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Department of Biological Sciences,  
Km 12, Lagos-Ibadan Expressway,  
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### **Current Position**

**Mountain Top University**

Lecturer/Researcher

Ogun State, Nigeria

2019 – Present

### **Education**

**University of Ibadan**

Ibadan, Nigeria

Ph.D. Cell Biology and Genetics

**Thesis:** Cytogenetic and systemic toxicity assessment of silver and copper (ii) oxide nanoparticles and their mixture in the somatic cells of three eukaryotic systems

**University of Ibadan**

Ibadan, Nigeria

M.Sc. Cell Biology and Genetics

**Relevant coursework:** Human Population Genetics, Human Genetics, Molecular Genetics, Advanced Cytogenetics, Parasite Immunology, Environmental Mutagens

**Dissertation:** Cytogenotoxicity of electronic waste leachate and contaminated well water using induction of micronucleus in *Clarias gariepinus*

**University of Ilorin**

Ilorin, Nigeria

B.Sc. (Hons) Zoology

### **Grants and Awards**

**Keystone Symposia Global Health Award**

2021

Award to attend virtual meeting on Epigenetics, Chromatin Architecture, Development and Diseases sponsored by Keystone Symposia, USA

**Alexander Von Humboldt sponsored Research Experience**

2019

Alexander Von Humboldt Foundation, Germany

**Teaching and Research Assistantship Scholarship award**

2016-2019

Postgraduate School University of Ibadan, Ibadan, Nigeria.

**Best oral presentation award**

2018

8th Nigeria Young Academy (NYA) Conference and General Assembly held at University of Medical Sciences Ondo State, Nigeria

**Travel award based on merit of abstract submission**

2017

Genetic Toxicology Association USA annual meeting at Delaware, USA.

## **Research Experience**

### **Mountain Top University**

Ogun State, Nigeria

Lecturer/Researcher

2019 - Present

*In vivo* Pesticide toxicological assessment of water samples from three farm settlements in *Drosophila melanogaster* and *Allium cepa* models

- Used *Allium cepa* assay, neurobehavioural assay, Random Amplified Polymorphic DNA and Gas Chromatography – Mass Spectrophotometry (GC-MS) analyses to investigate pesticide contamination of waters sources in three farm settlements

### **Drosophila Research Training Centre**

Ibadan, Nigeria

Summer Drosophila Research Experience Scheme

Summer 2021

Cultured and used *Drosophila* model in behavioural, biochemical and molecular assessments of toxicants

### **Helmholtz Centre for Environmental Research – UFZ**

Leipzig Saxony, Germany

Guest Scientist, Advisor: Dr. Eberhard Kuester

October 2019

Used spontaneous Tail coiling test in assessment of neurotoxicity in zebrafish embryo

### **University of Ibadan**

Ibadan Nigeria

Graduate Researcher, Advisor: Prof. Adekunle A. Bakare

2014 – 2019

Toxicological assessment of silver and copper (ii) oxide engineered nanoparticles

- Used *in vivo* assays such as chromosome aberration, piscine micronucleus and bone marrow micronucleus assay in the assessment of nanoparticle toxicity in *Allium cepa*, African mud catfish and mice respectively
- Carried out biochemical and haematological analyses.

### **University of Ibadan**

Ibadan Nigeria

Graduate Research Assistant, Advisor: Prof. Adekunle A. Bakare

2011 – 2012

Assessment of e- waste leachate contamination of ground water

- Analysed well water sample for heavy metals using Atomic Absorption Spectrophotometry
- Analysed peripheral blood samples of exposed fish using micronucleus assay as genotoxicity biomarker

## **Teaching Experience**

### **Mountain Top University (MTU)**

Ogun State Nigeria

Teach Biology, Zoology Genetics and Biotechnology courses at undergraduate classes

2019 – Present

### **University of Ibadan**

Ibadan, Nigeria

Taught tutorial classes and demonstrated at year one practical classes

2014 – 2019

### **International School Ibadan (ISI)**

Ibadan, Nigeria

Taught year two high school biology

2019

## **Professional/ Administrative Experience**

### **School of Postgraduate Studies (SPGS), Mountain Top University**

Sub-Dean, SPGS

Aug 2022 to date

- Assists the Dean SPGS in the running of the postgraduate school activities

## **MTU Local Organising Committee, Society for Experimental Biology of Nigeria (NISEB)**

Conference Secretary

2022

- Successfully Managed and organised conference correspondences and programme which was attended from different parts of Nigeria

## **Local Organising Committee, MTU College of Basic and Applied Science Annual Conference**

Secretary

2021

- Successfully Managed and organised conference correspondences and programme which was attended from different parts of Nigeria

## **Biology Programme, Department of Biological Sciences, Mountain Top University**

Coordinator

2021 -2022

- Coordinated teaching and administrative activities of the programme under the department
- Mentored undergraduate students in Biology programme of the University

## **Skills and Techniques**

- Language and communication: Yoruba (native) and a good level of written and spoken English.
- Genotoxicity assays: Bone marrow micronucleus, chromosomal aberration, and sperm morphology and *Allium cepa* assays.
- Molecular biology skills: Genomic DNA extraction, total RNA extraction, Polymerase Chain Reaction, molecular docking
- Animal handling skills: Administration of substances to laboratory rodents, fish, *zebrafish* embryo and *Drosophila* - Intraperitoneal, oral, intramuscular, subcutaneous and dermal.
- Blood sample collection: Retro-orbital and cardiac puncture in mice, collection of blood from African Sharptooth catfish (*Clarias gariepinus*).
- Instrumentation: microscopy (dissecting and light) and spectrophotometry
- Software: statistical packages such as SPSS, Excel, and Graph Pad.
- Computing: Microsoft Office (Word, PowerPoint, Publisher and Excel).
- Citation tools: Mendeley.
- Leadership and Teamwork: Great cooperation with others, instinct for accuracy, fast thinker, takes initiatives, good communication with others, very calm and dedicated to finish long-term projects.

## **Professional Association**

- Society of Toxicology (SOT) 2015 till date
- Genetic Toxicology Association of Nigeria (GTAN) 2016 till date
- International society for Neurochemistry (ISN) February 2022 till date

## **Conference Attendance and Presentations**

- (i) Shokunbi O. A. and **Ogunsuyi O. I.\*** 2022. *Drosophila melanogaster*: a versatile model in Toxicology. 21<sup>ST</sup> Annual scientific conference and General Meeting of the Society for Experimental Biology of Nigeria (NISEB) held at Mountain Top University, Ogun State, Nigeria between 30 August and 2<sup>nd</sup> September 2022.

- (ii) Amosun, O. A., Ojah, E. O., Akanni, G. B. and **Ogunsuyi O. I.**\* Antimicrobial assessment of methanolic extract of *Tradescantia spathacea roots* on *Salmonella spp* and *Escherichia coli*. Presentation at the 1<sup>st</sup> College of Basic and Applied Science Conference held at Mountain Top University Ogun State Nigeria between 28 -29 October 2021
- (iii) **Ogunsuyi, O. I.**, Fadoju, O. M., Alabi, O. A., Alimba C. G., Cambier, S., Eswara S., Gutleb, A. C. and Bakare, A. A. 2018. Antagonistic cytogenotoxicity induced by the mixture of silver, and copper oxide nanoparticles in *Allium cepa* (L.). Oral presentation at the Nigerian Young Academy annual conference held at the University of Medical Science, Ondo, Ondo State on 28 - 30 August, 2018.
- (iv) **Ogunsuyi, O. I.**, Fadoju, O. M., Akanni, O. O., Alabi, O.A. Alimba, C. G., Adaramoye, O. A. and Bakare, A. A. 2017. DNA damage and systemic toxicity induced by silver and copper oxide nanoparticles and their mixture in *C. gariepinus* (Burchell, 1822). Oral and poster presentation at the 2017 annual conference of the Genetic Toxicology Association held at University of Delaware, Newark, United States of America on 11 – 12 May, 2017.
- (v) **Ogunsuyi, O. I.**, Fadoju, O. M., Akanni, O. O., Alimba, C. G., Adaramoye, O. A. and Bakare, A. A. 2017. Cytogenotoxicity and oxidative stress in *Clarias gariepinus* (Burchell, 1822) exposed to silver, copper oxide nanoparticles and their mixture. A poster presentation at the 56th Society of Toxicology (SOT) annual meeting and ToxExpo held at Baltimore Convention centre, Baltimore, Maryland, United States of America on 12 – 16 March, 2017.
- (vi). **Ogunsuyi, O. I.**, Fadoju O. M., Oyeyemi, I. T., Alabi, O. A., Alimba C. G. and Bakare A. A. (2016). Silver and copper oxide nanoparticles and their mixture induced micronucleus and other nuclear lesions in peripheral blood of *Clarias gariepinus* (Burchell, 1822). Poster presentation at the 5th International Conference of the West Africa Society of Toxicology held at University of Benin, Benin, Nigeria, 9th – 12th February, 2016.

## **Publications**

### **Books/Monographs and Chapters in Books**

- (i) **Ogunsuyi, O. I.**, Fadoju, O. M., Coker, M. M., Akinrinade, S. O., Oyeyemi, I. T., Alabi, O. A., Alimba, C. G. and Bakare, A. A. 2018. Nano – Genotoxicity evaluation: A review. *Nanotoxicology: Toxicity Evaluation, Risk Assessment and Management*” V. Kumar, N. Dasgupta and S. Ranjan, Eds Boca - Raton: CRC- Taylor and Francis. Pp 463 - 504.

### **Peer reviewed articles**

- (i) Bakare, A.A., Moses, V.Y., Beckely, C.T., Oluyemi, T.I., Ogunfeitimi, G.O., Adelaja A.A., Ayorinde, G.T., Gbadebo, A.M., Fagbenro, O.S., **Ogunsuyi, O.I.**, Ogunsuyi, O.M. and Ige, O.M. (2022), The first-line antituberculosis drugs, and their fixed-dose combination induced abnormal sperm morphology and histological lesions in the testicular cells of male mice. *Front. Cell Dev. Biol.* 10:1023413. doi: 10.3389/fcell.2022.102341
- (ii) Bakare, A. A., Fadare, A. O., **Ogunsuyi, O. I.**, and Bakare, O. C. (2021). Exposure to a contaminated tropical freshwater (Awba Dam) in Ibadan, Nigeria, induced cytogenotoxicity and haematopathological changes in *Clarias gariepinus*. *Environmental Science and Pollution Research*, 1-9.

- (iii) Ogunsuyi, O.M., **Ogunsuyi, O.I.**, Akanni, O., Alabi, O., Alimba, C., Adaramoye, O., ... & Bakare, A. (2020). Physiological and histopathological alterations in male Swiss mice after exposure to titanium dioxide (anatase) and zinc oxide nanoparticles and their binary mixture. *Drug and Chemical Toxicology*, 1-26
- (iv) Ogunsuyi, O. M., **Ogunsuyi, O. I.**, Akanni, O., Alabi, O., Alimba, C., Adaramoye, O., Cambier, S., Eswara, S., Gutleb, A. C. and Bakare, A. A. (2020): Alteration of sperm parameters and reproductive hormones in Swiss mice via oxidative stress alter co-exposure to titanium dioxide and zinc oxide nanoparticles. *Andrologia* doi:10.1111/and.13758.
- (v) Ogunsuyi, O. M., Adegoye, E. O., **Ogunsuyi, O. I.**, Alabi, O. A., Alimba, C. G., & Bakare, A. A. (2020). Titanium dioxide nanoparticles-induced cytogenotoxicity and alterations in haematological indices of *Clarias gariepinus* (Burchell, 1822). *Toxicology and Industrial Health*, 0748233720948682.
- (vi) Bakare, A.A., Akinseye, K.M., Aminu, B.A., Ofoegbu, F.C., Anifowose, S.O., Abruda, S., Fadoju, O.M., **Ogunsuyi, O.I.**, Oyeyemi, I.T., Alabi, O.A., Adetona, O.M. and Alimba, C. G. 2020. Genetic and reproductive toxicity of lamivudine, tenofovir disoproxil fumarate, efavirenz and their combination in the bone marrow and testicular cells of male mice. *Annals of Science and Technology*. DOI: 10.2478/ast-2020-0001
- (vii) Fadoju, O.M., Osinowo, O.A., **Ogunsuyi, O.I.**, Oyeyemi, I.T., Alabi, O.A., Alimba, C.G. and Bakare, A.A., 2020. Interaction of titanium dioxide and zinc oxide nanoparticles induced cytogenotoxicity in *Allium cepa*. *The Nucleus*, pp.1-8. DOI: 10.1007/s1327-020-00308-1.
- (viii) **Ogunsuyi, O. I.**, Fadoju, O. M., Akanni, O. O., Alabi, O. A., Alimba C. G., Cambier, S., Eswara S., Gutleb, A. C., Adaramoye, O. A. and Bakare, A. A. 2019. Genetic and systemic toxicity induced by silver and copper oxide nanoparticles and their mixture in *Clarias gariepinus* (Burchell, 1822). *Environmental Science and Pollution Research*. DOI: 10.1007/s11356-019-05958-6.
- (ix) Fadoju, O., **Ogunsuyi, O.**, Akanni, O., Alabi, O., Alimba, C., Cambier, S., Eswara S., Gutleb, A. C., Adaramoye, O., Bakare, A. 2019. Evaluation of cytogenotoxicity and oxidative stress parameters in male Swiss mice co-exposed to titanium dioxide and zinc oxide nanoparticles. *Environmental Toxicology and Pharmacology*. doi.org/10.1016/j.etap.2019.103204.
- (x) Bakare, A. A., Uzoibiam, B. O., Oteyola, A. O., Fadoju, O. M., **Ogunsuyi, O. I.**, Gbadebo, A. M., Gbadebo, Bakare, O. C. and Alimba, C. G. 2019. Genetic and systemic toxicity induced in *Allium cepa* and *Mus musculus* by a tropical freshwater dam in Ibadan, Nigeria. *Journal of Environmental Toxicology and Public Health*, 4, 21-35.
- (xi) Bakare A. A., Udoakang A.J., Anifowoshe A.T., Fadoju O.M., **Ogunsuyi O.I.**, Alabi O.A., Alimba C.G. and Oyeyemi, I.T. 2016. Genotoxicity of Titanium dioxide Nanoparticles using the Mouse Bone Marrow Micronucleus and Sperm Morphology Assays. *Journal of Pollution Effects and Control* 4:156.
- (xii) Bakare, A. A., Alabi, O. A., Gbadebo, G. M., **Ogunsuyi, O. I.** and Alimba, C. G. 2013. In vivo Cytogenotoxicity and Oxidative Stress Induced by Electronic Waste Leachate and Contaminated Groundwater. *Challenges*. 4:169 – 187.

## **Papers in Refereed Conference Proceedings**

- (i) Fadoju, O.M., **Ogunsuyi, O.I.**, Akanni, O. O., Alabi, O. A., Alimba, C.G., Adaramoye O. A. and Bakare, A.A. 2017. Titanium dioxide and Zinc oxide nanoparticles induce genotoxicity and nephrotoxicity via oxidative stress. Peer reviewed proceeding of 9th International Toxicology Symposium in Africa. Benin: 7 – 8 September, 2017.pp 105 – 106.
- (ii) Fadoju, O.M., **Ogunsuyi, O.I.**, Alimba, C.G. and Bakare, A.A. 2015. Genotoxicity and Mutagenicity of Metal Oxide nanoparticles. Proceedings of the 1st Central and West Africa Regional Conference of the Society of Environmental Toxicology and Chemistry (SETAC) Africa. Nsukka: 28th – 31st January, 2015. 9- 14.

## **Trainings/ Workshops**

- (i) Summer *Drosophila* Research Experience Scheme training workshop organised by *Drosophila* Research and Training centre, Ibadan, Nigeria between 10th September – 9th October, 2021
- (ii) SARS – CoV- 2 partial genome sequencing training workshop organised by Nigerian Institute of Medical Research Yaba Lagos. 7th – 11th December, 2020
- (iii) JARIS *in silico* research centre workshop on “Molecular Docking” held virtually between 16 and 18<sup>th</sup> July, 2020.
- (iv) Medical Education Partnership Initiative in Nigeria (MEPIN) workshop on “Research Design and Methodology” in partnership with the Fogarty International Center at the U.S. National Institutes of Health 15-18 January, 2019.
- (v) Medical Education Partnership Initiative in Nigeria (MEPIN) workshop on “Responsible conduct of research” in partnership with the Fogarty International Center at the U.S. National Institutes of Health 18-20 December, 2018.
- (vi) Introduction to Bioinformatics training course organized by H3Abionet - Pan African Bioinformatics network of H3Africa held at the National Biotechnology Development Agency (NABDA) node, Ibadan, Nigeria. August – October, 2016.
- (vii) Scientific training workshop for postgraduate students on application of High-Performance Liquid chromatography, Atomic Absorption Spectrophotometry and UV – VIS Spectrophotometry organised by Multidisciplinary Central Research Laboratory (MCRL), University of Ibadan, 14 – 16 June, 2016.

## **Hobbies/ Extracurricular Activities**

Reading, Chess, Lawn Tennis and travelling

## **References**

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