and Molecular Biology (**ASBMB**) 2018–Present
- Society for Experimental Biology and Medicine (**SEBM**) 2019–Present
- The Protein Society (**TPS**) 2020–Present
- American Physical Society (**APS**) 2020–Present
- Dr. GPCR Ecosystem 2020–Present
- American Society for Pharmacology and Experimental Therapeutics (**ASPET**) 2020–Present

  Young Scientists Committee 2021–2023
- Sigma Xi 2020–Present
- National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (**NOBCChE**) 2020–Present
- American Society for Cell Biology (**ASCB**) 2021–Present
- CA18133 - European Research Network on Signal Transduction (**ERNEST**) 2022–Present

REFERENCES

Victor J. Hruby, Regents Professor
Department of Chemistry and Biochemistry
1306 East University Boulevard
PO. Box 210041
University of Arizona
Tucson, AZ 85721 USA
Tel +1-(520) 621-6332
Email: hruby arizona.edu

Michael F. Brown, Professor
Department of Physics,
Department of Chemistry & Biochemistry
1306 East University Boulevard
University of Arizona
Tucson, Arizona 85721 USA
Tel: +1-520-621-2163
Email: mfbrown@arizona.edu

Mark D. Pagel, Professor and Deputy Chair
Department of Cancer Systems Imaging,
Division of Diagnostic Imaging,
The University of Texas MD Anderson Cancer Center
3SCR4.3642, Unit 1907
Houston, TX 77054-1901
Tel: +1-(713)-205-8515
Email: mdpagel@mdanderson.org

Nate Polaske, Ph.D., Senior Manager,
Corporate Strategy,
(Formerly at tissue Research & Early Development, Roche Tissue Diagnostics)
Illumina, Inc.
Email: npolaske@illumina.com