

Professional Summary

Scientist with experience in biomedical research and a passion for the business of science

As a scientist with a curious mind, I have contributed to many scientific projects ranging from Basic, Clinical, and Translational research in Alzheimer's, Parkinson's, Chronic diseases, and Multiple sclerosis. I have experience in drug repositioning, development, and mechanisms of action. I have a keen interest in how to protect and commercialize discoveries. I am passionate about science, medicine, business and investing.

Research Experiences

Graduate Research Assistant, 08/2018 – 10/2023 Supervisor: Maria E. Figueiredo-Pereira Ph.D.

City University of New York – New York, NY.

To Understand the molecular mechanism for epigenetic modulators such as histone deacetylase inhibitors to treat Alzheimer's disease (AD). Results from my project showed an epigenetic inhibitor drug a potential therapeutic for Alzheimer's disease. And may specifically improves symptoms in female but not males.

Clinical Research Assistant, 06/2016 – 03/2018 Supervisor: Edith Burns MD.

Medical College of Wisconsin – Milwaukee, WI.

I multitasked on the study design, recruitment, and administration of patient interviews in a cross-sectional study. My research assessed the relationship between multimorbidity, functional status, and patient illness perceptions among geriatric veteran patients attending outpatient appointments. Also conducted reviews, analyzed, and presented study findings.

Research Assistant, 08/2012 – 07/2014 Supervisor: Mark Cookson Ph.D.

National Institutes of Health, Institute of Aging- Rockville, MD.

Evaluated the role of Rab7L1 and LRRK2 interaction that contributes to Parkinson's disease pathology
Collected and analyzed biological data about relationships between genetic information and the pathways that lead to neuronal damage in Parkinson's disease. Interpreted research findings and summarized data into reports and presentations

Summer Research Assistant, 06/2011 – 08/2011 Supervisor: Lindy Holden-Dye Ph.D.

University of Southampton Highfields campus – Southampton, England.

Collaborated with team members to provide an essential benchmark for the broader deployment of emodepside Profender® as an anthelmintic treatment. Contributed to the first cross-phyla analysis of *C. elegans*, human and *Drosophila* slo/BK indicate a complex modulation of these Ca²⁺-activated K⁺ channels by anthelmintic drug emodepside.

Summer Research Assistant, 06/2010 – 08/2011 Supervisor: Marie Filbin Ph.D.

City University of New York Hunter College – Manhattan, New York

Studied the effect of blocking the Myelin Associated Glycoprotein (MAG) and Myelin-induced Schwann Cell Death in vitro. Showed that agents known to block MAG/myelin promoted the growth of neurons in vitro and can be repurposed for multiple sclerosis or spinal cord injury.

Venture Capital and Entrepreneurial Experiences

Black Venture Capital Consortium (BVCC) | BVCC Venture Capital Career Track Curriculum Fellow; Sept 19 2023 – Jan, 20 2024

I participated in a 10-week fellowship program with one of the world's leading VCs learning and gaining experience through real-world examples, mentoring and professional development. Selected to participate in the Winter Fellowship and work on the \$7.5 Million Fund student fund. Reviewed and evaluated numerous businesses and pitch decks, and sourced and screened companies for investment.

City University of New York- CUNY Startups | New Venture Accelerator Fellow; September 9 – October 15 2021

I worked with my team to develop a prototype of "Vercities," a platform to connect metro undergraduate and graduate students to create and share their college experiences. We developed the concept from an idea to a learning prototype – a prototype you can take to market to validate our business concept. We presented to Judges and ranked in the Top 5 out of the 18 teams that started the program.

Mount Sinai Innovation Partners (MSIP) | MSIP Fellow; October 7 – December 20 2021.

I evaluated an assigned Mount Sinai healthcare technology for potential commercialization by interfacing with the inventor and conducting a competitive analysis and technology due diligence. Wrote and Presented findings in a Decision Support Document/Deck. I completed a series of lectures covering many aspects of bringing scientific research into the marketplace.

HackFest NYC | HackFest Hackathon; April 26th- 27th 2019

Worked on a team as the business development lead, to develop a business case for a Web-based solution connecting exceptional but obscure charities to peers and donors. I presented the solution with my team to a panel of judges.

Additional Experiences

City University of New York, Hunter College| Adjunct Assistant Professor; Fall 2023 – Spring 2024

Employ various teaching methods, including dissections, presentations, and experiments, to instruct college students in the pre-health majors. I have taught classes in the biology (Anatomy & Physiology, Biological Chemistry).

Morrison & Foerster LLP – Virtual Courses Participant; September - October 2021 & Jan – March 2022

I attended and participated in the virtual course and workshop on Life science Intellectual Property strategies: a 6-week Patent law Course and a 10-week Advanced Topics in Patent Law.

New York University Langone Health Postdoctoral Affairs | Project Management; March 17 - April 21, 2021

Thirty-five hours of instruction in Project Management Series covering core competency on systematic methods for defining, organizing, planning, and implementing work. I have demonstrated project management knowledge using my own Ph.D. research project.

Publications

1. Chaudry O, Ndukwe K, Xie L, Figueiredo-Pereira M, Serrano P, Rockwell P. Females exhibit higher GluA2 levels and outperform males in active place avoidance despite increased amyloid plaques in TgF344-Alzheimer's rats. *Sci Rep*. 2022 Nov 9;12(1):19129. doi: 10.1038/s41598-022-23801-w
2. Santarriaga S, Petersen A, Ndukwe K, Brandt A, Gerges N, Bruns Scaglione J, Scaglione KM. The Social Amoeba *Dictyostelium discoideum* Is Highly Resistant to Polyglutamine Aggregation. *J Biol Chem*. 2015 Oct 16;290(42):25571-8doi: 10.1074/jbc.M115.676247.
3. Langston RG, Rudenko IN, Kumaran R, Hauser DN, Kaganovich A, Ponce LB, Mamais A, Ndukwe K, Dillman AA, Al-Saif AM, Beilina A, Cookson MR. Differences in Stability, Activity and Mutation Effects Between Human and Mouse Leucine-Rich Repeat Kinase 2. *Neurochem Res*. 2019 Jun;44(6):1446-1459. doi: 10.1007/s11064-018-2650-4.
4. Rudenko IN, Kaganovich A, Langston RG, Beilina A, Ndukwe K, Kumaran R, Dillman AA, Chia R, Cookson MR. The G2385R risk factor for Parkinson's disease enhances CHIP-dependent intracellular degradation of LRRK2. *Biochem J*. 2017 Apr 24;474(9):1547-1558. doi: 10.1042/BCJ20160909.
5. Beilina A, Rudenko IN, Kaganovich A, Civiero L, Chau H, Kalia SK, Kalia LV, Lobbestael E, Chia R, Ndukwe K, Ding J, Nalls MA; International Parkinson's Disease Genomics Consortium; North American Brain Expression Consortium; Olszewski M, Hauser DN, Kumaran R, Lozano AM, Baekelandt V, Greene LE, Taymans JM, Greggio E, Cookson MR. Unbiased screen for interactors of leucine-rich repeat kinase 2 supports a common pathway for sporadic and familial Parkinson disease. *Proc Natl Acad Sci U S A*. 2014 February 18;111(7):2626-31. doi: 10.1073/pnas.1318306111.
6. Crisford A, Ebbinghaus-Kintscher U, Schoenhense E, Harder A, Raming K, O'Kelly I, Ndukwe K, O'Connor V, Walker RJ, Holden-Dye L. The Cyclooctadepsipeptide Anthelmintic Emodepside Differentially Modulates Nematode, Insect and Human Calcium-Activated Potassium (SLO) Channel Alpha Subunits. *PLoS Negl Trop Dis*. 2015 Oct 5;9(10):e0004062. doi: 10.1371/journal.pntd.0004062.

Education

Doctor of Philosophy (PhD), Neuroscience | The Graduate Center, City University of New York– Hunter College – Manhattan, NY

Master of Science (MS), Clinical & Translational Science | Medical College of Wisconsin- School of Medicine – Milwaukee, WI

Bachelor of Arts, Biology | City University of New York– Lehman College– Bronx, NY

Certifications & Courses

NIH FAES (Foundation for the Advanced Education in the Science) | Biomedical Translation and Commercialization

Credential Badge: Market Assessment for Innovative Technologies, Biomedical Business Development for Scientists, Introduction to Technology Transfer

New York University Langone Health Postdoctoral Affairs | Project Management Course Certificate