

Maclean Vokhiwa, MPH



Developmental Neuroscience PhD Fellow – Low-Field MRI | Psychologist | Public Health Researcher | Accessible Neuroimaging

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Professional Profile

Maclean Vokhiwa is a Malawian developmental neuroscience doctoral researcher, psychologist, and public health researcher focused on accessible neuroimaging and equitable measurement of child brain development and neurocognitive outcomes in low-resource settings. He is an African Leadership in Measuring brain health for children and Adolescents (ALMA) PhD Fellow based in the Department of Pediatrics and Child Health at Kamuzu University of Health Sciences, and the Training and Research Unit of Excellence (TRUE), Malawi, working within the Ultra-low-field Neuroimaging In The Young (UNITY) initiative to advance child neurodevelopment research using mobile ultra-low-field MRI in low- and middle-income countries.

Based in Zomba, southern Malawi, he provides research and clinical oversight for a mobile 64 mT MRI platform integrated into infant neurodevelopment studies and clinical neurodiagnostic workflows. His doctoral research includes first-author publications in *Global Epidemiology* and the *Journal of Magnetic Resonance Open*, demonstrating the feasibility, image quality, analytic usability, and clinical integration of low-field mobile 64 mT MRI for infant and paediatric brain imaging in a low-resource African setting. His broader work spans neurocognitive and educational assessment, iron-deficiency anaemia, cerebral malaria, infectious disease, placental pathology, environmental toxicities, teaching, mentorship, scientific dissemination, regional capacity strengthening, counselling, tinnitus support, and Employee Assistance Programmes.

Selected Career Highlights

- First-author publications (2026) in the *Journal of Magnetic Resonance Open* demonstrating the feasibility, image quality, analytic usability, and clinical integration of mobile 64 mT ultra-low-field MRI for infant and paediatric brain imaging in a low-resource African setting.
- First author of a 2026 systematic review in *Global Epidemiology* examining neurodevelopmental measurement among iron-deficient children in sub-Saharan Africa.
- Recipient of the 2026 ISMRM Summa Cum Laude Merit Award and the 2024 ISMRM Magna Cum Laude Merit Award for work advancing accessible MRI and clinical neuroimaging in Africa.
- 2025 ISMRM-Gates Foundation Knowledge Exchange Fellow and 2024-2025 Oxford Centre for Integrative Neuroimaging (OxCIN) Global Scholar.
- Provides oversight for research and clinical use of a mobile 64 mT MRI platform at TRUE/Zomba Central Hospital within the global UNITY initiative.
- Contributed to peer-reviewed work in *Journal of Magnetic Resonance Open*, *Global Epidemiology*, *JAMA Network Open*, *Nature Medicine*, *Human Brain Mapping*, *Developmental Cognitive Neuroscience*, *PLOS Global Public Health*, *EClinicalMedicine*, *The Lancet*, and other journals.
- Founder and consultant of Lifeing (formerly *Corporate Wellness Solutions*), providing counselling, Employee Assistance Programmes, workplace mental health, organisational wellbeing, and training services in Malawi.

Core Areas of Expertise

- Developmental neuroscience and early child brain development
- Mobile 64 mT low-field MRI research, clinical implementation, and neuroimaging access in low-resource settings
- Infant and paediatric brain imaging, including non-sedated MRI workflows and clinical neurodiagnostic integration
- Neurocognitive, developmental, educational, executive-function, and disability assessment
- Cross-cultural assessment adaptation, psychometric measurement, and measurement equity
- Iron-deficiency anaemia, malaria, infectious disease, placental pathology, environmental toxicities, and early-life developmental risk research
- Public health research, including cohort studies, randomised trials, observational studies, and implementation science
- MRI image-quality assessment, radiological workflow coordination, brain morphometry, and Low-Field MRI analytic usability
- Teaching, mentorship, research-team leadership, assessor training, field supervision, and quality assurance
- Scientific writing, conference dissemination, manuscript development, and research capacity strengthening
- Counselling and therapy, Employee Assistance Programmes, workplace mental health, and organisational wellbeing
- Tinnitus assessment, counselling, management support, and behavioural therapies

Education and Academic Qualifications

PhD, Developmental Neuroscience (Candidate) | *Research commenced 2022; formal registration April 2024 – Present*
 Kamuzu University of Health Sciences (KUHeS), Malawi;

Department of Paediatrics and Child Health, School of Medicine and Oral Health

- PhD by publication focused on accessible neuroimaging and measurement equity for assessing early brain development and neurodevelopmental outcomes among infants and children exposed to iron-deficiency anaemia and related early-life developmental risks in southern Malawi.
- Doctoral research integrates systematic-review evidence, mobile 64 mT ultra-low-field MRI feasibility, image quality and analytic usability, clinical neurodiagnostic implementation, brain morphometry, and longitudinal developmental analysis.
- Primary supervisor: Associate Professor Eric Umar, KUHeS School of Global and Public Health.
- Secondary supervisor: Professor Kamija S. Phiri, KUHeS / Training and Research Unit of Excellence.
- Technical supervision and scholarship: University of Oxford / Oxford Centre for Integrative Neuroimaging, including low-field MRI, neuroimaging analysis, and FSL adaptation support from Frederik Lange and Professor Karla Millar.

Master of Public Health (MPH) | 2020

College of Medicine, University of Malawi

Bachelor of Arts (BA), Psychology and Philosophy | 2003

Chancellor College, University of Malawi

Academic, Research, Clinical, and Professional Appointments

Visiting Researcher – Neuroscience | *November 2025 – May 2026*

Aga Khan University – Institute for Human Development (AKU-IHD), Nairobi, Kenya

- Undertook protected research and writing time to advance PhD manuscripts, thesis outputs, and regional neuroscience collaborations.
- Engaged in South-South collaboration and early-stage discussions on how accessible low-field MRI could complement emerging neuroscience protocols and laboratory capacity in regional research settings.

Part-time Lecturer – Psychology (BEH 115) | *February 2025 – Present*

Kamuzu University of Health Sciences, Blantyre and Lilongwe Campuses

- Teaching, learning-material development, examination preparation, invigilation, marking, and student support for Introduction to Psychology.

Consultant – Roster for Consultants, Brain Health Unit | *1 October 2024 – Present*

World Health Organization, Geneva, Switzerland

- Roster areas include neurodevelopmental assessment and monitoring, early childhood development, and brain neuroimaging and functioning.
- Current roster/contract status and expiry: ongoing.

PhD Research Fellow – Neuroscience | *March 2024 – Current*

African Leadership for Measuring Brain Health in Children & Adolescence (ALMA), Department of Paediatrics and Child Health, KUHeS

- Conducts child brain-growth and neurodevelopment research using ultra-low-field MRI.
- Mentors Master's-level and postgraduate fellows and supports research capacity development.
- Administrative fellowship/contract end date or extension status: April 2026, under extension to April 2027.

Tinnitus Counselling and Support Provider | *August 2023 – Present*

Queen Elizabeth Central Hospital Audiology Clinic, Blantyre, Malawi

- Provides tinnitus assessment, counselling, management support, behavioural strategies, and support-group facilitation.

Team Leader / PhD Fellow – Neurodevelopment and Neuroimaging | *2019 – Present*

Training and Research Unit of Excellence (TRUE), Zomba, Malawi

- Provides neuroimaging oversight using portable 64 mT MRI for research and clinical applications.
- Leads neurocognitive, developmental, educational, and disability outcome assessments.
- Trains and supervises research teams in infant imaging, child-development measurement, standardisation, and quality control.

Founder and Consultant | *2006 – Present*

Lifeing, Malawi

- Provides counselling, therapy, Employee Assistance Programmes, corporate wellness, workplace mental health, trauma support, resilience training, organisational wellbeing services, and outdoor wellness activities.
- Selected clients include Old Mutual Malawi Limited, Telekom Networks Malawi, African Parks, CDH Investment Bank, First Capital Bank, and other institutional and corporate clients.

Psychologist Clinical Intern | October 2005 – 2008*Zomba Mental Hospital, Malawi***Social Work Field Supervisor** | 2004 – 2005*The Samaritan Trust / UNICEF Malawi Orphans and Vulnerable Children Pilot Survey – Street Children Project*

- Supervised field social-work activities within the Malawi Orphans and Vulnerable Children Pilot Survey / MOPS project.

Fellowships, Scholarships, Awards, and Distinctions**ISMRM Summa Cum Laude Merit Award** | May 2026*International Society for Magnetic Resonance in Medicine Annual Meeting, Cape Town, South Africa*

- Awarded for “MRI in Clinical Practice: Diagnosis & Management Insights from ultra-Low-Field Brain MRI in a Low-Resource Hospital in Malawi.”

DELTAS-Africa Research Excellence Award | July 2025*Science for Africa / DELTAS-Africa Scientific Meeting, Cape Town, South Africa***ISMRM–Gates Foundation Knowledge Exchange Fellowship** | 1 February 2025 – 31 May 2026*International Society for Magnetic Resonance in Medicine / Gates Foundation; University of Oxford*

- Focused on neuroimaging data analysis, adaptation of FSL analysis tools for ultra-low-field MRI data, and refinement of global neuroimaging training.
- Original fellowship period extended through 31 May 2026.

Global Scholar, Oxford Centre for Integrative Neuroimaging | 4 October 2024 – June 2025*University of Oxford, United Kingdom*

- Participated in the MRI Graduate Programme, research collaboration, career development, MRI physics, analysis, interpretation, and neuroscience activities.

ISMRM Magna Cum Laude Merit Award | May 2024*International Society for Magnetic Resonance in Medicine Annual Meeting, Singapore*

- Awarded in the scientific session on technology and global MRI access for research on ultra-low-field MRI measurement of child neurodevelopment at 3 and 12 months in southern Malawi.

3rd Best PhD Oral Presentation | 2024*KUHeS Research Dissemination Conference, Malawi*

- “Clinical Pediatric Neuroimaging Using Ultra-Low-Field MRI in Malawi.”

3rd Best PhD Poster Presentation | 2024*KUHeS Research Dissemination Conference, Malawi*

- “Reliability of Ultra-Low-Field MRI for Measuring Child Neurodevelopment at 3 and 12 Months in Southern Malawi.”

PhD Support Programme, Second Edition | 2022*Centre of Excellence for Nutrition, North-West University, Potchefstroom, South Africa*

- Received doctoral training and development support through the programme.

Research Leadership, Project Roles, and Study Experience**Principal Investigator – Doctoral Research** | April 2022 – Present*Examining Neurodevelopmental Outcomes Among Children Under 5 Years of Age Exposed to Iron-Deficiency Anaemia in Southern Malawi – KUHeS*

- Leads a PhD-by-publication programme integrating systematic review, longitudinal infant MRI, clinical ULF-MRI, and developmental outcome research.

Principal Investigator | May 2024 – May 2025*Adapting Executive Function Test (EF Touch) to Early Primary School-Age Children – Malaria Alert Centre, KUHeS*

- Leads adaptation and feasibility work for tablet-based executive-function measurement among Malawian primary school-age children.
- Focuses on contextual adaptation, test administration, neurocognitive measurement, and educational outcomes.

Co-Investigator and Team Leader | March 2023 – Present*Impact of Socio-Biological Risk Factors on Infant Development in Low-Income Countries – Birth Cohort (BICO) Study, TRUE*

- Leads and supports infant developmental measurement, longitudinal follow-up, field-team implementation, and integration of accessible neuroimaging.

Co-Investigator | February–September 2022; January 2023 – Dec 2024

Comparing Chemoprevention Approaches for School-Based Malaria Control in Machinga District, Malawi – University of Maryland School of Medicine, KUHeS, and TRUE

- Contributed to cognitive, educational, and child-health outcomes research linked to school-based malaria prevention.
- Study/project end date and current role status: completed.

Neuroimaging and Cognitive Assessments Lead | January 2022 – Present

REVAMP-TT: Randomized Controlled Trial of Intravenous Iron for Anaemia in Malawian Pregnant Women in Their Third Trimester – WEHI, Australia, and TRUE

- Leads and supports infant neuroimaging, developmental and cognitive assessment components, quality assurance, and longitudinal outcome measurement.

Cognitive Assessments Lead | October 2019 – November 2023

IRMA: Benefits and Safety of Iron Supplementation with Malaria Chemoprevention to Children in Malawi – WEHI, Australia, and TRUE

- Led cognitive and developmental assessment implementation, assessor training, standardisation, quality control, and outcome measurement.

Research Affiliate | July 2012 – 2017

International Centre for Behavioral Studies

- Contributed to research and applied work in psychology, medicine, special education, and cross-cultural cognitive assessment.

Co-Investigator | July 2012 – 2015

Early Treatment with Rectal Artesunate to Halt Disease Progression and Reduce Disability in Survivors: Neurocognitive Assessment of Children in Study 13 – WHO-TDR, MORU, NIMR Tanzania, and MRG Bangladesh

- Supported multinational neurocognitive assessment and cross-cultural measurement among children exposed to severe malaria and related neurological risk.

Co-Investigator / Study Manager | January 2010 – July 2012

Cognitive Outcomes and Psychiatric Symptoms (COPS) of Cerebral Malaria – Blantyre Malaria Project, Queen Elizabeth Central Hospital

- Managed study implementation and supported neurocognitive and psychiatric outcome research among children affected by cerebral malaria.

Co-Investigator | October 2005 – May 2006

Association Between Maternal Mental Health (Depression) and Infant Nutrition – College of Medicine, Malawi / University of Manchester, UK

- Contributed to psychological measurement, field implementation, and maternal-infant health research.

Doctoral Research Portfolio and Current Manuscripts

Thesis focus: Accessible neuroimaging, measurement equity, clinical integration, and developmental insight in early child neurodevelopment research in sub-Saharan Africa.

Paper 1 – Systematic Review | Published, 2026

- “Measuring Neurodevelopment in Iron-Deficient Children in Sub-Saharan Africa: A Systematic Review of Evidence and Gaps.”
- Published in *Global Epidemiology*, Volume 12, Article 100274; DOI: 10.1016/j.gloepi.2026.100274.
- PROSPERO registration: CRD42024529208.
- Establishes the measurement gap motivating the doctoral programme, including limited use of direct brain-based measures and near-absence of neuroimaging evidence among iron-deficient children in sub-Saharan Africa.

Paper 2 – Infant ULF-MRI Feasibility, Image Quality, and Analytic Usability | Published, 2026

- “Feasibility, Image Quality, and Analytic Usability of Mobile 64 mT Ultra-Low-Field MRI for Infant Brain Imaging at 3 and 12 Months in Southern Malawi.”
- Published in *Journal of Magnetic Resonance Open*, Volume 28, Article 100225; DOI: 10.1016/j.jmro.2026.100225.
- Demonstrates feasibility, image quality, and analytic usability of non-sedated mobile 64 mT ULF-MRI for infant brain imaging in southern Malawi.
- Key outputs include 810 eligible infant visits, 654 completed MRI sessions, 80.7% scan completion, 442/495 scans meeting full-brain quality criteria for volumetric processing, 396/426 scans rated analysable by radiologist review, and volumetry derived for 215 infants at 3 months and 227 infants at 12 months.

Paper 3 – Clinical Integration of Mobile 64 mT MRI | Published, 2026

- “Bridging the Neuroimaging Access Gap: Clinical Integration of Mobile 64 mT MRI for Paediatric Care at a Low-Resource Referral Hospital in Malawi.”
- Published in Journal of Magnetic Resonance Open, Article 100230; DOI: 10.1016/j.jmro.2026.100230.
- Demonstrates how mobile 64 mT MRI can be integrated into paediatric clinical care at a low-resource referral hospital where conventional neuroimaging access is limited.
- Reports a clinical implementation pathway linking referral, non-sedated image acquisition, radiological review, diagnostic interpretation, and clinical decision-making in a paediatric referral setting. Clinical deployment provided implementation evidence relevant to further low-field MRI optimisation.

Paper 4 – Clinical Case Series | Manuscript in development, 2026

- “MRI in Clinical Practice: Diagnosis and Management Insights from Ultra-Low-Field Brain MRI in a Low-Resource Hospital in Malawi.”
- Clinical case series examining the diagnostic and management value of ULF-MRI brain imaging in routine clinical practice at a low-resource hospital in Malawi.
- Presented at the ISMRM 2026 Annual Meeting in Cape Town and awarded the ISMRM Summa Cum Laude Merit Award.
- Target journal:

Paper 5a – Longitudinal Brain-Development Trajectories | Analysis / manuscript development underway

- Working title: “Ultra-Low-Field MRI and Brain Morphometry Reveal Neurodevelopmental Trajectories Associated with Iron-Deficiency Anaemia.”
- Examines longitudinal and cross-sectional brain morphometry at 3 and 12 months, with a focus on associations between early-life developmental risk, iron-deficiency anaemia, and infant brain-growth trajectories.

Paper 5b – Placental Pathology and Early Brain Development | Abstract presented March 2026; full analysis underway

- “Placental Pathology and Early Brain Development in Malawi: Insights from Ultra-Low-Field Infant MRI.”
- Examines prenatal-postnatal links between placental histopathology and early infant brain growth.
- Presented at the ISMRM Workshop on Unlocking the Potential of Prenatal MRI, Washington, DC, March 2026.

Paper 6 – Health-Systems and Regional Scale-Up Paper | Manuscript development underway

- “Democratizing MRI with Low-Field in Sub-Saharan Africa: A Health Systems Approach to Regional Scale-Up.”
- Positioning and synthesis paper examining accessible MRI ecosystems, implementation requirements, training, governance, and regional scale-up pathways for low-field MRI in sub-Saharan Africa.
- Connects the Malawi implementation evidence with broader South–South collaboration and regional scale-up opportunities, including implications for health systems, workforce development, data sovereignty, and equitable neuroimaging access.

Teaching, Supervision, Mentorship, and Capacity Development

Invited Lecture – MRI in Africa Course | 11 May 2027**2027 ISMRM & ISMRT Annual Meeting and Exhibition, Vancouver Convention Center, Vancouver, Canada**

- Invited by the International Society for Magnetic Resonance in Medicine to deliver an in-person educational lecture entitled “From Fever to Coma: MRI of Cerebral Malaria and Uncommon CNS Infections in African Children” in the MRI in Africa course.
- The lecture will address MRI patterns of cerebral malaria, paediatric CNS infections, imaging mimics, complications, and practical interpretation in African and resource-limited clinical settings.
- Session theme: neuro-MRI in Africa, including clinical priorities, low-field and portable MRI, implementation science, workforce development, protocol harmonisation, safety, quality assurance, and sustainable neuroimaging capacity.

Part-time Lecturer – Introduction to Psychology (BEH 115) | 2025/2026 year

Kamuzu University of Health Sciences, Blantyre and Lilongwe Campuses

- Teaches psychology to health-sciences students; develops learning materials and examinations; undertakes invigilation and marking.

Mentorship and Research Supervision | 2019 – Present

ALMA / TRUE / KUHeS

- Mentors postgraduate fellows, students, assessors, and field research teams in neurodevelopmental assessment, MRI implementation, and child-development research.
- Supports standardisation, scoring, quality assurance, field supervision, manuscript development, and research capacity strengthening.
- Number and level of students/fellows formally mentored or supervised: 5+.

Invited Lecture: Accessible Neuroimaging | 8 – 10 June 2026*The Aga Khan University Institute for Human Development (AKU-IHD) International Conference, Nairobi, Kenya*

- Ultra-Low-Field MRI for Equitable Brain Development Research and Clinical Applications in sub-Saharan Africa

Invited Lecture/ Seminars: Accessible Neuroimaging | 7 – 14 March 2026*Michigan State University (MSU) and University of Michigan (UMich), United States of America**Michigan State University – Institute for Quantitative Health Science & Engineering (IQ), East Lansing**Brain Imaging and Neuropsychology Lab (UMich); Alzheimer's Disease Research Center (ADRC); MSU Global Health Institute, Psychiatry department, and African Studies Centre; Grand Rapids - MSU College of Human Medicine; Social and Emotional Neurodevelopment (SEND) Lab; MSU African Studies Centre; MSU Department of Psychiatry*

- Accessible Neuroimaging for Equitable Brain Development Research and Clinical Applications in Sub-Saharan Africa from Blantyre.

Invited Lecture: Clinical Applications of Low-Field MRI | 13 February 2025*Advanced MRI Graduate Course, Oxford Centre for Integrative Neuroimaging, University of Oxford*

- Delivered specialist teaching on research and clinical applications of low-field MRI to researchers and PhD students.

Clinical, Counselling, Employee Assistance, and Workplace Wellbeing Practice

Founder / Consultant – Lifeing | 2006 – Present*Malawi*

- Provides short-term counselling, psychosocial support, EAP design and delivery, workplace mental health training, trauma defusing and debriefing, resilience support, organisational wellbeing, manager guidance, and confidential referral pathways.
- Selected clients include Old Mutual Malawi, Telekom Networks Malawi, African Parks, CDH Investment Bank, and other institutional and corporate organisations.
- Has developed and delivered workplace health, supervisory wellness, men's wellbeing, stress-management, counselling, organisational support interventions, and outdoor wellbeing activities at Mulanje Mountain, Malawi.

Tinnitus Counselling and Support | August 2023 – Present, periodic*Queen Elizabeth Central Hospital Audiology Clinic*

- Provides psychological and behavioural support alongside audiology services, including assessment, counselling, coping strategies, management support, and group facilitation.

Selected Workplace, Public, and Knowledge-Translation Engagements

Workplace Mental Health – Building Resilient and Thriving Teams | 21 May 2026*CDH Investment Bank, Malawi – Virtual Staff Session*

- Delivered a one-hour workplace mental health session attended by more than 80 employees, addressing productivity, decision-making, team dynamics, retention, self-care, and follow-up support pathways.

Workplace and EAP Conference Engagements | 2015 – Present

- Has presented on workplace outcomes, financial-wellness EAP metrics, cross-cultural EAP development, counselling, tinnitus, and organisational wellbeing in Malawi, South Africa, and Nigeria.

Research, Technical, Clinical, and Professional Skills

Neuroimaging and Developmental Measurement

- Mobile 64 mT ultra-low-field MRI research implementation and clinical workflow integration
- Non-sedated infant and paediatric brain-imaging procedures and participant preparation
- MRI acquisition coordination, protocol implementation, image-quality review, and radiology workflow coordination
- FSL-based neuroimaging analysis and adaptation for ultra-low-field data (training and collaborative application)
- Structural MRI quality control, volumetric analysis support, multi-site scanner harmonisation, and analytic pipeline evaluation
- Neurocognitive, developmental, executive-function, educational, behavioural, and disability assessment
- Cross-cultural assessment adaptation, assessor training, standardisation, psychometric measurement, and quality assurance

Research Methods and Scientific Communication

- Randomised controlled trials, prospective cohorts, longitudinal studies, clinical observational studies, and implementation research
- Systematic review methods, evidence synthesis, protocol development, research ethics, and Good Clinical Practice
- Scientific writing, manuscript revision, peer-review response preparation, abstract development, and conference dissemination
- Field-team leadership, study coordination, data-quality oversight, and multidisciplinary collaboration
- Statistical and research software: [Stata, R, SPSS, FSL, REDCap, Excel]

Clinical and Organisational Practice

- Counselling and therapy, psychological first-line support, trauma support, and case management
- Employee Assistance Programme design, implementation, referral, reporting, and evaluation
- Workplace mental health, resilience, manager support, organisational wellbeing, and staff training
- Tinnitus assessment, counselling, coping interventions, support groups, and multidisciplinary care

Selected Training, Certifications, and Professional Development

MRI Graduate Programme | October 2024 – June 2025

University of Oxford, United Kingdom

- Training in MRI physics, image analysis, interpretation, neuroscience, and neuroimaging applications.

MRI of the Neonatal and Infant Brain: Indications, Imaging Techniques and State of the Art | 2 August 2024

ISMRT Future Leaders – Malawi Session

Advanced Postgraduate Research Methods | March 2024

Malawi-Liverpool-Wellcome Programme

Emerging Portable Technology for Neuroimaging Research in New Field Settings: Legal and Ethical Challenges |

December 2023

Consortium on Law and Values in Health, Environment & the Life Sciences, University of Minnesota

Magnetic Resonance Imaging Clinical Science Mentorship | 2023 – 2024

International Society for Magnetic Resonance in Medicine

Pediatrics: Insights into Imaging the Developing Brain | June 2023 – Ongoing

ISMRM Magnetic Resonance Academy

Support Programme for PhD Students | 2022

North-West University, Faculty of Health Sciences, Centre of Excellence for Nutrition, Potchefstroom, South Africa

Research and Clinical Certifications | 2010 – 2022

Various providers

Research ethics, human-subjects protection, ICH Good Clinical Practice, quantitative clinical research methods, biomedical and professional modules, and statistics in the design and analysis of research projects.

Employee Assistance Programmes – Basic and Advanced | 2010 and 2011

Postgraduate Continuing Education Centre, University of Pretoria, South Africa

Health Psychology and Counselling | 2003

Department of Psychology, Chancellor College, University of Malawi

Scientific Collaboration, Analysis Contributions, Leadership, and Service

UNITY Neuromodelling Analysis Convening | 19–22 April 2024

Dubai, United Arab Emirates

- Contributed to a multidisciplinary convening of approximately 30 UNITY MRI scientists from Africa, North America, Europe, Australia, and Asia.
- Supported harmonisation of ultra-low-field MRI data metrics and analysis pipelines across multiple international studies and cohorts.
- Convening supported by the Bill & Melinda Gates Foundation Maternal, Newborn, Child Nutrition & Health programme.

Selected Scientific Collaborations

- Oxford Centre for Integrative Neuroimaging, University of Oxford
- Brown University Advanced Baby Imaging Laboratory
- Michigan State University Global Neuropsychiatry Research Program
- Aga Khan University – Institute for Human Development
- Walter and Eliza Hall Institute of Medical Research
- Liverpool School of Tropical Medicine
- UNITY low-field MRI consortium
- Training and Research Unit of Excellence and Kamuzu University of Health Sciences

Professional and Academic Service

- Employee Assistance Council of Africa (EACA) – Malawi representative 2025 - Current
- Postgraduate mentorship and research-team capacity development through ALMA, TRUE, and KUHeS.
- AKU-IHD Neuroscience group, TRUE training committees

Selected Invited Lectures, Conference Abstracts, and Presentations

- 2026 – Vokhiwa M.**, et al. “MRI in Clinical Practice: Diagnosis & Management Insights from ultra-Low-Field Brain MRI in a Low-Resource Hospital in Malawi.” ISMRM Annual Meeting, Cape Town, South Africa, 12 May 2026. Digital Poster 469-01-014; awarded Summa Cum Laude.
- 2026 – Vokhiwa M.**, et al. “Placental Pathology and Early Brain Development in Malawi: Insights from Ultra-Low-Field Infant MRI.” ISMRM Workshop on Unlocking the Potential of Prenatal MRI, Washington, DC, March 2026. Poster 202-01-010.
- 2026 – Vokhiwa M.** “Ultra-Low-Field MRI for Equitable Brain Development Research and Clinical Applications in Sub-Saharan Africa.” Neuroscience session, 10 June 2026; Aga Khan University Institute for Human Development International Conference, Nairobi, Kenya.
- 2025 – Vokhiwa M.**, et al. “Measuring Infant Brain Development at 3 and 12 Months of Age in Southern Malawi Using Portable 64 mT Ultra-Low-Field MRI.” DELTAS-Africa Scientific Meeting, Cape Town, South Africa, 28–30 July 2025.
- 2025 – Vokhiwa M.** Discussion at the Oxford Centre for Integrative Neuroimaging Global Scholars Symposium, 19 November 2025; Building large, multi-country research projects in neuroimaging.
- 2025 – Vokhiwa M.** “Clinical Applications of Low-Field MRI.” Advanced MRI Graduate Course, Oxford Centre for Integrative Neuroimaging, University of Oxford, 13 February 2025.
- 2024 – Vokhiwa M.**, et al. “Measurement of Neurodevelopmental Outcomes Among Children Under 5 Years of Age Exposed to Iron-Deficiency Anaemia in Sub-Saharan Africa: A Systematic Review.” KUHeS Research Dissemination Conference, Malawi, October 2024.
- 2024 – Vokhiwa M.**, et al. “Accessibility of Ultra-Low-Field MRI for Paediatric Brain Neuroimaging in a Low-Resource Referral Hospital, Southern Malawi.” KUHeS Research Dissemination Conference, Malawi, October 2024.
- 2024 – Vokhiwa M.** “MRI of the Neonatal and Infant Brain: Indications, Imaging Techniques and State of the Art; and a Clinical Case Study from Blantyre.” ISMRM Future Leaders – Malawi Session, 2 August 2024.
- 2024 – Vokhiwa M.**, et al. “Research Use of an Ultra-Low-Field MRI to Measure Child Neurodevelopment at 3 and 12 Months of Age in Southern Malawi, Sub-Saharan Africa.” ISMRM Annual Meeting, Singapore, 4–9 May 2024; Proceedings abstract 0421; awarded Magna Cum Laude.
- 2024 – Vokhiwa M.**, et al. “A Case Study of Clinical Accessibility of Ultra-Low-Field MRI in a Low-Resource Referral Hospital in Southern Malawi.” 2nd ISMRM Workshop on Accessible MRI, Indian National Science Academy, New Delhi, India, 16–18 February 2024.
- 2023 – Vokhiwa M.**, Chichlowska SC, Choko AT. “Evaluating Workplace Outcomes of an Employee Assistance Program in Malawi.” KUHeS 2nd Research Dissemination Conference, Blantyre, Malawi, 30 November–1 December 2023.
- 2023 – Vokhiwa M.** “Tinnitus Assessment and Management.” Ear, Nose and Throat and Audiology Association of Malawi Annual Teaching Sessions, KUHeS, Blantyre, 20–23 November 2023.
- 2023 – Vokhiwa M.** “Workplace Outcomes Benefit of an Employee Assistance Program.” 2nd EAP for Africa Conference, Lagos, Nigeria, 8 November 2023.
- 2016 – Vokhiwa M.** “Reliability and Validity of Financial Wellness EAP-Related Metrics Measurement in a Low-Income Setting.” 18th EAPA-SA Conference, Cape Town, South Africa, 15 September 2016.
- 2015 – Vokhiwa M.** “Can We Measure the Development of EAPs Consistently Within and Across Cultures in Africa?” 17th EAPA-SA Conference, Durban, South Africa, 10 September 2015.

Publications and Scholarly Outputs

Peer-Reviewed Journal Articles

- Vokhiwa M.**, Chetcuti K., Chikwana J., et al., Bridging the neuroimaging access gap: Clinical integration of mobile 64 mT MRI for paediatric care at a low-resource referral hospital in Malawi, *J. Magn. Reson. Open*, 29 (2026), 100230, ISSN 2666-4410, <https://doi.org/10.1016/j.jmro.2026.100230>.
- Vokhiwa M.**, Chetcuti K., Lange F., et al. Feasibility, image quality, and analytic usability of mobile 64 mT Ultra-low-field MRI for infant brain imaging at 3 and 12 months in Southern Malawi; *J. Magn. Reson. Open.*, 28 (2026), Article 100225, ; ISSN 2666-4410; <https://doi.org/10.1016/j.jmro.2026.100225>
- Vokhiwa M.**, Pitchford NJ, Cohee LM, Phiri KS, Umar E. (2026). Measuring neurodevelopment in iron-deficient children in sub-Saharan Africa: A systematic review of evidence and gaps. *Global Epidemiology*, volume 12, 100274. [doi:10.1016/j.gloepi.2026.100274](https://doi.org/10.1016/j.gloepi.2026.100274)
- Mzembe G, Nkhono W, Moya E, Harding R, Kaunda J, Thawani A, Mwambinga M, Mtambo O, Truwah Z, **Vokhiwa M**, Mhango G, Demir AY, Verhoef H, Ataíde R, Braat S, Pasricha SR, Phiri KS, Mwangi MN. (2025). Prenatal intravenous iron and child growth: A secondary analysis of a randomized clinical trial. *JAMA Network Open*, 8(10), e2538392. [doi:10.1001/jamanetworkopen.2025.38392](https://doi.org/10.1001/jamanetworkopen.2025.38392)

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1. **Vokhiwa M**, et al. Bridging the Neuroimaging Access Gap: Clinical Integration of Portable Ultra-Low-Field MRI for Paediatric Care at a Low-Resource Referral Hospital in Malawi. *Journal of Magnetic Resonance Open*, manuscript JMRO-D-26-00020; Preprint SSRN DOI:10.2139/ssrn.6878940
2. **Vokhiwa M**, et al. Feasibility, Image Quality, and Analytic Usability of Mobile 64 mT Ultra-Low-Field MRI for Infant Brain Imaging at 3 and 12 Months in Southern Malawi. *Journal of Magnetic Resonance Open*, manuscript JMRO-D-26-00015; revised-submission status: July 2026.
3. **Vokhiwa M**, et al. MRI in Clinical Practice: Diagnosis and Management Insights from Ultra-Low-Field Brain MRI in a Low-Resource Hospital in Malawi. Manuscript in preparation / submission status.
4. **Vokhiwa M**, et al. Ultra-Low-Field MRI and Brain Morphometry Reveal Neurodevelopmental Trajectories Associated with Iron-Deficiency Anaemia. Working title; manuscript status: analysis in progress.

5. **Vokhiwa M**, et al. Placental Pathology and Early Brain Development in Malawi: Insights from Ultra-Low-Field Infant MRI. Manuscript / analysis status: analysis in progress.
6. **Vokhiwa M**, et al. Democratizing MRI with Low-Field in Sub-Saharan Africa: A Health Systems Approach to Regional Scale-Up. Manuscript status: manuscript under development.
7. **Vokhiwa M**, Chichlowska SC, Choko AT. Evaluating Workplace Outcomes of an Employee Assistance Program in Malawi. Previously submitted to the Journal of Workplace Behavioral Health (JWBH-2020-0120); current status: revision for submission to same journal.

Published Conference Proceedings and Abstracts

1. **Vokhiwa M**, et al. (2026). MRI in Clinical Practice: Diagnosis & Management Insights from ultra-Low-Field Brain MRI in a Low-Resource Hospital in Malawi. ISMRM 2026, Digital Poster 469-01-014. Summa Cum Laude.
2. **Vokhiwa M**, et al. (2026). Placental Pathology and Early Brain Development in Malawi: Insights from Ultra-Low-Field Infant MRI. ISMRM Prenatal MRI Workshop, Poster 202-01-010.
3. **Vokhiwa M**, et al. (2024). Research use of an ultra-low-field MRI to measure child neurodevelopment at 3 and 12 months of age in Southern Malawi, Sub-Saharan Africa. Proceedings of the International Society for Magnetic Resonance in Medicine, 32, 0421.
4. **Vokhiwa M**. (2016). Reliability and Validity of Financial Wellness EAP-Related Metrics Measurement in a Low-Income Setting. 18th EAPA-SA Conference, Cape Town, South Africa.
5. **Vokhiwa M**. (2015). Can We Measure the Development of EAPs Consistently Within and Across Cultures in Africa? 17th EAPA-SA Conference, Durban, South Africa.

Institutional and Technical Publication

1. United Nations Children's Fund (UNICEF). (2005). Guide to Monitoring and Evaluation of the National Response for Children Orphaned and Made Vulnerable by HIV/AIDS. UNICEF, New York. **Maclean Vokhiwa's** role/contribution: enumerator.

Professional Memberships and Affiliations

- International Society for Magnetic Resonance in Medicine (ISMRM) – Member No. 108327.
- Employee Assistance Council of Africa (EACA) – Malawi representative 2025 - 2026
- African Leadership for Measuring Brain Health in Children & Adolescence (ALMA).
- Ultra-low-field Neuroimaging In The Young (UNITY) initiative / low-field MRI consortium.
- Training and Research Unit of Excellence (TRUE), Malawi.
- Kamuzu University of Health Sciences, Malawi.
- Oxford Centre for Integrative Neuroimaging, University of Oxford – Global Scholar / collaborator.

Languages

- English
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Appendix A – Full Professional Biography

Maclean Vokhiwa – Professional Bio | Revised October 2026

Who is he?

Maclean Vokhiwa is a Malawian developmental neuroscience PhD Fellow, psychologist, public health researcher, lecturer, counsellor, and Employee Assistance Professional. He is an ALMA Fellow based at the Kamuzu University of Health Sciences (KUHeS) and the Training and Research Unit of Excellence (TRUE), Malawi. His doctoral work focuses on accessible neuroimaging and equitable measurement of early brain development using mobile ultra-low-field magnetic resonance imaging (ULF-MRI), with emphasis on translating neuroscience into practical clinical, public health, and research applications across low-resource sub-Saharan Africa.

What has he accomplished?

He has contributed to multidisciplinary child neurodevelopment research across studies of cerebral malaria, iron-deficiency anaemia, infectious disease, placental pathology, environmental toxicities, and related developmental risks. At TRUE/Zomba Central Hospital, he provides research and clinical oversight for a mobile 64 mT ULF-MRI platform within the global Ultra-low-field Neuroimaging In The Young (UNITY) initiative. His doctoral work has generated first-author publications in *Global Epidemiology* and the *Journal of Magnetic Resonance Open*, including papers demonstrating the feasibility, image quality, analytic usability, and clinical integration of mobile 64 mT MRI for infant and paediatric brain imaging in Malawi. His wider publication record includes work in *JAMA Network Open*, *Nature Medicine*, *Human Brain Mapping*, *Developmental Cognitive Neuroscience*, *PLOS Global Public Health*, *EClinicalMedicine*, *The Lancet*, and other journals.

He is a 2025 ISMRM-Gates Foundation Knowledge Exchange Fellow, a 2024-2025 Oxford Centre for Integrative Neuroimaging Global Scholar, and a consultant on the WHO Brain Health Unit roster. His work has been recognised with the 2024 ISMRM Magna Cum Laude Merit Award for advancing global MRI access, the 2025 DELTAS-Africa Research Excellence Award, and the 2026 ISMRM Summa Cum Laude Merit Award for clinical ULF-MRI research in Malawi.

What is he doing now?

His current doctoral programme demonstrates that accessible low-field MRI can support structural infant brain imaging, paediatric clinical neurodiagnostics, longitudinal brain-development analysis, and prenatal-postnatal brain-development research in low-resource African settings. His PhD portfolio now includes a published systematic review in *Global Epidemiology*; two published *Journal of Magnetic Resonance Open* papers on infant ULF-MRI and clinical integration; an ISMRM-recognised clinical case series; ongoing longitudinal infant brain morphometry analyses; placenta-brain work presented at the ISMRM Prenatal MRI Workshop (Washington DC, March 2026); and a health-systems synthesis paper on regional scale-up of low-field MRI in sub-Saharan Africa.

He has also undertaken protected research and writing time at the Aga Khan University Institute for Human Development in Nairobi, strengthening South-South collaboration and exploring how accessible neuroimaging can complement emerging African neuroscience platforms. In 2027, he has been invited by ISMRM to deliver an educational lecture in the MRI in Africa course on “From Fever to Coma: MRI of Cerebral Malaria and Uncommon CNS Infections in African Children” at the ISMRM & ISMRT Annual Meeting in Vancouver.

How does he collaborate?

He maintains South-South and South-North collaborations with institutions and investigators at the University of Oxford, Brown University Advanced Baby Imaging Laboratory, Michigan State University's Global Neuropsychiatry Research Program, Aga Khan University Institute for Human Development, Liverpool School of Tropical Medicine, the Walter and Eliza Hall Institute of Medical Research, KUHeS, TRUE, and the international UNITY consortium. These collaborations focus on ULF-MRI implementation, neurodevelopmental measurement, imaging analysis, training, and African-led research capacity for children exposed to infectious, nutritional, placental, and environmental developmental risks.

How can he play a part?

Maclean's work aims to support equitable and accessible neuroimaging ecosystems across Africa by contributing context-appropriate imaging protocols, implementation models, training, quality assurance, radiological workflows, and analysis frameworks that can function within constrained infrastructure environments. He is particularly interested in helping institutions integrate mobile ULF-MRI into child-health, neuroscience, and clinical care programmes as a complementary tool for measuring developmental outcomes and strengthening paediatric brain-health services. Through Lifeing, he also contributes counselling, Employee Assistance Programmes, workplace mental health, organisational wellbeing, and staff-support expertise that links individual wellbeing with institutional performance and public-health goals.

Additional professional statement

Maclean Vokhiwa is a developmental neuroscience PhD Fellow whose work bridges accessible neuroimaging, child-development measurement, public health, clinical implementation, and organisational wellbeing. He combines scientific leadership in mobile 64 mT ULF-MRI with long-standing experience in neurocognitive assessment, teaching, counselling, tinnitus support, Employee Assistance Programmes, and workplace mental health. His work is directed toward practical, scalable, and locally led approaches for improving brain-health research and care in sub-Saharan Africa.