

About

Dr Msosa Chimwemwe is a Lecture in Biomedical Engineering at the University of Malawi. His current research interests are focused on the development of an integrated bioinspired microdevices using microfluidics and tissue engineering approaches for disease modeling, biological systems modeling, and drug discovery.

His research interests in cellular Mechanobiology related to infectious diseases such as malaria, focuses on developing a mechanistic understanding of the virulence of infectious pathogens, with the aim of bringing about new insights into physiological function, aetiology of infectious disease and innovations both for biomedicine and biotechnology. Insights into the mechanical basis of tissue or cell regulation may also lead to development of improved medical devices, biomaterials, and engineered tissues.

His research on numerical modeling of blood flow in brain aneurysms is aimed at developing computational methodology that will reliably predict blood vessel remodeling resulting from surgeries altering the flow, thus improving the outcome of these procedures.

Other research interests include:

- 1-Image-guided surgery
- 2-Molecular imaging
- 3-Lab-On-Chip devices