

Genomics for Health in Africa

Priority Area	
Public Health	
Abstract	
<p>The CoRE for Genomics for Health in Africa aims to leverage the potential of genomics to revolutionise healthcare in Africa. Genomics can provide a better understanding of rare diseases, cancers, and infections, which can lead to more effective treatments. Combined with biochemical, biophysical, and structural analyses, genomics serves as a powerful tool for precision medicine and personalised treatment approaches. However, despite its enormous value, genomics is under-utilised in Africa due to insufficient infrastructure, resources, and scientific capacity. This CoRE will build capacity for genomics-based diagnostics of rare diseases, cancers, and infections, coupled to investigating protein structure-function relationships and supporting optimal drug treatment and vaccine development. It will provide a unique and open platform to the African research community, to exploit the full potential of genomics coupled to protein structure function studies, as a fundamental tool to revolutionise public healthcare for both infectious and rare non-communicable diseases.</p>	
Co-Leads (Academic, University)	
ARUA	The Guild
Prof. Dr. Shahida Moosa, Head Medical Genetics, Stellenbosch University-Tygerberg Hospital; Prof. Dr. Tulio de Oliveira, Director, Centre for Epidemic Response and Innovation (CERI), Stellenbosch University-CERI) - Stellenbosch University , South Africa	Dr. Tobias Haack, Deputy director and lead physician, Institute of Medical Genetics and Applied Genomics, Center for Rare Diseases; Prof. Dr. Olaf Riess, Director, Institute of Medical Genetics and Applied Genomics, Center for Rare Diseases, Center for Personalized Medicine - University of Tübingen , Germany
	Prof. Dr. Carmen Faso, MCID Co-Chair and MCID Interfaculty Lecturer; Prof. Dr. Volker Thiel, MCID Co-Chair and Professor for Virology - University of Bern , Switzerland
Core Partners (Academic, University)	
Prof. Özlem Tastan Bishop, Professor and Director of Research Unit in Bioinformatics, Department of Biochemistry and Microbiology; et al. - Rhodes University , South Africa	
Dr. Anita Ghansah, Senior Research Fellow, Department of Parasitology, NMIMR, College of Health Science - University of Ghana , Ghana	
Prof. Dr. Marlo Möller, DSI-NRF Centre of Excellence for Biomedical Tuberculosis Research, South African Medical Research Council Centre for Tuberculosis Research, Division of Molecular Biology and Human Genetics, Faculty of Medicine and Health Sciences; et al. - Stellenbosch University , South Africa	
Dr. Loice Ombajo, Infectious Disease Specialist and Senior Lecturer, Department of Medicine; et al. – University of Nairobi Center for Epidemiological Modelling and Analysis , Kenya	
Prof. Dr. Carlo Largiadèr, Professor, Department of Clinical Chemistry-Inselspital Bern – University of Bern , Switzerland	
Dr. Jennifer Giandhari, Lecturer, Laboratory Medicines and Medical Sciences Department - University of KwaZulu-Natal , South Africa	
Prof. Annette Uwineza, Associate Professor of Medical Genetics - University of Rwanda , Rwanda	
Prof. Alexander Hoischen, Assoc. Prof. of Human Genetics - Radboud University , The Netherlands	
Other Partners (including non-academic ones)	
Prof. Kathrine Scholtz, Associate Professor of Human Genetics - University of Limpopo , South Africa	
Prof. Peter Krawitz, Director Institute for Statistical Genomics and Bioinformatics - University of Bonn , Germany	
Prof. Matthew Groves, Assoc. Prof. in Structural Biology in Drug Design - University of Groningen , The Netherlands	
Prof. Olwyn Byron, Professor of Biophysics, School of Infection and Immunity - University of Glasgow , United Kingdom	