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Elizabeth Lomokey Pobe, Pharm

PhD Student · Biomedical Sciences · Forensic Toxicology

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Education

- **PhD, Biomedical Sciences | 2023 – Present**
Marche Polytechnic University, Italy
- **PhD, Human Anatomy & Forensic Science | 2020 –**
KNUST, Ghana
- **MPhil, Forensic Science | 2017 – 2019**
KNUST, Ghana
- **Bachelor of Pharmacy (B. Pharm) | 2011 – 2015**
KNUST, Ghana

Professional Experience

Visiting researcher

Linköping University | September 2026–now

- Conducting laboratory-based research investigating 5-HT_{2A} receptor activity in response to cathinones and tryptamines.
- Performing cell-based assays to characterize the pharmacological effects and receptor-mediated activity of psychoactive compounds.
- Investigating the metabolism of selected compounds using hepatocyte models.
- Performing sample preparation and analytical analysis using QTOF-HPLC to characterize and identify metabolites.
- Applying techniques in cell culture, pharmacology, metabolism studies, and analytical chemistry.
- Analyzing and interpreting experimental data to investigate structure–activity relationships and metabolic profiles of emerging psychoactive substance

Routine Laboratory Analysis

Marche polytechnic university | 2024–now

- Conduct routine sample preparation, extraction, and purification using validated protocols.
- Perform qualitative and quantitative analysis using LC-MS/MS, GC-MS, and high-resolution mass spectrometry.
- Operate, calibrate, and maintain analytical instruments while ensuring compliance with QA/GLP standards.
- Analyse chromatographic and spectral data, prepare calibration curves, and document results accurately.
- Support method development, experiment design, and troubleshooting for ongoing research projects.
- Maintain laboratory safety, manage documentation, and train students on routine analytical techniques.

Medical Representative

Exeter Pharmaceuticals (Ernest Chemist Ltd.) | 2022–2023

- Promoted pharmaceutical products to physicians, pharmacists, and healthcare facilities.
- Conducted product presentations and scientific detailing to improve prescription uptake.
- Built and maintained strong relationships with healthcare providers across assigned territories.
- Analysed sales trends and competition to support strategic decision-making.
- Ensured proper pharmacovigilance reporting and compliance with regulatory guidelines.
- Collaborated with marketing teams to plan outreach campaigns and product launches.

Locum Pharmacist

Ernest Chemist Ltd. | 2017–2022

- Dispensed medications accurately in line with national regulations and clinical guidelines.
- Counselling patients on medication use, drug interactions, and therapeutic outcomes.
- Conducted medication reviews and recommended evidence-based alternatives when needed.
- Managed inventory, stock rotation, and controlled substances in compliance with SOPs.

- Provided health education on chronic disease management and lifestyle modification.
- Supported pharmacovigilance by identifying and reporting adverse drug reactions.

Intern Forensic Toxicologist

Ghana Standards Authority | 2019

- Assisted with toxicology sample preparation, extraction, and wet-lab analysis.
- Participated in instrument operation including GC-MS/LC-MS under supervision.
- Performed qualitative and quantitative analysis of forensic case samples.
- Assisted in drafting technical reports for legal and regulatory purposes.
- Supported method validation activities and standard operating procedure development.
- Maintained laboratory quality assurance and documentation in compliance with ISO standards.

Lecturer

Phersons Health College | 2016–2017

- Taught pharmacy- and health-related courses to diploma and certificate-level students.
- Developed lesson plans, assessments, and practical demonstrations.
- Supervised student laboratory sessions, ensuring safety and proper technique.
- Mentored students academically and guided them through final projects.
- Collaborated with faculty to improve curriculum delivery and course structure.
- Organized academic seminars and health outreach activities.

Publications

- Identification of Alexamorelin Consumption Biomarkers Using Human Hepatocyte Incubations and High-Resolution Mass Spectrometry.

Research Experience

- Is “Levamisole” always levamisole in adulterated cocaine? Answer through enantioselective high-performance liquid chromatography and supercritical fluid chromatography coupled with tandem mass spectrometry.
- Human hepatocyte incubations and metabolite identifications.
- Biomarkers for alkaloid-based psychoactive plant substances.
- Screening and mechanistic evaluation of psychoactive compounds from Ghanaian medicinal herbs.
- Screening and mechanistic studies on antitumor compounds from Ghanaian medicinal herbs.

- Energy drink consumption patterns and physiological effects among commercial drivers in Kumasi, Ghana.
- Quantification of ascorbic acid at various fruit maturity stages and temperatures in blood oranges.

Research & Technical Skills

- Cell culture and cell-based assays, 5-HT_{2A} receptor pharmacology, cathinone and tryptamine research, hepatocyte-based metabolism studies, and QTOF-HPLC analysis for metabolite identification and characterization.
- High-resolution mass spectrometry (LC-HRMS, metabolite identification)
- Forensic toxicology analysis & method development
- Pharmacokinetics & cannabinoid agonist research
- Chromatographic techniques (column work, TLC, extraction)
- Sample preparation & analytical method validation
- Data interpretation, reporting & scientific writing

Professional Memberships

- International Association of Forensic Toxicologists (TIAFT)
- Society of Forensic Toxicology (SOFT)
- Ghana Academy of Forensic Science
- Pharmaceutical Society of Ghana

Volunteer Activities

- Treasurer, Planned Parenthood Association of Ghana (PPAG), Kumasi Branch
- Sponsorship Committee Head, Spot Stroke Foundation Ghana (Kumasi)

Honours and Awards

- Huestis and Smith SOFT travel grant award.
- Nominated for the TIAFT Young Scientist Award, The International Association of Forensic Toxicologists (TIAFT), [2026]
- Nominated for the Dal Cortivo Award & Educational Research Award (ERA), [2026]

Research Biography

Elizabeth Lomokey Pobee is a registered pharmacist and PhD researcher specializing in forensic toxicology, pharmacokinetics of new psychoactive substances, and the analytical

identification of drugs using high-resolution mass spectrometry. She previously conducted research in plant-based drug discovery and analytical chemistry under Prof. Caleb Firempong at KNUST. Her work focuses on emerging psychoactive substances, biomarker discovery, and toxicological analysis relevant to public health and drug-impaired driving.

References

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