

SHUBHADA BHAMRE

CAREER OBJECTIVE: Hardworking professional with 21+ years of experience in education and proven knowledge of course design, content knowledge, curriculum development and classroom management. Excellent communication skills with students, parents and educators and at conferences & workshops. Ability to handle diverse group of adults and multitask. Assess situations and take appropriate steps to solve issues. Scientific research and publications with synthesizing and organizing content into an easily comprehensible format. Looking to apply these skill sets to approach problems to solve efficiently in any required field.

WORK EXPERIENCE and SKILLS

Biology teacher (Grades 10-12) | *Plum Senior High School, Pittsburgh, PA* August 2003 – 2023

- Developed & implemented curriculum for Introductory Forensic Science, Microbiology, Biochemistry and Bioinformatics.
- Develop and implement differentiated instruction for high school students in forensic science and advanced placement (AP) biology courses
- Create a positive classroom environment in which students were encouraged to ask for assistance during their learning process and engage in all aspects of the material
- Integrate science-specific technology into the classroom such as virtual simulations, laboratory equipment, and online demonstrations
- Collaborate with school guidance counselors, special education teachers and gifted coordinator to discuss and generate solutions that support the success and well-being of all students
- Fluent in Google classroom, Google meets, Zoom, PowerPoint, Sapphire Management System and Jam Board
- Designed curriculum for forensic science, microbiology, and biochemistry electives courses
- Held a professional development session on inquiry learning on DNA fingerprinting for school teachers (2010)
- Submitted and presented a session on mutations at NABT (National Association for Biology Teachers) (2014)
- Organized and conducted PASC (Pennsylvania Association for Science Curriculum) annual conference at my school district (2015)
- Held a professional development session on WIS (What I see?) & WIM (What I mean?) concept of scientific method for school teachers (2017)
- Submitted and presented a session at PASC (Pennsylvania Science Curriculum Council) on Post-COVID Remediation, Reengagement & Reteaching skills (2021)

Elementary Science teacher | *Corona School, Lagos, Nigeria* August 1982 – May 1983

- Taught science for grades 1 & 2
- Focused on using nature to motivate students to analyze living and nonliving things and come up with their own ideas on the need of these components for survival.

EDUCATION

University of Pittsburgh (Pittsburgh, PA)

PY-2 Certification: Biology

University of Bangalore (NIMHANS)

PhD in Neuroscience

University of Pune (India)

Masters in Developmental Biology

Masters in Developmental and Molecular Biology

Bachelors in Biology

PROFESSIONAL DEVELOPMENT & LEADERSHIP

- **2020 & 2022:** Selected to *mentor students* during summer camp for the Wildlife Leadership Academy program (Lock Haven, PA).

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- **2020:** Selected and attended a 3-month afterschool professional development session on *PBL* (Project Based Learning) and received a *grant to implement* in my classroom.
- **2020 - Present:** Invited to work & currently working with *PA Department of Education* on *redesigning Life Science standards*, as well working with local IU to *generate plans and a repository to help teachers implement the new standards*.
- **2007 - Present:** Member of the executive committee for PASCC (Pennsylvania Association for Science Curriculum), conduct *yearly workshops for teachers in the region*.
- **2019-2020:** Selected and attended Research Experience for Teachers at University of Pittsburgh Human Engineering Research Laboratories. Worked with my team to *design an ergonomic contraption for a child in a wheelchair*. Our team received the *first prize and received a grant to implement the project in the classroom as well as a 3-D printer*.
- **July 2019:** Selected & Attended Bioinformatics workshop at supercomputing center at Carnegie Mellon University (CMU). Introduced the concept in AP classroom.
- **2015 - Present:** Invited and served as an AP (Advanced Placement) *Biology reader* by the AP Board & ETS (Education Testing Services)
- **2016 – Present:** Selected & attended AP Biology reader by AP Board and ETS.
- **July 2014:** *Presented a session on genetic mutations at NABT* (National association for Biology Teachers).
- **June 2014 and 2015:** Accepted to attend and be part of the *AP Biology Leadership Academy* conducted by *BSCS* (Biological Science Curriculum Study) and NABT, a two-year cohort.
- **June 2014:** Attended workshop on Bioinformatics at the supercomputing center of CMU.
- **July 2012:** Attended *Phage Hunting workshop* hosted by the Department of Biological Science University of Pittsburgh.
- **June 2012:** Attended Genetics workshop conducted by AIU (Allegheny Intermediate Unit) 3.
- **June 2012:** Attended a Material science Engineering internship at CMU, and *wrote a module on Biomolecular science, which received a grant*.
- **2009 - Present:** work with DRC (Data Recognition Corporation) & PDE (Pennsylvania Department of Education) on *Biology Keystone exam, review, and item assessments*.
- **July 2007:** “CMIST-II”, Carnegie Mellon Center for School Outreach
- **August 2007:** “BEST”, Carnegie Mellon Center for School Outreach.
- **May 2007:** “Computation and Science for Teachers (CAST)”, Supercomputing Center of Pittsburgh.
- **August 2005:** “Computing for Biologists” University of Pittsburgh.
- **March 2004:** “DNA Day 2004”, Carnegie Science Center.
- **August 2003:** DNA techniques”, University of Pittsburgh.
- **June 2003:** “Bioethics”, Allegheny General Hospital.
- **March 2003:** “NSTA”, Convention.

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PUBLICATIONS

1. **Bhamre, S** and Ravindranath, V. Presence of flavin containing monoxygenase in rat brain. *Biochemical Pharmacology*, 42, 442-444 (1991).
2. **Bhamre, S.**, Anandatheerathavarada, H.K., Shankar, S.K. and Ravindranath, V. Microsomal cytochrome P-450 in human brain regions. *Biochemical Pharmacology*, 44, 1223-1225 (1992).
3. **Bhamre, S.**, Shankar, S.K., Bhagwat, S. and Ravindranath, V. Catalytic activity and immunohistochemical localization of flavin containing monoxygenase in rat kidney. *Life Science*, 52,1601-1607 (1993).
4. **Bhamre, S.**, Anandatheerathavarada, H.K., Shankar, S.K., Boyd, M.R. and Ravindranath, V. Purification of multiple forms of cytochrome P-450 from a human brain and reconstitution of catalytic activities. *Archives of Biochemistry & Biophysics*, 301, 251-255 (1993).
5. Anandatheerathavarada, H.K., Shankar, S.K., **Bhamre, S.**, Boyd, M.R., Song, B.J. and Ravindranath, V. Induction of brain cytochrome P-450IIE1 by chronic ethanol treatment. *Brain.Research*, 601, 279-285 (1993).
6. **Bhamre, S.**, Bhagwat, S., Shankar, S.K., Williams, D.E. and Ravindranath, V. Cerebral flavin containing monoxygenase mediated metabolism of antidepressants in brain; Immunochemical properties and immunocytochemical localization. *Journal of Pharmacology & Experimental Therapeutics*, 267, 555-559 (1993).
7. **Bhamre, S** and Ravindranath, V. Rat brains flavin containing monoxygenase: catalytic activity and sex-related differences. *NIMHANS Journal*, 11, 99-106 (1993).
8. **Bhamre, S.**, Bhagwat, S., Shankar, S.K., Boyd, M.R. and Ravindranath, V. Flavin containing monoxygenase mediated metabolism of psychoactive drugs by human brain. *Brain Research*, 672, 276-280 (1995).
9. Ravindranath, V., **Bhamre, S.**, Bhagwat, S.V., Anandatheerathavarada, H.K., Shankar, S.K and Tirumalai, P.S. Xenobiotic metabolism in brain (Review). *Toxicology Letters*, 82-83, 633-638 (1995).
10. Bhagwat,S., **Bhamre, and S .**, Boyd, M.R. and Ravindranath, V. Further characterization of rat brain flavin-containing monoxygenase: metabolism of imipramine to it is N-oxide. *Biochemical Pharmacology*, 51, 1469-1475 (1996).
11. Bhagwat,S., **Bhamre, S .**, Boyd,M.R., and Ravindranath, V. Cerebral metabolism of imipramine and a purified flavin-containing monoxygenase from human brain. *Neuropsychopharmacology*, 15,135-142 (1996).
12. Tirumalai, P.S., **Bhamre, S.**, Shankar, S.K., Boyd, M.R. and Ravindranath, V. Expression cytochrome P-450 2B in rat brain regions: induction by Phenobarbital and localization by insitu hybridization. *Biochemical Pharmacology*, 56, 371-375, (1997).
13. **Bhamre, S.**, Wang, H-Y. and Friedman, E. Receptor mediated palmitoylation and depalmitoylation of G α subunits in rat cortical membranes . *JPET*, 286, 1482-1489 (1998).
14. **Bhamre, S.**, Wang, H-Y. and Friedman, E. Serotonin mediated palmitoylation of G α q results in increased PI hydrolysis in rat cortical membranes. (*In preparation*).
15. **Bhamre, S.**, Wang, H-Y. and Friedman, E. Effect of Lithium on serotonin induced palmitoylation and depalmitoylation of G α subunits. (*In preparation*).

ABSTRACTS PRESENTED

1. Tirumalai, P., **Bhamre, S.**, Boyd, M, R., Koslow, S, H. and Ravindarnath, V. Expression and regulation of multiple forms of cytochrome P-450 in rat and human brain. *26th Annual meeting of Society of NeuroSciences*, 1996.
2. **Bhamre, S.**, Kung, H, E. and Frazer, A. Irreversible blockade of 5-HT1A receptor in vitro by a selective alkylating agent. *25th Annual meeting of Society of NeuroSciences*, 1995.
3. **Bhamre, S** and Ravindranath, V.Flavin-containing monoxygenase activities in rat brain. *At the Pharmacological Society of India*, 1989.