

CURRICULUM VITAE - AHMED LAWAN, Ph.D.

Academic degrees:

B.Sc. Ahmadu Bello University, Nigeria (Neuroscience) 1995
M.Sc. Ahmadu Bello University, Nigeria (Cardiovascular Physiology) 2004
Ph.D. University of Strathclyde, U.K. (Cell Biology & Cardiovascular Disease) 2011

Professional Employment History:

2007-2011 Graduate Student. SIPBS, University of Strathclyde, U.K.
Role of MKP-2 in Cardiac Function

2011-2015 Postdoctoral Research Associate. Department of Pharmacology, Yale School of
Medicine. New Haven, CT. Regulation of Hepatic Metabolism by MKP-1

2015-2019 Associate Research Scientist. Department of Pharmacology, Yale School of
Medicine. New Haven, CT. Regulation of Skeletal Muscle Metabolism by MKP-1

2019 – present Assistant Professor, Department of Biological Sciences, UAH

Professional Membership:

2003 – Present American Physiological Society (APS)
2000 – Present Physiological Society of Nigeria (PSN)
2009 – Present The Biochemical Society

Honors and Awards:

2019-2021 New Faculty Research Program (UAH)

2013-2014 James Hudson Brown-Alexander Brown Coxe Postdoctoral Fellowship in the
Medical Sciences

2011 Federation of European Biochemical Societies Youth Travel Grant

2009-2010 University of Strathclyde Postgraduate Scholarships award

2007-2008 Kano State Government Postgraduate Scholarship

2005 International Union of Physiological Sciences (IUPS) Travel award

2004 International Society for Neurochemistry (ISN) Travel Fellowship

2003 International Brain Research Organization (IBRO) Travel Grant

2019 Fall – present: Courses Taught at UAH:

BYS313-01: Anatomy and Physiology I
Anatomy & Physiology BYS313Lab-02
BYS314-01: Anatomy and Physiology II
BYS691: Signal Transduction

2018 Yale Scientific Teaching Course: Theory and Practice of Scientific Teaching for Life Scientists

- Gained evidence-based approaches to engage students in their learning, to assess students outcomes, and to create an inclusive classroom in a semester-long course offered by the Yale Centre for Teaching and Learning.
- Designed, taught, and revised a lesson based on a challenging topic in undergraduate biomedical sciences.
- Developed interactive, peer-reviewed introductory module on super-resolution microscopy that has now been adopted to be taught to Yale undergraduates (March, 2019) under the course Experimental Techniques in Cell Biology.

2009-2011 Postgraduate Instructor:

- Whilst undertaking my Ph.D. at the Strathclyde Institute of Pharmacy and Biomedical Sciences (SIPBS), University of Strathclyde, United Kingdom, I have been involved with the teaching of Year 1 and 2 Pharmacy undergraduates in their practical classes. At any one time I have been personally responsible for as many 20 to 30 students.

2010- present Supervision of graduate and undergraduate students:

- Jan 2010-Feb 2011 Martin T.P. Ph.D. student from SIPBS, University of Strathclyde, U.K.
- Oct 2011-Dec 2014 Florian Gatzke MD, from Goethe-Universitat Frankfurt a. main
- Oct-Dec 2014 Xiuqi Li, PhD student now in the Department of Pathology, Yale School of Medicine
- Oct-Dec 2016 Alexandria Boering, undergraduate student from Sacred Heart University, Fairfield Connecticut
- June-July 2017 Antonio Bando, undergraduate student from Arizona State University.
- June-August 2018 Olumide Ayeni, undergraduate student from University of Illinois.
- Fall 2019 – present Savanie Y. Fernando, Gabrielle Westernberger, Federick Griffins and Josiah Lane graduate students Department of Biological Sciences, UAH.

2001-2004 Undergraduate Teaching:

- Whilst undertaking my M.Sc. degree at Ahmadu Bello University I have been involved in teaching of physiology courses: introduction to physiology, excitable tissues, cardiovascular, renal, endocrine and respiratory systems to Medical, Physiology, Anatomy, Nursing and Physical and Health Education students. At any one time I have been personally responsible for as many as 50 to 100 students. In addition I also supervised 8 undergraduate projects in physiology.

Areas of Research Interest and Expertise

- Regulation of lipid metabolism by MKPs in physiology and disease.
- Gut-liver axis connection in the development of fatty liver disease.
- Identify and characterize novel MKP/MAPK substrates in lipid metabolism.
- Identify targets and design therapies for treating metabolic and cardiovascular diseases.

Selected Peer Reviewed Publications:

1. Anton M. Bennett and **Ahmed Lawan**. 2020 Improving Obesity and Insulin Resistance by Targeting Skeletal Muscle MKP-1. **J Cell Signal** 1(4): 160-168. PubMed PMID: [33179019](#)
2. **Ahmed Lawan**, Kisuk Min, Lei Zhang, Alberto Canfran-Duque, Michael J. Jurczak, Joao Paulo G. Camporez Yaohui Nie, Timothy P. Gavin, Gerald I. Shulman, Carlos Fernandez-Hernando, Anton M. Bennett. 2018. Skeletal muscle-specific deletion of MKP-1 reveals a p38 MAPK/JNK/Akt signaling node that regulates obesity induced insulin resistance. **Diabetes** 67:624-635. PubMed PMID: [29317435](#)
3. **Ahmed Lawan**, Anton M. Bennett. 2017. Mitogen-Activated Protein Kinase Regulation in Hepatic Metabolism. **Trends Endocrinol Metab.** 28 (12): 868-878 PubMed PMID: [29128158](#)
4. Kisuk Min, **Ahmed Lawan**, Anton M. Bennett. 2017. Loss of MKP-5 promotes myofiber survival by activating STAT3/Bcl-2 signaling during regenerative myogenesis. **Skelet Muscle.** 7 (1): 21. PubMed PMID: [29047406](#)
5. **Lawan A.**, Zhang L., Gatzke F, Min, Kisuk, Jurczak M.J., Al-Mutairi M, Richter P, Camporez J.P.G, Couvillon A, Pesta D, Flach R.J.R, Shulman, G.I., and Bennett A.M. 2015. Hepatic MAP kinase phosphatase-1 Selectively Regulates Glucose Metabolism and Energy Homeostasis. **Mol Cell Biol.** 35 (1): 26-40. PubMed PMID: [25312648](#)
6. Lee H, Yi JS, **Lawan A**, Min K and Bennett AM. 2015. Mining the function of protein tyrosine phosphatases in health and disease. **Semin Cell Dev Biol.** 37: 66-72 PubMed PMID: [25263013](#)
7. **Ahmed Lawan**. 2015. Role of MAP Kinase Phosphatase-1 in health and disease. **J. Afr. Ass. Physiol. Sci.** 3 (2): 61-66
8. Martin, T.P., **Lawan, A.**, Robinson, E., Grieve, D.J., Plevin, R., Paul, A., and Currie, S. 2014. Adult cardiac fibroblast proliferation is modulated by calcium/calmodulin-dependent protein kinase II in normal and hypertrophied hearts. **Pflugers Archive-European Journal of Physiology.** 466 (2): 319-330. PubMed PMID: [23881186](#)
9. **Lawan, A.**, Shi, H., Gatzke, F., and Bennett, A. M. 2013. Diversity and specificity of the mitogen-activated protein kinase phosphatase-1 functions, **Cell Mol Life Sci.** 70 (2): 223-237.
10. **Lawan, A.**, Torrance, E., Al-Harhi, S., Shweash, M., Alnasser, S., Neamatallah, T., Schroeder, J., and Plevin, R. 2012. MKP-2: out of the DUSP-bin and back into the limelight, **Biochem Soc Trans** 40, 235-239. PubMed PMID: [22260697](#)
11. Umar H. A., Eze E. D., **Ahmed L.**, Isa A. S. and Ibrahim S. M. (2012). Endosulfan-Induced Changes in Sperm Count, Testicular Weight and Some Erythrocyte Indices in Male Guinea Pigs. **British Journal of Pharmacology and Toxicology**, 3(4): 151-155
12. **Lawan A.**, Al-Harhi, S., Cadalbert, L., McCluskey, A. G., Shweash, M., Grassia, G., Grant, A., Boyd, M., Currie, S., and Plevin, R. 2011. Deletion of the Dual specific phosphatase-4 (DUSP-4) gene reveals an essential non-redundant role for MAP kinase phosphatase-2 (MKP-2) in proliferation and cell survival. **J Biol Chem** 286, 12933-12943. PubMed PMID: [21317287](#)
13. **Lawan A.**, Ali, M. A., Dan Bauchi, S. S. 2006. QT Dispersion in Dynamic and Static Group of Athletes. **Nig. J. Physical. Sci.** 21(1-2): 5-8, 2006. PubMed PMID: [17242726](#)
14. **A. Lawan**, U. A. Katsayal, A. H. Yaro. 2004. Anti-inflammatory and anti-nociceptive effects of the methanolic extract of stem bark of *Ficus vallis-choudae*. **Journal of Neurochemistry** 90, 142.

Book Chapters:

15. **Ahmed Lawan** and Anton M. Bennett. "Mitogen-Activated Protein Kinase Phosphatases in Metabolism", Chapter in Protein Tyrosine Phosphatase Control of Metabolism, ed. Kendra K. Bence. Springer Press, ISBN 978-1-4614-7854-6, pages 221-238, August 2013.

Spring/Summer 2021: Papers in preparation for submission for publication

1. Regulation of sterol regulatory element binding proteins by hepatic MKP-1 in fasted and refed mice (AJEM)
2. Role of MKP-2 in glucose metabolism and stress-induced insulin resistance (Cell reports/Diabetes)
3. Role of MKP-2 in hepatic inflammatory response to fasting in mice (AJEM)
4. Impact of MKP-2 on cellular senescence and metabolic abnormalities (JBC)

Professional Service:

Ad hoc reviewer: Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy, Int. Journal of Mol. Sci., Journal of Biomedical Materials and Research Part A, Molecular and Cellular Endocrinology, PLOS ONE, American Journal of Research in Medical Sciences, The Open Diabetes Journal, Journal of African Association of Physiological Sciences.