



Dr Essa Suleman is a CSIR Principal Researcher and the Research Group Leader for Veterinary Diagnostics, Vaccines and Aquaculture. He holds an undergraduate degree in microbiology and biotechnology from the University of Cape Town and a PhD in microbiology from Nelson Mandela University. Prior to joining the CSIR, his research focused on molecular disease epidemiology of important veterinary and zoonotic diseases in wildlife. His current research focuses on developing novel diagnostic technologies which combines microfluidics, isothermal amplification and mobile fourth industrial revolution technologies to enable point-of-care diagnostics for diseases affecting human, animal and environmental health.

Essa leads the Aquaculture, Diagnostics, Feed and Health program which involves several CSIR scientists and various local and international collaborators focused on developing technologies to improve aquaculture including (i) conventional and point-of-care diagnostics for viruses such as infectious spleen and kidney necrosis virus and tilapia lake virus that pose a major threat to the global aquaculture industry, improved feed and probiotics, and novel vaccine technologies based on messenger ribonucleic acid (mRNA).

He also established the CSIR's Covid-19 diagnostic testing facility and is the South African scientific co-ordinator of the One Food Fellowships programme which is part of the broader international One Food program which is collaboration of 16 partners led by DSI, Cefas (UK) and CSIR that aims to apply a One Health approach for food safety, security and sustainability. Local partners include the HRSC, SANBI, ARC and several academic institutions.