Curriculum Vitae IJOMONE, Omamuyovwi Meashack

Contact Address:

Department of Anatomy Faculty of Basic Medical Sciences University of Medical Sciences, Ondo (UNIMED) Laje Road, Ondo City, Ondo State, Nigeria Phone: +234 7031354971 **E-mail:** <u>omijomone@unimed.edu.ng</u> (BSc, MSc, PhD) Associate Professor & Group Leader, NIH Emerging Global Leader Humboldt Fellow, AAS Affiliate Visiting Assistant Professor, Einstein, NY, USA

Online Profile:

https://www.researchgate.net/profile/Omamuyovwi_Ijomone2 https://orcid.org/0000-0002-0933-8409 https://www.linkedin.com/in/omamuyovwi-ijomone-1610481b/

Personal email address:

Higher Education

godmamus@gmail.com,

PhD Anatomy, May 2015; Obafemi Awolowo University (OAU), Ile-Ife, Nigeria.
 MSc Anatomy, November 2011; Obafemi Awolowo University (OAU), Ile-Ife, Nigeria.
 BSc (Hons) Human Anatomy, November 2006; University of Port Harcourt (UniPort), Port Harcourt, Nigeria.

Professional Qualification(s)

- Institute of Technology-Enhanced Learning and Digital Humanities (INTEDH), Federal University of Technology, Akure, Nigeria
- Enabling Blended Learning: A Modular Teacher Development Course, September 2021
 National Open University of Nigeria (NOUN), Abuja, Nigeria
- Online Facilitation and Instructional Video Content Production Training for Open and Distance Learning, March 2021
- Montreal Cognitive Assessment (MoCA) Certificate of Completion, April 2020
- Albert Einstein College of Medicine, USA Certificate in Hands-on Basic Rodent Handling and Non-Surgical Research Techniques, February 2018
- Collaborative Institutional Training Initiative (CITI), USA *Basic course: Working with the IACUC, October 2017*
- Collaborative Institutional Training Initiative (CITI), USA Basic course: Working with Rats in Research Settings, October 2017
- Collaborative Institutional Training Initiative (CITI), USA
 Basic course: Working with Mice in Research Settings, October 2017
- National Institute of Management (Chartered), Nigeria *Proficiency Certificate in Management, November 2008*

Research Experience

Research Interest and Activities

My main research thrust is in the field of neurosciences with particular emphasis on neurotoxicology, neurodegeneration, and neurodevelopment. I aim to understand how the brain is affected by an interplay of genetic and environmental factors that trigger neuronal perturbations and/or neuronal death at critical stages of development and across the lifespan. My current research specifically examines how heavy metals (including nickel, manganese, vanadium, and cobalt) pose a significant risk to the nervous system. Overexposure to such metals has been shown to be neurotoxic and potentially teratogenic in the developing brain. Hence my research could help advance the understanding of gene-environmental interactions in the pathogenesis of neurodegenerative and neurodevelopmental disorders including Parkinson's, Alzheimer's and autism. Furthermore, given the emerging evidence of gut microbiome in these brain disorders, I also aim to investigate the involvement of complex multifactorial interactions could be key to identifying better disease biomarkers and new drug targets as well as developing multifactorial therapeutic interventions.

Research Skills and Techniques

Rodent (mice and rats) models, *C. elegans* model, behavioural analysis, histology, immunohistochemistry, western blotting, qPCR analysis, rodent brain dissection, rodent stereotaxic injection, microscopy (brightfield, fluorescence, confocal, and electron), digital image analysis (with Image J, QuantCenter), biostatistics

Postdoctoral Training and Other Research Experience

Albert Einstein College of Medicine (Einstein), New York, USA *Visiting Assistant Professor* (December 2022 – date) *Visiting Scientist* (November 2022 – December 2022) Department of Molecular Pharmacology Duties: Recuring yearly research visits as part of a 5-year National Institute of Health (NIH) K43 grant. *Host*: Prof. Michael Aschner

Bergische Universität Wuppertal, Wuppertal, Germany *Alexander von Humboldt Georg Foster Research Fellow* (April – October 2021) Department of Food Chemistry, Faculty of Mathematics and Natural Sciences Duties: Research Host: Prof. Julia Bornhorst

Albert Einstein College of Medicine (Einstein), New York, USA *IBRO-ISN Postdoctoral Research Fellow* (September 2017 – August 2018) Department of Molecular Pharmacology Duties: Research *Host/Advisor*: Prof. Michael Aschner

University of Kwa-Zulu Natal, Durban, South Africa. *Visiting Scientist* (July 2017 – August 2017) Optics and Imaging Centre Nelson Mandela School of Medicine Duties: Research *Host*: Prof. Thajasvarie Naicker

Albert Einstein College of Medicine (Einstein), New York, USA *Visiting Scientist* (July 2015 – Oct 2015) Department of Molecular Pharmacology Duties: Research *Host/Advisor*: Prof. Michael Aschner

Academic Positions

University of Medical Sciences, Ondo, Nigeria Associate Professor & Group Leader (Jun 2023 – till date) Department of Anatomy Faculty of Basic Medical Sciences Duties: Design and execute research in field of interest, as an ind

- o Design and execute research in field of interest, as an independent early career researcher.
- Teach human anatomy neuroscience and other biomedical courses to undergraduate and graduate students in basic medical sciences.
- Develop and periodically review and update curriculum and learning modules for undergraduate and postgraduate programmes.
- Provide leadership as a senior academic staff.
- o Provide mentorship to junior academic staff pursuing postgraduate degrees.
- o Design and supervise research of undergraduate and graduate students, as well as provide mentorship.

Federal University of Technology Akure (FUTA), Nigeria

Senior Lecturer (Oct 2019-May 2023)

Group Leader, The Neuro- Lab (Jan 2019-May 2023)

Lecturer I (Sept 2016-Sept 2019)

Department of Human Anatomy

School of Basic Medical Sciences (formerly School of Health and Health Technology)

Duties:

- o Design and execute researches in field of interest, as an independent early career researcher.
- Teach human anatomy neuroscience and other biomedical courses to undergraduate and graduate students in basic medical sciences.
- Develop and periodically review and update curriculum and learning modules for undergraduate and postgraduate programmes.
- Provide leadership as a senior academic staff.
- Provide mentorship to junior academic staff pursuing postgraduate degrees.
- Design and supervise research of undergraduate and graduate students, as well as provide mentorship. *Other Administrative Duties:*

Other Administrative Duties:

- Acting Head of Department
- o Examination Officer (served both at department and school level).
- o Students' Course Adviser and Level Coordinator.
- Serve on several boards and committees.

Subject taught and dates:

- a) ANA 205 Gross Anatomy of the lower limbs; 2016/2017 First Semester.
- b) ANA 204 Systemic Histology; 2017/2018 Second Semester.
- c) ANA 302 Head and Neck; 2017/2018 Second Semester, 2018/2019 Second Semester.
- d) ANA 303 Systemic Histology of the Urogenital System; 2018/2019 First Semester.
- e) ANA 304 Neurohistology and Histology of Special Senses; 2018/2019 Second Semester.
- f) ANA 307 Microscopy and Histological Techniques; 2018/2019 First Semester, 2019/2020 First Semester.
- g) ANA 308 Neuroanatomy; 2018/2019 Second Semester.
- h) ANA 315 Histochemistry, Cytochemistry and Immunohistochemistry; 2018/2019 First Semester.
- i) ANA 409 Biometry and Human Growth; 2018/2019 First Semester, 2019/2020 First Semester.
- j) ANA 410 Sports Anatomy and Biomechanics; 2018/2019 Second Semester.
- k) ANA 207 General Histology; 2019/2020 First Semester.
- 1) ANA 201 Introduction to Gross Anatomy; 2020/2021 First Semester.
- m) ANA 303 Systemic Histology II; 2020/2021 First Semester.
- n) ANA 311 Basic Histopathology; 2020/2021 First Semester.
- o) ANA 317 Research Methods and Ethics; 2020/2021 First Semester.

University of Cross River State (*formerly* Cross River University of Technology) Calabar, Nigeria *Lecturer II* (May 2015-Sept 2016)

Assistant Lecturer (Sept 2012-April 2015)

Department of Human Anatomy

Faculty of Basic Medical Sciences, Okuku Campus.

Duties

• Design and execute researches in field of interest.

o Teach anatomy courses to undergraduate basic medical science students.

Other Administrative Duties:

- o Assistant Examination Officer.
- Students' Course Adviser and Level Coordinator.

• Faculty representative to the University Senate.

Subject taught and dates:

- a) ANA 2203- Histology of CVS, Immune and Urogenital Systems, Skin and Its Appendages; Second Semesters 2011/2012, 2012/2013.
- b) ANA 2201- Gross Anatomy of Thorax and Abdomen, Pelvis and Perineum; Second Semester 2011/2012.
- c) ANA 2103- General Histology and Histology of Digestive System; First Semester 2012/2013.
- d) ANA 2101- Gross Anatomy of Upper and Lower Limbs; 2012/2013 First Semester, 2013/2014 Second Semester.
- e) ANA 2202- Embryology of Cardiovascular, Respiratory, and Digestive System; Second Semester 2014/2015.
- f) ANA 3102- Embryology of Urogenital Systems, Head and Neck; First Semester 2012/2013.
- g) ANA 3105- Relevant Lab Techniques; First Semesters 2012/2013, 2013/2014, 2014/2015, 2015/2016.
- h) ANA 3106- Basic Histopathology I; First Semesters 2013/2014, 2014/2015, 2015/2016.
- i) ANA 4101- Cell and Molecular Biology; First Semesters 2012/2013, 2013/2014, 2014/2015, 2015/2016.
- j) ANA 4102- Histochemistry; First Semesters 2012/2013, 2013/2014, 2014/2015, 2015/2016.

Others

Gross Anatomy Demonstrator (Apr 2009-Aug 2012) Department of Anatomy and Cell Biology Obafemi Awolowo University, Ile-Ife, Nigeria *Duties*

• Worked as a prosector to instruct pre-clinical medical, dental, nursing and medical rehabilitation students in anatomical dissections of cadavers.

Other Work Experience

Part-Time Nursing Tutor (May 2009-June 2010)

Foreign Links Campus, Moro, Osun

• Taught advanced biology, introductory anatomy and physiology courses to nursing students

Corper Training Secretary (Oct 2007- Sept 2008)

National Youth Service Corps (NYSC)

Nigeria Fellowship of Evangelical Students (NIFES) Ekiti Subzone, Ado-Ekiti, Ekiti

• Organized and participated in training for undergraduate students, including leadership training

Teacher (Oct 2006-Sept 2007)

Christ the King Int. School, Orhuwhorun, Udu, Delta

• Taught agricultural sciences to junior and senior secondary school students

Mentoring and Supervision

Postgraduate supervision

Doctoral Supervision

Rademene S. Oria, Visiting Doctoral Fellow 2021/2022, The Neuro- Lab, SBMS, FUTA. Title: Neuroprotective effect of curcumin on cobalt-induced cognitive deficits in adult albino Wistar rats. *Co*-

supervision; 2018 – present.

Grace T. Akingbade, Junior Lecturer/PhD Fellow, The Neuro- Lab, SBMS, FUTA.

Title: D-ribose-L-cysteine mitigates manganese-induced corticostriatal oxidative stress and neuronal degeneration: implications for cognitive and motor functions. *Co-supervision;* 2017 – 2022.

Others:

Ms Joy Ireogbu – Research Assistant/MSc Candidate, The Neuro- Lab, SBMS, FUTA. **Dr Oritoke Aluko** – Junior Lecturer/Postdoc Fellow, The Neuro- Lab, SBMS, FUTA.

Dr Olayemi Ijomone - Junior Lecturer/Postdoc Fellow, The Neuro- Lab, SBMS, FUTA.

Additionally, I supervised many theses/dissertations of final-year undergraduate students, and provide mentorship to numerous other junior scientists.

Graduate Interns:

- Ms Joy Ireogbu, BSc (Dec 2019 Mar 2020); presently the Research Assistant in the lab since February 2021
- Ms Favour Olung, *BSc* (Dec 2019 Mar 2020); presently an Entry Level Banker in Access Bank, one of top-five banking institutions in Nigeria.
- Mr Chibuzor Ifenatuoha, *BSc* (Dec 2019 Mar 2020); Received the European Society of Human Reproduction and Embryology Traveling Fellowship in 2020 under my guidance, and is presently working as Assisted Reproductive Technology (ART) specialist in my country.
- Ms Omolabake Omotosho, BSc (Nov 2021 Feb 2022); presently on compulsory one-year national service.
- Mr Oluwatosin Adebayo, BSc (Nov 2021 Feb 2022); presently on compulsory one-year national service.
- Mr Emeka Emmanuel, BSc (Nov 2021 Feb 2022); presently on compulsory one-year national service.
- Ms Hassanat Etti-Balogun, BSc (Jan 2022 Feb 2022); presently on compulsory one-year national service.

Honours and Awards

2021-2025 African Academy of Sciences (AAS) Affiliate

The AAS Affiliate award is in recognition of my excellent achievements in science within Africa amongst young researchers and to provide mentorship towards advancement to independent scientific leader.

Grants/Fellowships

International Society for Neurochemistry (ISN) Career Development Grant

Role for the worm "natural" gut microbiota in parkin-deficient and manganese-induced *C. elegans* model of parkinsonism.

Role: Principal Investigator (PI); Dates: January 2023 – June 2024

This grant aims to understand how modifying the natural gut microbiome in *C. elegans* (CeMBio) could affect the severity of DAergic degeneration and functional loss after mutations of familial PD-linked genes exposed to manganese.

National Institute of Health (NIH) K43 Emerging Global Leader Award – 1K43TW011932-01A1

Developmental neurotoxicity and autism spectrum disorder

Role: PI; Dates: July 2022 – June 2027

This grant supports my research aimed at understanding gene-environment interactions between mutations in ASD risk genes and neurodevelopmental sequelae of metal exposures, as well as support my career development into a global scientific leader.

Alexander von Humboldt (AvH) Return Fellowship

Neurodevelopmental toxicity of nickel: elucidating role for ERK-MAPK signalling

Role: PI; Dates: November 2021 – October 2022

This grant provide support for some basic research supply and reintegration after short-term research visit to Germany.

NIH K43 Award - 1K43TW011932-01

Epigenetic influence of diet on bladder physiology

Role: Collaborator; PI: Dr T Adedeji; Dates: August 2021 - May 2026

This grant is to support the career development of the PI, Dr Adedeji, into an independent investigator over a 5-year period. Here, I'm a collaborator in aspect specific to using histological and immunohistochemistry techniques to study bladder morphology.

International Brain Research Organization (IBRO) Early Career Awards

Role: PI; Date August 2021 – July 2022

This grant provides follow-on funding from IBRO for vital equipment and installation of a Solar-Powered Inverter System for back-up electric power for my lab.

ISN-Committee for Aid and Education in Neurochemistry (CAEN) Category 1B Grant

Co-occurrence of chronic stress and metal toxicities on brain and behaviour

Role: PI; Dates: June 2021 – May 2022

This grant provided some supplies to support our ongoing research activities aimed at delineating cooccurring risk factors of metal exposure and chronic stress on brain health.

Alexander von Humboldt (AvH) Georg Forster Research Fellowship for Experienced Researchers

Neurological consequences of heavy metal contamination in Nigeria's oil-rich region; delineating role for p38- and ERK- MAPK inflammatory pathways using the *C. elegans* model.

Role: PI; Dates: Apr – Oct 2021 (Awarded in 2020)

The fellowship is supporting a research visit to Prof. Dr. Julia Bornhorst's lab at University of Wuppertal, Germany, with focus of building new collaborations.

Africa Research Excellence Fund (AREF) Research Development Fellowship (*unutilized*)

Building capacity towards investigating heavy metals as environmental risk factors in autism spectrum disorders using the innovative *Caenorhabditis elegans* experimental model.

Role: PI; Dates: Apr – Dec 2021

The goal of this fellowship was to support capacity building towards developing the *C. elegans* model for autism studies in home institution including collaborative visit to Germany. This fellowship was *unutilized* due to conflict of interest with the aforementioned AvH fellowship.

Young IBRO Regions Connecting Awards

Elucidating the role of PI3K/Akt signaling in a *C. elegans* model of nickel-induced neurotoxicity. Role: PI; Dates: Jun 2019 – Dec 2020.

This award supported collaborative efforts with Prof M Aschner's lab at Albert Einstein College of Medicine, USA. Specifically, with this award we began building our local capacity to use the *C. elegans* model.

ISN- CAEN Category 1B Grant

Role of DMT1 and its transported metals, and PI3K/Akt/mTOR signalling in nickel-induced neurotoxicity. Role: PI; Dates: Feb 2019 – Feb 2020

This grant provided research supplies to support research activities aimed at investigating DMT1 protein expression, as well as PI3K/Akt/mTOR pathway in nickel-induced neurotoxicity.

IBRO Return Home Fellowship

Nickel-induced neurotoxicity; impact on DMT-1 expression and transported metals, and role of PI3K/Akt/mTOR signaling in rats. Role: PI; Dates: Dec 2018 – Nov 2020

This fellowship supported starting up of my research lab at my home institution on completion of my postdoctoral position in the USA.

IBRO-ISN Research Fellowship

Nickel-induced developmental neurotoxicity in *C. elegans*. Role of calcium binding proteins in manganese-induced neurotoxicity in rats. Role: PI; Dates: Sept 2017 – Aug 2018 The goal of this fellowship was to support a postdoctoral research fellow position at the Albert Einstein College of Medicine, USA.

IBRO-ARC Bursary | ISN-CAEN 1A | CoB-DMMTF

Role: PI; Dates: Jul – Dec 2015

Role of trt-1 in manganese-induced neurotoxicity in C. elegans.

This multi-sponsor project was aimed at supporting a research visit for advanced training in neuroscience techniques at the Albert Einstein College of Medicine, USA.

Other support:

2022 IBRO-SfN Travel Grant.

To support participation at annual meeting of the Society for Neuroscience, San Diego, USA, 12 - 16 November 2022.

2019 ISN Schools Initiative Support.

To organize a 1-week neuroscience school at current institution (a workshop/course to train aspiring and young African scientists to acquire hands-on skills and techniques used in neurosciences) in October 2019. (*Co-awardee with Prof Ganiyu Oboh*).

2017 The Company of Biologist (CoB) UK, Disease Models and Mechanisms Travelling Fellowship.

To support a research visit to Optics and Imaging Center, University of KwaZulu-Natal, South Africa from July – August 2017.

2016 IBRO-US/Canada Regional Committee (IBRO-USCRC) School Travel Grant.

Paid airfare, accommodation, and subsistence to participate in 10th Canadian School of Neuroscience and Canadian Association of Neurosciences Annual Meeting, Canada, May 18–June 1, 2016.

2015 ISN Advanced School Grant.

To support participation at ISN advanced school and biennial conference, Cairns Australia, 19 – 27 August 2015.

2015 IBRO International Travel Grant.

To support participation at 12th International Conference of the Society of Neuroscientist of Africa (SONA), Durban, South Africa, 26 - 30 March 2015.

2013 IBRO-ARC/ISN School travel grant.

Paid airfare, accommodation and subsistence to participate in IBRO-ARC/ISN Neuroscience School and 11th SONA Conference, Rabat, Morocco, 8 – 17 June, 2013.

2012 IBRO-ARC School travel grant

Paid airfare and accommodation to participate in the IBRO School on Insect Neuroscience and Drosophila Neurogenetics, Ishaka, Uganda, 20 August – 7 September 2012.

Publications

H-index – 21; *Number of citations* – >1400 (*Google scholar*)

Links to list of peer-reviewed publications

Pubmed: <u>https://pubmed.ncbi.nlm.nih.gov/?term=ijomone%20om</u> Google Scholar: <u>https://scholar.google.com/citations?user=SXjrkNIAAAAJ&hl=en</u>

Book Chapter(s)

2021

 Ijomone OM, Gubert P, Okoh COA, Varão AM, Amaral LO, Aluko OM, Aschner M. Application of Fluorescence Microscopy and Behavioral Assays to Demonstrating Neuronal Connectomes and Neurotransmitter Systems in *C. elegans*. In: Llorens J, Barenys M (Eds). Experimental Neurotoxicology Methods. Neuromethods Vol. 172, Pp 399-428. Humana-Springer, New York, NY; 2021. https://doi.org/10.1007/978-1-0716-1637-6_18 Ijomone OM. Neurotoxicity of nickel. In: Aschner M, Costa L (Eds). Neurotoxicity of metals: Old Issues and New Developments. Advances in Neurotoxicology Series Vol. 5, Pp 263-284 Academic Press-Elsevier, Cambridge, MA; 2021. <u>https://doi.org/10.1016/bs.ant.2020.11.004</u>

2019

 Chen P, Ijomone OM, Lee KH, Aschner M. *Caenorhabditis elegans* and its applicability to studies on RLS. In: Clemens S, Ghorayeb I (Eds). Pharmacology of Restless Legs Syndrome (RLS), 1st Ed. Advances in Pharmacology Series Vol. 84, Pp 147-174. Academic Press-Elsevier, Cambridge, MA; 2019. <u>https://doi.org/10.1016/bs.apha.2018.12.003</u>

Published Journal Articles

2023

- 1. Oria RS, Anyanwu GE, Esom EA, Nto JN, Katchy AU, Agu AU, **Ijomone OM**. Modulatory role of curcumin on cobalt-induced memory deficit, hippocampal oxidative damage, astrocytosis, and nrf2 expression. *Neurotoxicity Research*, 2023; *Online first. PubMed ID: 36692684; Journal Impact Factor 3.978*. https://doi.org/10.1007/s12640-023-00635-6
- Omayone TP, Salami FT, Aluko OM, Nathanniel JN, Jeje SO, Adedeji TG, Ijomone OM. Neuroprotective effects of Methyl jasmonate in male Wistar rats exposed to delayed acetic acid-induced ulcerative colitis: involvement of antioxidant status, GFAP, and IBA-1 immunoreactivities. *Metabolic Brain Disease*, 2023; *Online first. PubMed ID: 36595156; Journal Impact Factor 3.655.* <u>http://dx.doi.org/10.1007/s11011-022-01145-8</u>
- Salau VF, Erukainure OL, Olofinsan KO, Bharuth V, Ijomone OM, Islam MS. Ferulic acid improves glucose homeostasis by modulation of key diabetogenic activities and restoration of pancreatic architecture in diabetic rats. *Fundamental & Clinical Pharmacology*, 2023; 37:324-339. *PubMed ID: 36541946. Journal Impact Factor – 2.747.* https://doi.org/10.1111/fcp.12860

- Oria OS, Bassey RB, Esomonu UG, Ibiang EP, Eze OL, Ekligbor EG, Eyong OO, Ijomone OM. Cobalt exposure triggers impairments in cognitive and anxiety behaviours, brain oxidative stress and inflammation, and hippocampal-amygdala histomorphological alterations: Protective role of *Prosopis africana* seed extract. *Iranian Journal of Biomedical Sciences*, 2022; 25(12):1528-1536. *PubMed ID*: 36544532. *Journal Impact Factor* – 2.532. <u>https://doi.org/10.22038/ijbms.2022.65689.14456</u>
- ,Ogunsuyi OB, Omage FB, Ijomone OM, Oboh G, Rocha JB. Effect of chlorogenic acid plus donepezil on critical neurocortical enzyme activities, inflammatory markers, and synaptophysin immunoreactivity in scopolamine-assaulted rats, supported by multiple ligand simultaneous docking. *Journal of Food Biochemistry*, 2022; e14312. *PubMed ID*: 35791518. *Journal Impact Factor* – 3.654. <u>https://doi.org/10.1111/jfbc.14312</u>
- Ijomone OM, Iroegbu JD, Morcillo P, Ayodele AJ, Ijomone OK, Bornhorst J, Schwerdtle T, Aschner M. Sex-dependent metal accumulation and immunoexpression of Hsp70 and Nrf2 in rats' brain following manganese exposure. *Environmental Toxicology*, 2022; 37:2167-2177. *PubMed ID:* 35596948. *Journal Impact Factor* – 4.109. <u>https://doi.org/10.1002/tox.23583</u>
- Salau VF, Erukainure OL, Ijomone OM, Islam MS. Caffeic acid regulates glucose homeostasis, inhibit purinergic and cholinergic activities, while abating oxidative stress and dyslipidemia in fructosestreptozotocin induced diabetic rats. *Journal of Pharmacy and Pharmacology*, 2022; 74:973-984. *PubMed ID*: 35640634. *Journal Impact Factor* – 4.810. <u>https://doi.org/10.1093/jpp/rgac021</u>
- 8. Akingbade GT, **Ijomone OM**, Imam A, Aschner M, Ajao MS. D-Ribose-L-Cysteine attenuates manganeseinduced cognitive and motor deficit, oxidative damage, and reactive microglia activation. *Environmental*

Toxicology and Pharmacology, 2022; 93:103872. *PubMed ID: 35513219. Journal Impact Factor* – 5.785. https://doi.org/10.1016/j.etap.2022.103872

 Oria RS, Obeten KE, Etetim A, Mgbolu PE, Ikoku GE, Ijomone OM. Ameliorative effect of *Prosopis* africana seed extract on cobalt chloride induced cerebellar toxicity: neurobehavioural, histomorphological and biochemical findings. *Nigerian Journal of Neuroscience*, 2022; 13:9-19. <u>http://doi.org/10.47081/njn2022.13.1/002</u>

- Salau VF, Erukainure OL, Olofinsan KO, Msomi NZ, Ijomone OM, Islam MS. Vanillin improves glucose homeostasis and modulates metabolic activities linked to type 2 diabetes in fructose–streptozotocin induced diabetic rats. Archives of Physiology and Biochemistry, 2021; Online ahead of print. PubMed ID: 34752171. Journal Impact Factor – 3.188. <u>https://doi.org/10.1080/13813455.2021.1988981</u>
- Iroegbu JD, Ijomone OK, Femi-Akinlosotu OM, Ijomone OM. ERK/MAPK signalling in the developing brain: Perturbations and consequences. *Neuroscience and Biobehavioral Reviews*, 2021; 131:792-805. *PubMed ID: 34634357. Journal Impact Factor – 9.052.* <u>https://doi.org/10.1016/j.neubiorev.2021.10.009</u>
- Omayone TP, Ijomone OM, Oloyede SB, Okunola ST, Aigoro ZO, Esukpa VU, Dinakin SO. Modulatory action of Moringa oleifera Lam. on L-arginine induced acute pancreatitis. *Journal of Basic Clinical Physiology and Pharmacology*, 2021; *Online ahead of print. PubMed ID: 34606706*. <u>https://doi.org/10.1515/jbcpp-2021-0149</u>
- Salau VF, Erukainure OL, Olofinsan KA, Ijomone OM, Msomi NZ, Islam MS. Vanillin modulates activities linked to dysmetabolism in psoas muscle of diabetic rats. *Scientific Reports*, 2021; 11, 18724. *PubMed ID: 34548565. Journal Impact Factor – 4.996.* <u>https://doi.org/10.1038/s41598-021-98158-7</u>
- Akingbade GT, **Ijomone OM**, Imam A, Aschner M, Ajao MS. D-Ribose-L-Cysteine Improves Glutathione Levels, Neuronal and Mitochondrial Ultrastructural Damage, Caspase-3 and GFAP Expressions Following Manganese-Induced Neurotoxicity. *Neurotoxicity Research*, 2021; 39:1846–1858. *PubMed ID: 344807351*. *Journal Impact Factor* – 3.978 <u>https://doi.org/10.1007/s12640-021-00404-3</u>
- Ijomone OM, Iroegbu JD, Aschner M, Bornhorst J. Impact of environmental toxicants on p38-and ERK-MAPK signaling pathways in the central nervous system. *NeuroToxicology*, 2021; 86:166-171. *PubMed ID:* 34389354. Journal Impact Factor – 4.398. <u>https://doi.org/10.1016/j.neuro.2021.08.005</u>
- Ogunsuyi OB, Olagoke OC, Afolabi B, Oboh G, Ijomone OM, Barbosa NV, da Rocha JBT. Dietary inclusions of Solanum vegetables mitigate aluminum-induced redox and inflammation-related neurotoxicity in *Drosophila melanogaster* model. *Nutritional Neuroscience*, 2021; 25:2077–2091. *PubMed ID:* 34057051. Journal Impact Factor – 4.062. <u>https://doi.org/10.1080/1028415X.2021.1933331</u>
- Ijomone OM, Aluko OM, Okoh COA, Ebokaiwe AP. N^ω-nitro-L-arginine, a nitric oxide synthase inhibitor, attenuates nickel-induced neurotoxicity. *Drug and Chemical Toxicology*, 2021; 45:2202-2211. *PubMed ID: 34013798. Journal Impact Factor* – 2.597 <u>https://doi.org/10.1080/01480545.2021.1917382</u>
- Erukainure OL, Msomi NZ, Beseni BK, Salau VF, Ijomone OM, Koorbanally NA, Islam MS. Cola nitida infusion modulates cardiometabolic activities linked to cardiomyopathy in diabetic rats. *Food and Chemical Toxicology*, 2021; 154:112335. *PubMed ID: 34129900. Journal Impact Factor – 5.572.* <u>https://doi.org/10.1016/j.fct.2021.112335</u>
- 19. Morcillo P, Cordero H, **Ijomone OM**, Ayodele A, Bornhorst J, Gunther L, Macaluso FP, Bowman AB, Aschner M. Defective Mitochondrial Dynamics Underlie Manganese-Induced Neurotoxicity. *Molecular*

Neurobiology, 2021; 58:3270–3289. *PubMed ID: 33666854. Journal Impact Factor* – 5.682. https://doi.org/10.1007/s12035-021-02341-w

- Aluko OM, Pignataro A, De Introna M, Bisicchia E, Ijomone OM, Umukoro S, Ammassari-Teule M. Methyl jasmonate rescues structural alterations in cortico-limbic neurons produced by the unpredictable chronic mild stress model of depression. 2021; 7:1-6. *Journal of Systems and Integrative Neuroscience*. <u>https://doi.org/10.15761/JSIN.1000254</u>
- Aluko OM, Lawal SA, Ijomone OM, Aschner M. Perturbed MAPK signaling in ASD: impact of metal neurotoxicity. *Current Opinion in Toxicology*. 2021; 26:1-27. *PubMed ID: 34263087*. <u>https://doi.org/10.1016/j.cotox.2021.03.009</u>
- 22. Ijomone OK, Osahon IR, Okoh CO, Akingbade GT, **Ijomone OM.** Neurovascular dysfunctions in hypertensive disorders of pregnancy. *Metabolic Brain Disease*, 2021; 36:1109-1117. *PubMed ID:* 33704662. Journal Impact Factor 3.655. <u>https://doi.org/10.1007/s11011-021-00710-x</u>
- Olung NF, Aluko OM, Jeje SO, Adeagbo AS, Ijomone OM. Vascular dysfunction in the brain; implications for heavy metals exposure. *Current Hypertension Reviews*, 2021; 17:5-13. *PubMed ID:* 33632106. <u>https://doi.org/10.2174/1573402117666210225085528</u>
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- 54. Ijomone OM, Miah MR, Peres TV, Nwoha PU, Aschner M. Null allele mutants of trt-1, the catalytic subunit of telomerase in *Caenorhabditis elegans*, are less sensitive to Mn-induced toxicity and DAergic degeneration. *NeuroToxicology*, 2016; 57:54-60. PubMed ID: 27593554. *Impact Factor* 4.398. https://doi.org/10.1016/j.neuro.2016.08.016
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- 58. Onyije FM, Waritimi GE, Antoni DA, **Ijomone OM**, Nwoha PU. Histological alteration of the pulmonary alveoli, renal cortex and spleen following exposure to open refuse dump site. *Journal of Experimental and Clinical Anatomy*, 2015; 14(2):63-68. <u>http://dx.doi.org/10.4103/1596-2393.177020</u>
- 59. Esomonu UG, Ijomone OM, Mba C, Oranusi A. Estimation of stature using arm span length amongst Bekwara ethnic group of Cross River State, Nigeria. *Annals of Bioanthropology*, 2015; 3(2):55-58. <u>http://dx.doi.org/10.4103/2315-7992.173990</u>
- 60. Ayannuga OA, Oyekunle JA, **Ijomone OM**, Ibeachusim BI. Cadmium and lead toxicity; modulating roles of age and trace metals on Wistar cortical cells. *Environment and Pollution*, 2015; 4(3): 52-61. <u>https://doi.org/10.5539/ep.v4n3p51</u>
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- Ijomone OM, Olaibi OK, Mba C, Biose IJ, Tete SA, Nwoha PU. Chronic nicotine administration does not alter cognitive or mood associated behavioural parameters. *Pathophysiology*, 2015; 22(1): 57-63. *PubMed ID:* 25601213. <u>https://doi.org/10.1016/j.pathophys.2014.12.004</u>

- 63. Olaibi OK, **Ijomone OM**, Ajibade AJ. Histomorphometric study of stomach and duodenum of aspirin treated Wistar rats. *Journal of Experimental and Clinical Anatomy*, 2014; 13(1): 12-16. <u>http://dx.doi.org/10.4103/1596-2393.142923</u>
- 64. **Ijomone OM**, Olaibi OK, Nwoha PU. Effects of chronic nicotine administration on body weight, food intake and nitric oxide concentration in female and male rats. *Pathophysiology*, 2014; 21:185-190. *PubMed ID: 25159662*. <u>https://doi.org/10.1016/j.pathophys.2014.08.003</u>
- 65. Esomonu UG, **Ijomone OM**, Ude RA, Nandi EM. Anthropometric analysis of the nose of the Ejagham ethnic group in Cross River State, Nigeria. *Annals of Bioanthropology*, 2014; 2(1):13-16. <u>http://dx.doi.org/10.4103/2315-7992.143401</u>
- 66. Olaibi OK, Osuntokun OS, Ijomone OM. Effects of chronic administration of gabapentin and carbamazepine on the histomorphology of the hippocampus and striatum. *Annals of Neuroscience*, 2014; 21(2): 57-61. *PubMed ID:* 25206062. <u>https://dx.doi.org/10.5214%2Fans.0972.7531.210206</u>
- 67. Waritimi EG, Onyije FM, Atoni AD, **Ijomone OM**, Nwoha PU. Cerebellar and neuro-behavioural evaluation of adult wistar rats in long-term exposure to refuse dump site. *Journal of Anatomical Sciences*, 2014; 5(2):15-18.
- Ijomone OM, Olaibi OK, Biose IJ, Mba C, Umoren KE, Nwoha PU. Performance on motor associated behavioural tests following chronic nicotine administration. *Annals of Neuroscience*, 2014; 21(2): 42-46. *PubMed ID: 25206059*. <u>https://dx.doi.org/10.5214%2Fans.0972.7531.210203</u>
- 69. Olaibi OK, **Ijomone OM**, Olawuni IJ, Adewole SO, Akinsomisoye SO. Mucus secreting activity and nitric oxide concentrations of ethanol-injured pylorus and duodenum of Wistar rats pre-treated with Moringa oleifera. *Journal of Experimental and Integrative Medicine*, 2014; 4(2):123-130.
- 70. Olaibi OK, **Ijomone OM**, Adewole SO. Histological and Histomorphometric studies of ethanol-injured pylorus and duodenum of Wistar rats pre-treated with Moringa oliefera extract. *Al Ameen Journal of Medical Sciences*, 2014; 7(2):104-111.

2013

71. Ijomone OM and Obi AU. Kolaviron, isolated from Garcinia kola, inhibits acetylcholinesterase activities in the hippocampus and striatum of Wistar rats. *Annals of Neuroscience*, 2013; 20(2): 2-8. *PubMed ID:* 25206011. <u>https://doi.org/10.5214/ans.0972.7531.200203</u>

2012

72. **Ijomone OM**, Nwoha PU, Olaibi OK, Obi AU, Alese MO. Neuroprotective effects of kolaviron, a biflavonoid complex of Garcinia kola, on rats hippocampus against methamphetamine-induced neurotoxicity. *Macedonian Journal of Medical Sciences*, 2012; 5(1): 10-16.

Invited Lectures

- 1. Brain and Mind: A Cajal and a Pavlov. Keynote address at International Brain Awareness Event of The Ilorin Neuroscience Group, University of Ilorin, Ilorin, Nigeria, March 30 2023.
- 2. The Dynamic Early Career researcher: Adapting Contemporary skills for professional development in the biomedical sciences. Career Development Seminar at Department of Anatomy and Forensic Anthropology, University of Cross River, Okuku Campus, Nigeria, March 2 2023.
- 3. Metals and neurodevelopmental perturbations: huge lessons from tiny worms. Plenary at 19th Annual Conference of Neuroscience Society of Nigeria (NSN), Ibadan, Nigeria, July 31 August 3 2022.

- 4. Gut-microbiome role in neurodegenerative diseases: can the C. elegans provide new insights? Plenary at 19th Annual Conference of NSN, Ibadan, Nigeria, July 31 August 3 2022.
- 5. Prospect of Anatomy in "Developing World". Guest Lecture, ASSON Week of Department of Anatomy, Ekiti State University, Ado-Ekiti, Nigeria, November 24 2021.
- 6. Neurotoxic impact of nickel; elucidating molecular mechanisms. Faculty Seminar Series, School of Health and Health Technology (now School of Basic Medical Sciences), FUTA, Akure, Nigeria, March 2019.
- Evaluation of hippocampal and striatal histomorphology, acetylcholinesterase activities, and neurogenic markers following repeated administration of nicotine. IBRO Alumni Symposium at 12th International Conference of the Society of Neuroscientist of Africa (SONA), Durban, South Africa, 26 – 30 March, 2015.

Conferences/Courses Attended with Paper(s) Presented

- Annual meeting of the Society for Neuroscience, San Diego, USA, 12 16 November 2022. *Paper presented:* p38- and ERK-MAPK signalling modulate developmental neurotoxicity of nickel and vanadium in the *Caenorhabditis elegans* model.
- 2. TReND Workshop/Training on "Stereotactic Surgery in Laboratory Rat", Rivers State University, Nigeria, 12-15th October, 2022,
- 3. Humboldt Kolleg International Conference: Impact of AvH sponsored programmes and fellows on building sustainable economy based on science and research in sub-Saharan Africa, Akure, Nigeria March 21 23.
- 4. Virtual Humboldt New Mobility Conference, September 13-14 2021.
- Virtual network meeting of the Alexander von Humboldt-Foundation in cooperation with the University of Rostock, Germany, April 21 22, 2021
 Paper presented: Neurological consequences of heavy metal contamination in Nigeria's oil-rich region; delineating role
 for p38- and ERK- MAPK inflammatory pathways using the *C. elegans* model.
- 6. Federation or European of Neuroscience Societies (FENS) 2020 Virtual Forum, July 11 15, 2020.
- ISN School of Basic Neurosciences, on Functional Foods/ Nutraceuticals: Molecular Impact in the Management/Prevention of Neurodegenerative Diseases, Oct 20 – 26, 2019, FUTA, Akure, Nigeria. *Role: Co-Organizer and Speaker*
- 8. 14th International Conference of the Society of Neuroscientists of Africa (SONA) and 17th Annual Conference of the Neuroscience Society of Nigeria (NSN), March 24 28, 2019, Lagos, Nigeria. *Paper presented:* Nickel-induced developmental neurotoxicity in *C. elegans*; cholinergic, dopaminergic and GABAergic degeneration, altered behaviour, and increased SKN-1 activity
- 9. 10th Canadian Association of Neurosciences Annual Meeting, Toronto, Canada, May 29–June 1, 2016. *Paper presented:* Manganese-induced DAergic toxicity is reduced in *trt-1* mutation of *Caenorhabditis elegans*
- IBRO/USCRC 10th Canadian School of Neuroscience on Cell and Molecular Mechanisms of Neurological Diseases, May 18–27, 2016 Montreal, Canada, *Paper presented:* Mangenese induced DA ergis toxisity is reduced in tet 1 mutation of Case or hab disis closenes.

- 25th Biennial Meeting of the ISN jointly with the 13th Meeting of the Asian-Pacific Society for Neurochemistry in conjunction with the 35th Meeting of the Australasian Neuroscience Society, August 23– 27, 2015, Cairns, QLD, Australia.
 - Paper presented:

Hippocampal and striatal histomorphology, AChE and neurogenic markers activities following repeated administration of nicotine.

12. 13th ISN Advanced School of Neurochemistry on Synaptopathies - synaptic molecules with clinical implications, August 19-23, 2015, Mission Beach, QLD, Australia.

Paper presented:

Hippocampal and striatal histomorphology, AChE and neurogenic markers activities following repeated administration of nicotine.

13. 12th International Conference of the Society of Neuroscientist of Africa (SONA), 26th – 30th March, 2015, at Durban, South Africa.

Paper presented:

Evaluation of hippocampal and striatal histomorphology, acetylcholinesterase activities, and neurogenic markers following repeated administration of nicotine.

14. 5th International Neuroscience Conference of the Institute of Neuroscience and Biomedical Research (INBR), 28th – 31st July, 2014, Owerri, Imo State, Nigeria.

Paper presented:

A workshop on behavioural studies in laboratory mice and rats. (*Invited as resource person for pre-conference advanced workshop*)

15. 11th International Conference of the Society of Neuroscientist of Africa (SONA), 13th – 17th June, 2013, Rabat, Morocco.

Paper Presented: Kolaviron, isolated from *Garcinia kola*, inhibits acetylcholinesterase activities in the hippocampus and striatum of Wistar rats

- 16. IBRO-ARC/ISN Neuroscience School on Drugs of Addiction, 8th 12th June, 2013, Rabat, Morocco. *Paper Presented:* Effects of nicotine on behaviour, hippocampal microanatomy and neurogenesis in adult rats.
- 17. 10th Annual Conference and Scientific Sessions of the Anatomical Society of Nigeria (ASN), 7th 10th November 2012, Port Harcourt, Nigeria.
 Paper Presented:

Long term habitation in refuse dump damages major organs of Wistar rats

18. 1st IBRO School on Insect Neuroscience and Drosophila Neurogenetics, 20th August – 7th September, 2012, at Kampala International University, Ishaka, Bushenyi, Uganda.

Paper Presented:

Histomorphological Studies of the Hippocampus and Neurobehaviour of Nicotine Treated Wistar Rats (*a research proposal presentation*).

19. 4th International Neuroscience Conference of the Institute of Neuroscience and Biomedical Research (INBR), 1st – 5th July 2012, at Imo Concorde Hotel, Owerri, Nigeria.

Paper Presented:

Neuroprotective effects of kolaviron, a biflavonoid complex of *Garcinia kola*, on rats hippocampus against methamphetamine-induced neurotoxicity.

20. 9th Annual Conference and Scientific Sessions of the Anatomical Society of Nigeria (ASN), 21st-23rd September 2011, at the Obafemi Awolowo University, Ile-Ife, Osun, Nigeria.

Paper Presented:

Effects of methamphetamine on the hippocampus of rats: morphological and behavioural approach.

- 21. 3rd International Neuroscience Congress of the Institute of Neuroscience and Biomedical Research (INBR), 24th-30th July 2010, at Abuja, Nigeria.
 - *Paper Presented:* Morris water maze performance of growing Wistar rats exposed to telephone mast base station.

Membership of Professional Bodies:

- Member, Anatomical Society of Nigeria (ASN); 2011 Date
- Member, Neuroscience Society of Nigeria (NSN); 2019 Date
- IBRO Alumni, International Brain Research Organization (IBRO); 2012 Date
- Member, Society of Neuroscientist of Africa (SONA); 2013 Date
- Member, International Society for Neurochemistry (ISN); 2013 Date
- Member, Society for Neuroscience (SfN); 2015 Date
- Member, European Society for Neurochemistry (ESN); 2021 Date
- Member, Federation of European Neuroscience (FENS); 2021 Date
- Member, American Society for Neurochemistry (ASN); 2019 Date
- Member, International Society to Advance Alzheimer's Research and Treatment (ISTAART); 2022 Date

Other Notable Professional Contributions

Course/Symposium Organizer

- Organizer: A hands-on training on "Working with the C. elegans: the basics", 7 11 February, 2022, FUTA, Akure.
- Co-organizer: ISN School of Basic Neurosciences, on Functional Foods/ Nutraceuticals: Molecular Impact in the Management/Prevention of Neurodegenerative Diseases, Oct 20 – 26, 2019, FUTA, Akure, Nigeria.
- Assist to organize biennial conferences of Institute of Neuroscience and Biomedical Research (INBR), Owerri, Nigeria, since 2010.
- Assist to organize local brain bee competition for the International Brain Bee (IBB) Organization, in 2010 and 2012.

Peer-Reviewed Articles for

Biotechnic and Histochemistry; Neuroscience Letters; NeuroToxicology; IBRO Neuroscience Reports; Metabolic Brain Diseases; Critical Reviews in Toxicology; Biomedical and Environmental Sciences; Biomedicine and Pharmacotherapy; PlosOne; Environmental Toxicology; Human and Experiment Toxicology; Journal of Ethnopharmacology; Naunyn-Schmiedeberg's Archives of Pharmacology; Turkish Journal of Zoology; Journal of Food Biochemistry; Pathophysiology; Journal of Experimental and Clinical Anatomy (JECA); Biotechnic & Histochemistry; Journal of Toxicology (Hindawi).

External Examinership

Undergraduate

- BSc Anatomy, Department of Anatomy, Babcock University, 2023
- BNSc, Department of Nursing, National Open University Nigeria, 2019 2021.

Postgraduate

• MSc, Discipline of Optics and Imaging, School of Laboratory Medicine and Medical Sciences, University of KwaZulu-Natal, Durban, South Africa, November 2018.

Administration

Within the University

Federal University of Technology Akure	
Department of Human Anatomy:	
Examination Officer	2016 - 2017
Member, DTLC Committee	2016 - 2023
Examination Officer	Jan – June 2019
Chair, Quality Assurance Committee	2019 - 2023
Member, Appointment and Promotions Committee	2019 - 2023
Manual, Laboratory Manual Committee	2019 - 2023
Member, Examinations Committee	2019 - 2023
Member, Linkages/Advancement Committee	2019 - 2023
Registration Level Officer/Adviser, 300L	2018 - 2021
Registration Level Officer/Adviser, 300L	2021 - 2023
Chair, Curriculum Review Committee	2021 - 2023
Acting Head of Department	Aug 2022 – May 2023
School of Basic Medical Sciences:	
SHHT Representative, SAAT Board of Studies	2018 - 2021
Examination Officer	2019 - 2022
Member, Research Grant Committee	2019 - 2023
Member, Examinations Committee	2019 - 2023
University:	
Member, Task Force on Research Development and	
Industrial Linkage	2017
Member, Institution Animal Research Ethics Committee	2018 - 2023
Member, Committee for Preparation of Students for	2010 2020
National and International Competitions	2018 - 2023
Secretary, Sub-Committee on Review of Tetfund IBR	2010 2023
Applications (Young Researcher Category)	2019
Member, Center for Research and Development (CERAD)	2017
Funding Review Committee	2021 - 2023
School Representative on Senate Committee Tetfund	2021 - 2023
Sensor Representative on Senate Committee Terrand	2021 2023

Community Services

National Assignments

- RA Collation Officer, 2018 Osun State Governorship Election
- RA Collation Officer, 2019 General Election for Presidential, Federal and State House of Assembly, Ondo State.

Other Skills and Competencies

Computing Skills

- 15+ years of experience using Microsoft Office package (MS Word, MS PowerPoint, MS Excel, MS Publisher)
- 10+ years of experience in software installation and troubleshooting
- 10+ years of statistical analysis with GraphPad Prism Package

- 10+ years of image analysis with Image J, and similar imaging software
- Other relevant computing skills

Others

- Co-chaired the poster session on human and animal studies of addiction at 12th International Conference of the Society of Neuroscientist of Africa (SONA), 26th March 2015, Durban, South Africa.
- Set up neurobehavioural apparatus and pioneered the use of rodent behavioural techniques for research at the Department of Human Anatomy, Cross River University of Technology (2013).

Languages

English: superior levels in listening, speaking, reading, and writing. **Urhobo**: native language, intermediate speaker, advanced reading and writing, superior listening

Extra-Curricular Activities

Browsing, reading novels, writing, watching sports

Personal Details

Date/Place of Birth: 30th November, 1986 / Nigeria; *Sex/Marital Status*: Male / Married; *Next of Kin:* Dr Olayemi K. Ijomone (Spouse); *Children*: Sparkle – 7

Referees

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