

MARY EVANS

✉ Address City, State Zip ☎ Phone 📧 E-mail

ASSISTANT PROFESSOR

Highly talented medical professional with broad experience in delivering creative and innovative concepts accurately. Proven history of success in creating knowledge-based educational and examination materials and various educational programs. Demonstrated exceptional communication, collaboration, and relationship-management capabilities; accustomed to establishing rapport with students and various academic professionals.

Key Strengths

- Neuroscience Research & Teaching
- Innovative Curriculum
- Mentoring & Motivation
- Cultural Sensitivity
- Committee & In-Service Leadership
- Creative Problem Solving
- Hands-On Instruction
- Student Assessment
- Standardized Testing / Scoring
- Strong Presentation Skills

EDUCATION & OTHER CREDENTIALS

Postdoctoral Fellow 2006-2008

Brookhaven National Laboratory, Upton, NY

Project: Neurobiology of brain development in normal and pathologic condition

Mentor: F. Avraham Dilmanian, Ph.D.

Doctor of Medicine Program 1992-1994

Wake Forest University, Winston-Salem, NC

Excellent performance in United State Medical License Examination Step I

Doctor of Philosophy in Physiology 1986-1991

University of California, Berkeley, CA

Dissertation topic: Role of thyroid hormone in development of peripheral nervous system

Advisor: Paola S. Timiras, MD, Ph.D.

Master of Science in Analytical Chemistry 1981-1983

University of California, San Francisco, CA

Thesis: High Pressure Liquid Chromatography assay of Clonazepam, an “anti-epileptic drug”, in human serum

Advisor: Poka M. Kabra, Ph.D.

CAREER HISTORY

Teaching Experience

Stony Brook University • Stony Brook, NY 2006-2008

Instructor, Department of Neurobiology and Behavior

- Taught upper division course to a group consisted of 20 students.
- Designed, developed, and implemented a course in functional Neuroanatomy and Neuroimaging.
- Provided lectures, recruited guest speakers, and supervised one teaching assistant.
- Advised students, wrote examinations, and oversaw group projects.

University of Pittsburgh • Pittsburgh, PA
Instructor, Department of Radiology

1998-2004

- Enhanced the curriculum and instructed Physiology and laboratory proficiency to graduate students.
- Coordinated and managed regular seminar and journal club for graduate students.
- Demonstrated small animal surgery for Magnetic Resonance Imaging.
- Exhibited customary quality control process to junior staff and students.

University of California • Berkeley, CA
Teaching Assistant

1987-1991

Department of Physiology

- Rated excellent for expertise in presenting creative and innovative concepts clearly and establishing rapport with students.
- Worked collaboratively with course directors in developing examination materials and graded courses.
- Conducted Cell Biology and laboratory demonstrations.
- Authored laboratory exercise and manual.

Department of Biology

- Oversaw 30 students in an Introductory Biology course of 300 students.
- Outlined and delivered laboratory exercises to 30 students per semester.

Department of Anatomy

- Performed and demonstrated cadaver dissection and other related laboratory practices.
- Rendered histology laboratory instruction.

Research Experience

Brookhaven National Laboratory • Upton, New York
Research Fellowship

2006-2008

Project: Neuroendocrinology of attention deficit/hyperactivity disorders and autism. Performed quantitative autoradiography of brain neurotransmitters in animal models of ADHD.

- Correlated neurotransmitter alterations with behavioral and developmental disorders. Developed a Magnetic Resonance Imaging technique to assess neurotransmitter function. Mapped cortical and subcortical pathways of developmental disorders using PET, CT scan, and quantitative autoradiography.

MRI Center, University of Pittsburgh • Pittsburgh, PA
Research Specialist

1998-2004

Project: Use of sodium MRI for the assessment of tissue viability during evolving focal ischemia. Characterized the time dependent changes in tissue sodium concentration (TSC) that ensue upon the development of focal brain ischemia in non-human primates.

- Played an integral role in image acquisition, analysis, and data management. Devised an accurate and dependable assay approach of sodium in brain tissue. Induced cerebrovascular ischemia in specific brain area using specialized surgery.

Pittsburgh Tissue Engineering Initiative
Project Manager

1995-1998

Project: Development of next generation of biomaterial for medical application. Ensured proper coordination of workforce to guarantee efficient and cost-effective operation.

- Negotiated cost-cutting collaborative agreement. Wrote grants applications to attract funding.

Stanford University - Stanford, CA†
Project Manager, Department of Ophthalmology

1992

Project: Effect of age on drug penetration in the eye. Managed a 4-month project at Stanford Veteran Hospital. Planned and led the implementation of experiment, data collection, and analysis.

- Recruited and scheduled volunteers for the investigation. Executed the experiment and obtained results. Analyzed and published result in scientific journal.

Technical Experience

- **Molecular genetics:** cDNA subcloning, gene transfer and protein expression analysis, RNA expression analysis, reverse-transcriptase polymerase chain reaction (RT-PCR), in situ hybridization with immunochemical detection of hybridized probe.
- **Neuroimaging:** Develop a Magnetic Resonance Imaging technique to assess neurotransmitter function. Map cortical and subcortical pathways of developmental disorders using PET, CT scan and quantitative autoradiography.
- **Electrophysiology:** Setting-up and running of multi-electrode array or other electrophysiological experiments, Preparing and maintaining hippocampal slices or other neuronal cells. Dissection of embryonic rodent brains and culturing of hippocampal neurons.
- **Neurochemistry:** Identification and characterization of the neurotransmitters, neuromodulators, receptors, and second messengers. Immunocytochemistry and fluorescent imaging of cultured cell lines and primary neurons, morphological analysis using fluorescent and confocal microscopy.

AWARDS & HONORS

- **Sanorff Award**, one-year merit based award for proposal excellence 1994
- **Fight for Sight Award**, division of National Association to prevent Blindness 1992
- **Deans Fellowship**, for exhibiting academic excellence at University of California, Berkeley 1989
- **Elizabeth Roboz Einstein Award in Neuroscience**, University of California, Berkeley 1988
Merit based for research excellence in developmental neuroscience
- **Graduate Opportunity Fellowship**, University of California, Berkeley 1985-1988
Three-year merit-based fellowship

PUBLICATIONS

- Nzekwe, E.U, Beigon A. and Benveniste H.A. Quantitative autoradiography of norepinephrine transporters in hypothyroidism. J. Neurochem. (2008) in prep.
- Nzekwe, E.U, Beigon A. and Benveniste H.A. Comparative distribution of dopaminergic receptors in the prefrontal cortex in hypothyroidism and ADHD. Brain Research (2008) in prep

- Nzekwe, E.U. and Maurice, D., Effect of age on the penetration of topical fluorecein. J. Ocular Pharmacol (1994) 10: 521 - 523
- Timiras, P.S. and Nzekwe, E.U. Thyroid Hormones and Nervous system development. Biol. Neonate (1989) 55: 375-385
- Nzekwe, E. U., and Timiras, P.S. Tyrosine hydroxylase induction in normal and neoplastic chromaffin cells Am. Soc Proc (1989) 20:172
- Nzekwe, E.U. Catala, M.D., Timiras, P.S., Adrenal Catecholamines in hypothyroidism and rehabilitation. FASEB. (1987) 46: 1126
- Kabra PM and Nzekwe, E.U., Liquid Chromatographic Analysis of Clonazepam in Human serum with solid-phase (Bond-Elut) extraction. J. Chromatogr.(1985) 341: 383-390

Presentations

- Nzekwe, E.U., Lai, J.O., and Timiras P.S. Effect of nerve growth factor and triiodothyronine on tyrosine hydroxylase activity in adrenal chromaffin cells. Western Regional Conference on Comparative Endocrinology (1988) 18 (52)
- Nzekwe, E.U., Catala, M.D., Timiras, P.S. Effect of hypothyroidism on postnatal development of catecholamines. Western Regional Conference on Comparative Endocrinology 17 (13) 1987
- Nzekwe, E. U., and Timiras, P.S. Tyrosine hydroxylase induction in normal and neoplastic chromaffin cells Am. Soc Proc (1989) 20:172

COMMUNITY INVOLVEMENT

University of Pittsburgh • Pittsburgh, PA

Scientist Volunteer, High School Outreach Program

1998-2004

- Developed and led hands-on activities to encourage career in biomedical sciences.
- Practiced strategies to promote retention of students in school.

University of California • Berkeley, CA

Mentorship, Minority Access to Research Career Program

1986-1990

- Designed experiment and taught laboratory skills to students.
- Prepared students for research presentations.