Prestigious ASSAf membership for UKZN academics

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Five UKZN academics, Professors Yin-Zhe Ma, Rituparno Goswami, Deevia Bhana, Kogieleum Naidoo and Thajasvarie (Anita) Naicker are among 29 of South Africa’s leading scholars and scientists inaugurated as members of the Academy of Science of South Africa (ASSAf), while Professor Asanda Mditshwa is among 10 young academics admitted to the South African Young Academy of Science (SAYAS).

ASSAf’s new members are elected by other members annually with the academy prioritising inclusion of the country’s top scholars across a full spectrum of disciplines, emphasising the importance of multidisciplinarity in its membership cohort. This year’s new members bring its total membership to 659.
Membership of ASSAf honours and recognises scholarly achievement; members voluntarily give of their time and expertise in service of society and are a core asset of ASSAf.

The SAYAS was launched in 2011 to enable South Africa’s young scientists to fully participate in local and internationally relevant research and development agendas by providing a national platform where leading young scientists from all disciplines, including pure and applied science, humanities, social sciences and the arts, can interact and access international networking and career development opportunities. These academics are below the age of 40, have PhDs and have achieved excellence in their fields of expertise.

The University of Johannesburg’s Dustin van der Haar with Asanda Mditshwa.
UKZN Vice-Chancellor Professor Nana Poku said: "We congratulate all five professors. Their election as members of ASSAf cements their stature as among the country's best scholars. The mere fact that they were elected into the membership by existing members of the academy is proof that they also command the respect of their peers. This election of our academics into ASSAf can only bode well for our students and fellow members. We believe that upcoming scholars will draw inspiration from recognising these scholars who continue to inspire greatness."

Ma, from the School of Chemistry and Physics, is an esteemed physicist who has been at UKZN since 2015 and has attained the rank of full professor, with more than 100 publications to his name. Originally from China, Ma completed his undergraduate and master's degrees in Physics and Astrophysics at Nanjing University and the Chinese Academy of Sciences, respectively. He obtained his PhD from the University of Cambridge and conducted post-doctoral research at the Universities of British Columbia and Manchester.

Ma's research focuses on observational and theoretical cosmology to understand the fundamental laws of the universe and uncover the nature of dark energy and dark matter. He is a member of the Hydrogen Epoch of Reionization Team (HERA), several working groups for the Square Kilometre Array (SKA), the Planck science team, and the TAIPAN/6dFGS galaxy survey team.
Goswami, from the School of Mathematics, Statistics and Computer Sciences, is a renowned gravitational physicist who joined UKZN in 2013, having previously conducted research at the Universities of Cape Town and Alberta (Canada) after completing his studies in his native India. He is the academic leader of research for the school. His research focus includes the study of general relativity, modified theories of gravity, gravitational collapse and cosmology.

Mditshwa, of the School of Agricultural, Earth and Environmental Sciences, completed his undergraduate studies at the University of Fort Hare and specialised in post-harvest physiology during his post-graduate studies. He completed his MScAgric at UKZN followed by a PhD in Horticultural Science through Stellenbosch University. He also graduated with a post-graduate diploma in Higher Education from UKZN with distinction, and his commitment to teaching was recognised through the National Research Foundation (NRF) and Department of Higher Education and Training’s Future Professors Programme.

Mditshwa joined UKZN in 2015. His research focuses on novel and non-chemical post-harvest treatments for fresh produce to combat the loss of quality during post-harvest handling. He holds a Y2 rating from the NRF, has 71 peer-reviewed articles and book chapters to his name, and has supervised 16 post-graduate students to completion, with a further 15 masters and PhD students under his supervision. He is also a review editor and board member of the *Frontiers in Sustainable Food Systems* journal.

Commenting on joining ASSAf, Bhana of the School of Education and SARChI Chair in Gender and Childhood Sexuality, said: "To be part of ASSAf, the organisation in
South Africa which is the pinnacle for science and scholarship and populated by the most active scholars recognised as leaders in their field, is a great honour and is further inspiration to pursue my research on what matters to children and young people’s sexual well-being."

Bhana is respected internationally for her research, which seeks to understand how gender and sexuality come to matter in the course of a young life and the implications for sexual well-being, health and gender equality. She has had a substantial impact on the research landscape, growing the next generation of scholars and guiding the direction of further inquiry in the field. Bhana is a B1-rated NRF scholar who was awarded the Human Sciences Research Council (HSRC)/USAf medal for Social Science and Humanities in 2022.

Naicker is a full professor in the College of Health Sciences. Her research has focused on providing research evidence to understand the synergy of preeclampsia (PE) and HIV infection. It is aligned with the United Nations Sustainable Development Goals (SDGs) 2030 and National Development Plan goals to reduce the global maternal mortality rate, end preventable deaths of newborns and children, end the AIDS pandemic and reduce mortality from non-communicable diseases. Her current research combines her microscopy and genetic expertise with her academic knowledge in health to understand the synergy of HIV infection and PE and provide evidence for better management of women’s health. While the conceptual framework of PE and HIV infection underpins her work, she has also encouraged work outside this field to incorporate inter, multi and trans-disciplinary science.

Naidoo is Deputy Director and Head of Treatment Research at the Centre for the Aids Programme of Research in South Africa (CAPRISA) and honorary associate professor
at UKZN’s College of Health Sciences. Her contribution to HIV and TB treatment spans two decades. She was a lead investigator in several Phase II and III TB-HIV and drug-resistant TB treatment trials and was the lead investigator in CAPRISA's clinical studies aimed at optimising treatment strategies for TB-HIV co-infected patients, most notably the CAPRISA SAPiT trial, which served as the basis for TB-HIV treatment integration guidance incorporated into several international and in-country guidelines, including World Health Organisation (WHO) guidelines.

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