



**NAME** Damilola Deborah ADINGUPU

### COMPLETED ACADEMIC DEGREES

Degree Name	Subject Area	Where Completed	Date of Completion
PhD in Medical Studies	Physiology	Peninsula College of Medicine, University of Exeter and University of Plymouth, United Kingdom	June 2013
Applied Biomedical Science	Biosciences	University of Lincoln, United Kingdom	July 2009
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### ADVANCED STUDIES IN PROGRESS

Degree Name	Subject Area	Where Enrolled	Est. Completion Date
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### ACADEMIC APPOINTMENT

Appointment Level	Institution	Dates (Yr to Yr)	Subject Area
Assistant Professor	Ambrose University	2024	Biology
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### ADMINISTRATIVE APPOINTMENTS

Appointment Level	Institution	Dates (Yr to Yr)
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Research Associate	Radiology, Cumming School of Medicine University of Calgary	2019 to date

## TEACHING EXPERIENCE

Institution	Dates (Yr to Yr)	Courses Taught (Course # and Name)
University of Exeter Medical School	2012 – 2013	Research Methods and Methodologies Vascular Laboratory Facilitator
Ambrose University	Sept 2019 – May 2020 Sept 2022 – to date	Human Physiology 1 &2, Integrative Physiology Human Anatomy & Physiology 1&2, Introduction to Plant and Organismal Biology, Pathophysiology
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## SCHOLARLY PARTICIPATION

### Books Authored or Edited

Dates (Yr to Yr)	Activity (Name of book, publisher etc)
2023	Adingupu, D., & Adingupu, I. (2023). Thriving Relationships: A Couples Guide to Relational Transformation. Friesen Press. <a href="https://books.friesenpress.com/store/title/119734000367353149/Damilola-Adingupu-and-Ifechukwude-Adingupu-Thriving-Relationships">https://books.friesenpress.com/store/title/119734000367353149/Damilola-Adingupu-and-Ifechukwude-Adingupu-Thriving-Relationships</a>
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### Refereed Publications

Dates	Activity (Name of article and journal)
2023	Temporal pattern of cortical hypoxia in Multiple Sclerosis and its significance on neuropsychological and clinical measures of disability. <i>Ann Neurol.</i> 2023 Aug 22. doi: 10.1002/ana.26769. PMID: 37605937
2023	Brain hypoxia, neurocognitive impairment, and quality of life in people post-COVID-19. <i>J Neurol.</i> 2023 May 21:1–12. doi: 10.1007/s00415-023-11767-2.
2022	Non-invasive detection of persistent cortical hypoxia in Multiple Sclerosis using frequency domain near-infrared spectroscopy (fdNIRS). <i>Advances in Experimental Medicine and Biology</i> , doi: 10.1007/978-3-031-14190-4_15
2022	NIRS studies show reduced interhemispheric functional connectivity in individuals with Multiple Sclerosis that exhibit cortical hypoxia. <i>Advances in Experimental Medicine and Biology</i> , doi: 10.1007/978-3-031-14190-4_25
2022	Carotid-Femoral pulse wave velocity acquisition methods and their association with cardiovascular risk factors and subclinical biomarkers of vascular health. <i>Journal of Hypertension</i> , doi: 10.1097/HJH.0000000000003055
2021	Cerebral small vessel disease, systemic vascular characteristics, and potential therapeutic targets. <i>Aging</i> , doi: 10.18632/aging.203557
2021	Intestinal sodium/glucose cotransporter 3 expression is epithelial and downregulated in obesity. <i>Life Sciences</i> , 267. doi: 10.1016/j.lfs.2020.118974.
2020	Weight change and sulfonylurea therapy are related to 3 year change in microvascular function in people with type 2 diabetes. <i>Diabetologia</i> , 63(6), 1268-1278. doi: 10.1007/s00125-020-05125-

February 2019	SGLT2 inhibition with empagliflozin improves coronary microvascular function and cardiac contractility in prediabetic ob/ob-/- mice. <i>Cardiovasc Diabetol</i> , 18(1):16.
June 2017	Radial artery intima-media thickness regresses after secondary prevention interventions in patients' post-acute coronary syndrome and is associated with cardiac and kidney biomarkers. <i>Oncotarget</i> , 8(32)
September 2017	The impact of cardiovascular co-morbidities and duration of diabetes on the association between microvascular function and glycemic control. <i>Cardiovasc Diabetol</i> , 16: 114
June 2016	Reactivity to low-flow as a potential determinant for brachial artery flow-mediated vasodilatation. <i>Physiol Rep</i> , 4.
September 2016	Hyperglycemia Induced by Glucokinase Deficiency Accelerates Atherosclerosis Development and Impairs Lesion Regression in Combined Heterozygous Glucokinase and the Apolipoprotein E-Knockout Mice. <i>Journal of Diabetes Research</i> 2016: 11.
May 2015	Blood Oxygen Saturation After Ischemia is Altered With Abnormal Microvascular Reperfusion. <i>Microcirculation</i> 22(4): 294-305.
January 2012	Microcirculation on a Large Scale: Techniques, Tactics and Relevance of Studying the Microcirculation in Larger Population Samples. <i>Microcirculation</i> , 19, 37-46.
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### Non-Refereed Publications

Dates	Activity (Name of article and journal)
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### Conference Presentations

Dates	Activity (Name of article and journal)
2024	Detection of abnormalities in the post-acute COVID brain using functional and frequency domain near-infrared spectroscopy. Abstract at the Third Britton Chance International Symposium on Metabolic Imaging and Spectroscopy, Smilow Center for Translational Research, Philadelphia.
2023	Reduced cortical oxygen, hemoglobin, and impaired cognitive function in post COVID-19 sequelae. Abstract at Vascular Training Platform Conference, Montreal, Canada.
2023	Investigating brain hypoxia and functional connectivity in individuals who have had COVID-19. Abstract at Vascular Training Platform Conference, Montreal, Canada.

2022	Reduced cerebral tissue oxygen saturation correlates with impaired cognitive function in people with post-COVID-19 condition. Abstract and Oral Presentation at The International Society on Oxygen Transport to Tissue (ISOTT), (International meeting), Ascona, Switzerland.
2021	Reduced functional connectivity and frequency-spectrum magnitude in individuals with Multiple Sclerosis that exhibit cortical hypoxia. Abstract and Oral Presentation at Alberta MS Network 2021 Scientific Forum, Banff, Canada.
2021	Applications of Near-Infrared Spectroscopy in Multiple Sclerosis. Abstract and Oral Presentation at the 22 <sup>nd</sup> Annual Alberta BME Conference, Banff, Canada.
2021	Increased light scattering in multiple sclerosis measured by near-infrared spectroscopy may indicate mitochondrial swelling. Abstract and Poster Presentation at CAN-ACN 2021 virtual meeting.
2021	Non-invasive detection of persistent cortical hypoxia in multiple sclerosis using frequency domain near-infrared spectroscopy (fdNIRS). Abstract at The International Society on Oxygen Transport to Tissue (ISOTT), Virtual.
2021	NIRS studies show reduced interhemispheric functional connectivity in Multiple Sclerosis patients that exhibit cortical hypoxia. Abstract and Oral Presentation at The International Society on Oxygen Transport to Tissue (ISOTT), Virtual.
2021	Persistent hypoxia over a year period in multiple sclerosis. Abstract and Poster Presentation at the tenth international meeting on Cerebral Haemodynamic Regulation, Virtual.
2021	Removing non-neural hemodynamic data from neuron-associated hemodynamic activation using functional near-infrared spectroscopy (fNIRS). Abstract and Poster Presentation at the tenth international meeting on Cerebral Haemodynamic Regulation, Virtual.
2020	Investigating the temporal relationship between inflammation and fdNIRS-measured hypoxia in an MS population. Abstract and Oral Presentation at 8 <sup>th</sup> Joint ACTRIMS-ECTRIMS Meeting, Virtual.
2020	Could light scattering measured with frequency-domain near-infrared spectroscopy provide new information on cerebral edema in MS? Abstract and Oral Presentation at 8 <sup>th</sup> Joint ACTRIMS-ECTRIMS Meeting, Virtual.
2017	SGLT2 inhibition with Dapagliflozin improves coronary vascular derangement in the leptin-deficient ob/ob mice. Abstract and Poster at American Heart Association Scientific Sessions, (International Meeting), Anaheim, California.
2017	SGLT2 inhibition improves coronary microvascular function and contractile function in pre-diabetic mice. Abstract and Poster at European Society of Cardiology Congress (International Meeting), Barcelona, Spain.
2014	Compound effect of reperfusion autoregulatory abnormality and high pulse pressure on end organ. Abstract and Poster at The European and the International Societies of Hypertension (International Meeting), Athens, Greece.
2014	Effect of reperfusion autoregulatory abnormality and high pulse pressure on renal function. Abstract and Poster at British Microcirculation Society Conference (National Meeting), Bristol, United Kingdom.

2013	Microvascular autoregulatory response to ischemia and pulse pressure. Abstract and Poster at British Hypertension Society Annual Scientific Meeting (National Meeting), Greenwich, United Kingdom.
2013	Microvascular autoregulatory response to ischemia in the skin and association with mean blood oxygen saturation. Abstract and Poster at British Hypertension Society Annual Scientific Meeting (National Meeting), Greenwich, United Kingdom.
2013	Cutaneous microvascular regulatory response to ischemia and association with mean oxygen saturation. Abstract and Poster at the 37th Congress of the International Union of Physiological Sciences (International Meeting), Birmingham, United Kingdom.
2013	The prevalence of abnormal microvascular response (peaks) in stroke or transient ischemic attack (TIA) patients compared with Controls and association with impaired sympathetic activity. Abstract and Poster at the 22nd European Stroke Conference (International Meeting), London, United Kingdom.
2012	The prevalence of microvascular autoregulatory disturbance in those with TIA, stroke and type 2 diabetes compared to healthy controls. Abstract and Poster for Joint Meeting of the British and American Microcirculation Societies (International Meeting), Oxford, United Kingdom.
2011	Post occlusive microvascular autoregulatory dysfunction is not associated with endothelium dependent or independent vasodilatation. Abstract and Poster at the Joint Meeting of the European Society of Microcirculation (ESM) and the Society of Microcirculation and Vascular Biology (GfMVB) (International Meeting), Munich, Germany.
2011	Abnormal cutaneous post ischemic microvascular autoregulatory responses are associated with impaired sympathetic tone. Abstract and Poster at the 16th Annual Meeting of the ECCR (International Meeting), Nice, France.
2011	Post ischemic microvascular autoregulatory abnormalities are associated with impaired sympathetic activity. Abstract and Poster at Young Life Scientist Symposium (National Meeting), Birmingham, United Kingdom.
2011	Prevalence of skin microvascular autoregulatory dysfunction in patients who suffer stroke compared to the general population. Abstract and Poster at the British Geriatric Society autumn meeting (National Meeting), Brighton, United Kingdom.
2010	Abnormal reactive hyperemia response morphology occurs in the calf. Abstract and Poster at the ninth World Congress of Microcirculation (International Meeting), Paris, France.
2010	Comparison of Moor VMS and DRT4 fluximeter, for the assessment of skin microcirculation. Abstract and Poster at British Microcirculation Society Meeting (National Meeting), Exeter, United Kingdom.
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## Research Grants

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## ACADEMIC AND PROFESSIONAL PRESENTATIONS

Dates	Name of Presentation to Name of Organization
September 2022	The International Society on Oxygen Transport to Tissue (ISOTT). Reduced cerebral tissue oxygen saturation correlates with impaired cognitive function in people with post-COVID-19 condition.
July 2021	Virtual Presentation, The International Society on Oxygen Transport to Tissue (ISOTT). Non-invasive detection of persistent cortical hypoxia in multiple sclerosis using frequency domain near-infrared spectroscopy (fdNIRS).
April 2016	Sixty Sixth Annual Meeting of the British Microcirculation Society, Newcastle, UK. Oral Presentation: Effect of standard of care treatment on in-vivo coronary vascular function in GK-APOE mice; a novel model of diabetes and atherosclerosis, using non-invasive high-resolution ultrasound.
September 2013	British Hypertension Society, Greenwich, UK. Oral presentation: Microvascular autoregulatory response to ischemia in the skin and association with mean blood oxygen saturation.
July 2013	International Early Career Symposium, IUPS 2013, Birmingham, UK. Oral presentation: Microvascular regulatory response to ischemia and association with cutaneous oxygen saturation.
May 2011	Young Life Scientist Symposium, Birmingham, UK. Oral presentation: Post ischemic microvascular autoregulation abnormalities are associated with impaired sympathetic activity.
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## PROFESSIONAL MEMBERSHIPS, QUALIFICATIONS and EXPERIENCE

Professional Memberships
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Professional Qualifications
Diploma Certificate Laboratory Animal Science, September 2015
Clinical research: Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics (TCPS 2: CORE), May, 2019

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<b>Professional Experience</b>
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Experienced in pre-clinical studies using rodent models of diabetes
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Experienced in conducting clinical research
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Practical experience with non-invasive vascular assessment techniques.
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Practical experience in myography and tissue dissection
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Experienced in performing real-time PCR
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