

222 Hoeffner Science and
Technology Center
200 Prospect St.
East Stroudsburg, PA, 18301

EDUCATIONAL PROFILE

University of Buea
Auburn University

Microbiology and Parasitology
Biochemistry

B.Sc. July 2010
Ph.D. August 2018

APPOINTMENT

Assistant professor of Biochemistry East Stroudsburg University of Pennsylvania 2018 -

PUBLICATIONS

1. Petsche, E; Fuanta, N.R. Profiling and mode of action of inhibitors on Methionine amino peptidase A (MAP A). *Manuscript in preparation*.
2. Fuanta, N.R.; Simithy, J.; Skinner, M.; Gill, G.; Childers, T.; Calderon, A.I.; Goodwin, D.C. A fluorescence approach for mechanistic evaluation of tuberculosis shikimate kinase inhibitors. *Manuscript in preparation*.
3. Simithy, J.; Fuanta, N.R.; Kochanowska-Karamyan, A.; Hamann, M.T.; Goodwin, D.C.; Calderón, A.I. Irreversible inhibition of recombinant *Mycobacterium tuberculosis* shikimate kinase by the marine sponge metabolite ilimaquinone. *BBA- Proteins and Proteomics*, 2018 5(6), 731-739.
4. Simithy, J.; Fuanta, N.R.; Alturki, M.; Hobrath, J.V.; Wahba, A.E.; Rath, J.; Hamann, M.T.; DeRuiter, J.; Goodwin, D.C.; Calderón, A.I. Slow, tight-binding inhibition of *Mycobacterium tuberculosis* shikimate kinase by manzamine alkaloids. *ACS Biochemistry*, 2018 57(32), 4923-4933.
5. Alturki, M. S; Fuanta, N.R.; Jarard, M. A.; Hobrath, J.V.; Goodwin, D. C.; Rants'o T.A.; Calderón, A. I. A multifaceted approach to identify non-specific enzyme inhibition: Application to *Mycobacterium tuberculosis* shikimate kinase. *Bioorganic & Medicinal Chemistry Letters*, 2018, 28 (4), 802-808
6. McCarty, S.E.; Schellenberger, A.; Goodwin, D.C.; Fuanta, N.R.; Tekwani, B.L.; Calderón, A.I. *Plasmodium falciparum* Thioredoxin Reductase (PfTrxR) and Its Role as a Target for New Antimalarial Discovery. *Molecules* 2015, 20, 11459-11473.
7. Kudalkar, S.N.; Njuma, O.J; Li, Y.; Muldowney, M.; Fuanta, N.R.; Goodwin, D.C. A Role for Catalase-Peroxidase Large Loop 2 Revealed by Deletion Mutagenesis: Control of Active Site Water and Ferric Enzyme Reactivity. *Biochemistry*, 2015, 54 (8), 1648–1662

RESEARCH LEADERSHIP

Awards

1) Faculty Professional and Development Council	\$8,000	Screening antitubercular agents	PI	2021-2022
2) Instrument purchase proposal – UV-vis, others	\$62,000	Protein characterization	PI	2021
3) ESU Foundaton	\$1000	-	PI	2020 - 2021
4) Instrument purchase proposal – LCMS	\$465,000	High throughput screening	PI	2018

Projects

5) Mechanism of bacterial kinase enzymes			PI	
6) Screening inhibitors against essential bacterial proteins			PI	

LEADERSHIP AND PROFESSIONALISM: SYNERGISTIC ACTIVITIES

- 1) Reviewer for scientific journals including ACS infectious diseases, Biochimica et Biophysica Acta – Proteins and Proteomics, Biomolecules, etc.
- 2) Director-at-large Pennsylvania Academy of Science (PAS). Member of the organizing committee for the annual PAS conference. Review students’ grant proposals awarded at the end of the meeting.
- 3) Organization – communications and awards team for NOBCChE (National Organization for the Professional Advancement of Black Chemists and Chemical Engineers) national meeting
- 4) Grant reviewer for faculty development research. Review grants from peers in preparation for submission to campus, local, and national funding agencies.
- 5) Developing biochemistry CURE (Course-based Undergraduate Research Experience) in proteins and nucleic acids – promoting hands-on research experience to biochemistry majors [traditional and non-traditional] at ESU.

COMMITMENT TO DIVERSITY AND INCLUSIVENESS

- 1) Reached out to various department chairs in colleges around the nation, encouraging them to send students to NOBCChE national meeting.
- 2) ESU’s Frederick Douglass Institute Executive Board – promoting faculty diversity on campus
- 3) Panelist on Auburn University's International students' webinar on ‘What next after graduation? OPT and career plans’ – providing tips on navigating the job market, applying for optional training, and shared experience.
- 4) Destination STEM – performed science demos to middle school students in underserved communities to spur their interest in science.

MENTORING

Students	Current position
Anand Motilall	Analytical chemist, SANOFI Pasteur (2019)
Ronald Adukure	Ph.D. student at University of Rochester (2020)
Dane Santa	Ph.D. student at Lehigh University (2021)
Walter Espinoza	Ph.D. student at Lehigh University (2021)
Emily Petsche	M.S student University of Scranton (2021)
Ibtisam Ibtisam	PhD. Student Pharmacology and medicinal chemistry

FELLOWSHIPS, HONORS

ASBMB Education Fellow	2019
Cellular and Molecular Biology fellow	2017

MAJOR CAREER CONTRIBUTION AND LEGACY

- 1) Developed a CURE system to expose undergraduate seniors to independent research
- 2) Supported the advancement and scientific improvement of a younger cadre scientists using the NOBCChE platform.