

Simon Ofana OTIWA

+2347066719033, +679-9089643, simonotiwa55@gmail.com, simonotiwa@unicross.edu.ng

Date of Birth: 3rd October, 1997

No. 11 Leys Street, Suva; No. 96 Ekpo Abasi Street, Calabar, Nigeria

EDUCATION

Master of Science in Chemistry

The University of the South Pacific

(Mar. 2023 - Sept. 2025)

- **Thesis:** Determination of Heavy Metal Bioaccumulation in Selected Species of Seaweeds, Seagrasses Found in Nasese Seashore, Suva, Fiji
- **Final Grade:** 4.25/4.50

Bachelor of Science (Hons) in Biochemistry

(Oct 2015 - Sept 2019)

Federal University Wukari, Nigeria

- **Research Project:** Quality Assessment of Fungal Synthesized biosurfactants from agrowastes (cassava, yam, and potato peels).
- **Final Grade:** 4.80/5.00 – First Class Honours (Distinction)

RESEARCH AND TEACHING EXPERIENCE

Assistant Lecturer

Department of Chemistry, University of Cross River State, Nigeria

(Sept. 2025 – Present)

- Taught courses including research methods, bioethics and biosafety, and environmental chemistry
- Supervised 36 final year undergraduate research/project students
- Provided support to new students (freshers) through formal orientations.

Lab Assistant

Institute of Applied Science, USP Laucala Campus, Fiji

(Jun 2023 – Aug 2024)

- Engaged in the field collection of diverse environmental samples, including sediments, soil, wastewater, marine plants, macroalgae, marine organisms, and seawater, utilizing standardized EPA methodologies.
- Formulating robust and efficient methodologies for sample preparation, while refining standard operating procedures to enhance analytical accuracy and procedural consistency.
- Contributed to the analysis of environmental samples for trace metal detection using Flame Atomic Absorption Spectroscopy (FAAS) and Cold Vapor Atomic Absorption Spectroscopy (CVAAS) techniques.

Graduate Assistant

Department of Biochemistry, University of Cross River State, Nigeria.

(Oct. 2021 – Jan. 2023)

- Supported senior lecturers and professors in delivering courses such as Environmental Biochemistry, Advanced Integrated Metabolism, and Toxicology.
- Contributed to the development of departmental event programs, managed orientation sessions for newly admitted students, coordinated departmental results, facilitated student mobilization for national service.
- Involved in sample collection, data analysis, and manuscript drafting for a research study on air quality assessment.

Classroom Teacher (Emergency response by the Ministry of Humanitarian affair, disaster response, and poverty alleviation)

St Dominic Primary School, Ujenyi, Yala, Nigeria

(Oct. 2020 – Sept. 2021)

Assisted primary school teachers in developing a technology-inclusive curriculum aimed at enhancing primary education

- Instructed students in Basic Science, Introductory Technology, Computer Science, Agricultural Science, and Mathematics.
- Demonstrated the principles of simple machines using lever and pulley models, and locally showcased basic water filtration and purification techniques.
- Educated pupils on safe internet practices, computer literacy, and fundamental word processing skills.
- Conducted safe chemical reactions utilizing vinegar and baking soda, and facilitated basic engineering projects involving models of cars, houses, and bridges.

Research Assistant

(Nov. 2019 – Oct. 2020)

Department of Environmental Microbiology, Faculty of Sciences, Ekiti State University, Ado-Ekiti, Nigeria

- Conducted extensive research under Dr. Paul Orjiakor with focus on treating acrylic contaminated soil using basic microbiological processes including serial dilution, microscopy, fermentation.
- Participated in result analysis using SPSS, and co-drafting of publication manuscripts.
- Participated in the microbial assessment of fresh and smoked pork products sold in local markets.

Undergraduate Research Student

(Oct. 2018 – Sep. 2019)

Department of Biochemistry, Faculty of Pure and Applied Sciences, Federal University Wukari, Nigeria

- Coordinated a group of six students in conceptualizing undergraduate research project themes, drafting the proposal, and presenting it for departmental approval.
- Conducted research on biosurfactant synthesis by leveraging principles of microbial metabolism, optimizing organic substrate selection, and utilizing aerobic/anaerobic fermentation techniques.
- Independently authored an undergraduate research project using innovative writing techniques, academic AI, reference management tools, and plagiarism detection resources.

Data Analysis Trainee

Office of Director, the Central Lab, Federal University Wukari, Nigeria

(Oct. 2018 – Sep. 2019)

- Conducted extensive statistical analyses for undergraduate students involved in various research projects within the life sciences field.
- Supported students in structurally designing their research, formulating research questions, cleansing data using Excel, and utilizing SPSS to conduct descriptive tests, t-tests, ANOVA, and multivariate analysis.

ONLINE COURSES/CERTIFICATION

- Diploma in Project Management (17th Sep. 2024)
- Introduction to Biomedical science (Alison) (17th Aug. 2024)
- Fundamentals of Environmental Engineering (Alison) (18th Nov. 2024)
- Google Ads Video certification (google) (12th Aug. 2023)
- Certificate in CBDE Awareness - Recognizing signs of deliberate release of chemical or biological agents (Organized by the World Health Organization) (23rd Oct. 2022)
- Certificate in Health Emergency and Disaster Risk Management for Resilient Cities (Organized by the World Health Organization) (23rd Oct. 2022)

- Certificate of Participation – An introduction to human rights (Powered by the Amnesty International) (28th Jun. 2020)
- Introduction to Carbon Reduction and Net Zero (Coursera) (Dec., 2024)
- Introduction to Molecular spectroscopy (Coursera) (Jan., 2025)

PROFESSIONAL MEMBERSHIP

- American Chemical Society (2025 - present)
- Member, Chemical Society of the of the South Pacific (CSSP) (2023 – present)
- Member, International Association of Engineers (IAEng) (2022 – present)
- Member, Nigerian Society of Biochemistry and Molecular Biology (NSBMB) (2022 – Present)
- Member, Nigerian Bioinformatics and Genomic Network (NBGN) (2021 – present)

ACADEMIC AWARDS AND SCHOLARSHIP

- Scholar, Queen Elizabeth Commonwealth Scholarship (2023)
- Awardee, Federal Bursary Scholarship of Nigeria (2022)
- Beneficiary, Tertiary Education Trust Fund Grant (2022)
- Awardee, Prof. Bill Aalberberg’s Best Poster Presenter (11th Oceania Food Conference, Suva, Fiji) (2023)

WORKSHOP AND TRAINING

- Participant, ICETT (International Center for Environmental Technology Transfer) training on “Sustainable economic development through transformation of circular society and waste management” held at Yokkaichi, Japan (17 – 24 January, 2024).
- Trainee at Asi Ukpo Diagnostics and Comprehensive Cancer Center, Calabar, Nigeria. Training was undertaken under the student industrial work experience scheme for 300 Level Nigerian universities students (April – October, 2018).

CONFERENCE/SYMPOSIUM PRESENTATION

- **Oral presenter** at the 2024 International conference on mercury as global pollutant, Cape Town, South Africa (21 – 27 July, 2024). **Presentation Title:** Cold vapour determination of mercury in seaweed and seagrasses collected along Nasese Seashore, Suva, Fiji.
- **Oral Presenter** at the 2023 USP Students’ Climate Change Symposium, held at the University of the South Pacific, Laucala Bay, Suva, Fiji (23 November, 2023). **Presentation title:** Reviewing public health responses to climate extremes in Fiji Islands.
- **Poster presenter** at the 11th Oceania Food Conference held at the Institute of Applied Sciences, USP, Suva, Fiji (11th August, 2023). **Presentation title:** Determination of Mercury in Seaweeds and Seagrasses Collected Along Nasese Seashore in Suva, Fiji.
- **Oral presenter** at the UNESCO International conference on biotechnology for food security and human health (16-17 November, 2022), held at the UNESCO International Center for Biotechnology, University of Nigeria, Nsukka. **Presentation title:** Quality Assessment of Fungal Synthesized Biosurfactants from Agro- waste (Cassava, Yam and Sweet potato Peels).
- **Poster presenter** at the Alexander von Humboldt Kolleg on Africa’s BioEconomy and sustainable Development: Emerging biological technologies for food production, one health and waste to wealth, held at the University of Lagos, Akoka, Lagos, Nigeria (7-8 November, 2022). **Presentation title:** quality assessment of fungal synthesized biosurfactant from agro-waste.

VOLUNTEERING/ COMMUNITY SERVICES

Graduate student support (Volunteer)

The CSSP annual high school chemistry practical competitions (Central Fiji) (5th Oct., 2024)

- Supported these initiatives by preparing diluted reagents and transporting them from the preparation room to the laboratory centers where the experimental competition was held. Assisted in returning glassware and managing other logistical needs

Student Engagement Volunteer (USP Open Day Ceremony)

(27th Sep. 2024)

Department of Chemistry, University of the South Pacific.

- The open day is designed to guide high school students on the programs available at the university and offer advice for making appropriate course choices based on their interests and performance.
- Participated in enlightening high school students about various specializations in chemistry
- Discussed the types of research conducted by scholars in the Faculty of Chemistry.
- Demonstrated simple experiments and showcased laboratory equipment to engage the students.

Student Buddy (USP First year Buddy Programme)

(19 – 23 Feb. 2024)

2024 First semester Freshers Orientation

- Served as a mentor to new students, providing guidance and support to help them acclimate to university life and navigate academic challenges.
- Organized social and academic events to foster a sense of community among participants, promoting interaction and collaboration among peers.
- Assisted in sharing resources and information about university services, programs, and opportunities, ensuring that new students have access to essential support and tools for success.

Corpers Outreach (Medical Community Development Service)

(10th Oct. 2020)

World Mental Health Day (Ministry of health and Office of First Lady, Ekiti State, Nigeria)

- Served as public relation office, organized and facilitated awareness campaigns in the community, sharing insights gained from the lecture on mental health to educate individuals about its importance and available resources.
- Conducted interactive sessions and discussions to promote mental health literacy, encouraging open conversations and reducing stigma associated with mental health issues.

Covid 19 Sensitization (National Youth service Corp, NYSC)

(2nd Jan. 2020)

- Led a group of 35 corp members on awareness initiatives to educate residents about essential safety measures to prevent the spread of COVID-19, emphasizing the importance of hygiene, social distancing, and mask-wearing.
- Coordinated the distribution of nose masks and hand sanitizers to vulnerable populations, ensuring access to critical resources for maintaining safety and health during the outbreak.

Red Cross Member/Volunteer

(15 Sep 2010 – 18 Jul 2012)

Mathias Offoboche Secondary School

- Assisted in organizing health awareness campaigns and first aid training for students.
- Participated in community service activities, providing support during local emergencies

LIST OF PUBLICATIONS

1. **Otiwa, S. O.**, Mani, F. S., N'Yeurt, A., Prasad, S. (2025). Determination of heavy metal bioaccumulation in seaweed and seagrass species in Nasese Seashore, Suva, Fiji. *Marine Pollution Bulletin*. (*Ongoing publication*)
2. **Otiwa, S. O.**, Mani, F. S. & Prasad, S. (2025). Spectroscopic speciation of arsenic in water samples: A review. *Applied spectroscopy Reviews*, 1–33. <https://doi.org/10.1080/05704928.2025.2569593>
3. S. O. Otiwa, P. Sagero, S. Prasad (2025). Public Health Responses to Climate Extremes in the South Pacific Islands: A Case of Fiji. *Journal of Global Warming and Climate Change*, 1 (2): 2-8. <https://lnkd.in/gnwgBEbf>
4. Etim, A. N., Uwah, I. E., Oyo-Ita, E. E., Egbe, A. E., **Otiwa, S. O.** (2022). Comparative Assessment of Air

Quality in Ikot-Essien and Anantigha Communities in Cross River State, Nigeria. IOSR Journal of Applied Chemistry (IOSR-JAC) 15(2):1. e-ISSN: 2278-5736. <https://www.iosrjournals.org/iosr-jac/papers/vol15-issue2/Ser-1/A1502010110.pdf>

5. P. I. Orjiakor, G. O. Adaran, N.O. Anyanwu, **S. O. Otiwa**, and R. Adams (2021). Microbial Exposure Assessment of Fresh and Smoked Pork Within Ado-Ekiti Metropolis, Nigeria. Journal of Advances in Microbiology, 21(1):41-49. <https://doi.org/10.9734/jamb/2021/v21i630358>
6. P. I. Orjiakor, **S. O. Otiwa**, A. A. Aranyo and O. Ojerinde (2021). Impact of Textile Dye Effluents on the Microbial and Physicochemical Qualities of Surrounding Soil in Oshogbo Metropolis, Nigeria. Asian Journal of Advances in Research, 4(1): 630-638. <https://mbimph.com/index.php/AJOAIR/article/view/2272>
7. C. S. Ezeonu, & **S.O. Otiwa** (2020). Quality Assessment of Fungal Synthesized Biosurfactants from Agro- waste (Cassava, Yam and Sweet potato Peels). Research Square, DOI: <https://doi.org/10.21203/rs.3.rs-70144/v1>

LANGUAGES/SKILLS

Language: **English** – Native speaker | **Yala** – Native speaker | **Igbo** – Intermediate speaker

Skills:

- a. Microsoft Office (Word, Excel, Powerpoint)
- b. AutoDock Tools, GaussView, Discovery Studio
- c. ChemDraw
- d. Statistical analysis tools (R, SPSS, OriginPro)
- e. Reference management tools (Mendeley, Endnote, and Zotero)
- f. Microbial culture and microscopy
- g. Cold vapour atomic absorption spectroscopic techniques (FIMS -400)
- h. Flame atomic absorption spectroscopic techniques (Perkin Elmer Pinnacle 500 AAS)
- i. Histopathology apparatus (Microtome, Automatic Tissue Processor, Embedder, eosin and hematoxylin staining)
- j. Kjeldahl apparatus for protein analysis
- k. Selectra ProS, Pentra analyzers

REFEREES

1. Professor Surendra Prasad
Professor of Chemistry,
The University of the South Pacific
surendra.prasad@usp.ac.fj
2. Professor Stephen Ezeonu
Professor of Industrial Biochemistry and Biotechnology,
Federal University Wukari, Nigeria.
ezeonu@fuwukari.edu.ng
3. Asso. Prof. Antoine de Ramon N'Yeurt
University of the South Pacific
antoine.nyeurt@usp.ac.fj
4. Philip Sagero (PhD)
Lecturer, Department of Geography, SAGEONS
University of the South Pacific
philip.sagero@usp.ac.fj
5. Royford Magiri (PhD)
Associate Professor of Animal Science,
Fiji National University.
Royford.magiri@fnu.ac.fj