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UCT scientists drive genomics research in tackling diseases endemic to Africa

The University of Cape Town's (UCT) Hearing Impairment Genetics Studies in Africa has been awarded grant funding by the African Academy of Sciences (AAS) for cutting-edge research. The research offers the potential to identify genes that cause non-syndromic hearing loss – loss of hearing that is not associated with other signs and symptoms.

Prof Ambroise Wonkam, a senior specialist at UCT's Division of Human Genetics, said: "Studying the genetics of hearing impairment requires large numbers of people from diverse communities for more effective results. We will research the largest sample of sub-Saharan Africans from Cameroon, Mali, Ghana, and South Africa to better understand the genetic causes of non-syndromic hearing impairment in African populations."

Genomics is the scientific study of an individual's genes, including their interaction with each other and with the environment. Genomics has helped provide insight into the understanding of diseases, such as cancer and diabetes, which are influenced by genetic and environmental factors, thereby offering insights for developing new diagnostic methods, therapies and treatments.

Grants were also awarded to researchers from Ethiopia, Gambia and Uganda to lead fouryear programmes to promote south-south collaboration through the Human Hereditary and Health in Africa (H3Africa).

The H3Africa projects include a component to build infrastructure and train a critical mass of highly skilled genomics researchers in Africa.

"As the world is moving towards precision medicine, having a critical mass of skilled labour is important for laying a firm foundation for its success in Africa. Promoting and sustaining this momentum is crucial if the continent is to competitively offer the right health interventions at the right time and to the right people in the near future," added Dr Jenniffer Mabuka, H3Africa Programme Manager for the AAS. This research accelerates the use of genomics to better understand how the environment and human genes influence the susceptibility of Africans to certain diseases, and their response to treatment. Human genetics research has been concentrated on European populations, underrepresenting individuals of African ancestry.

Notes to editors

For profiles of all the grant awardees click here.

For more information about the African Academy of Sciences click here.

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