Global AIDS scientist elected Fellow of the prestigious Royal Society

Professor Salim Abdool Karim, Director of CAPRISA, has been elected as a Fellow of the distinguished Royal Society in London and will be officially inducted to the world’s oldest science academy, on 12th July this year.

Abdool Karim is one of only three scientists in South Africa who are presently Fellows of the Royal Society, which was established four centuries ago in 1660. “This is absolutely wonderful news – what a proud moment for South Africa!” said Professor Glenda Gray, President of the South African Medical Research Council.

Abdool Karim, together with South African astronomer Dr Bernard Fanaroff, joins a fellowship of over 1,600 scientists, engineers and technologists from the UK and the Commonwealth, including around 80 Nobel Laureates, who have made a “substantial contribution to the improvement of natural knowledge”.

“Over the course of the Royal Society’s vast history, it is our Fellowship that has remained a constant thread and the substance from which our purpose has been realised: to use science for the benefit of humanity,” said Dr Venki Ramakrishnan, President of the Royal Society, in a statement announcing the election of new Fellows and Foreign Members on 18th April.

Ramakrishnan said that “this year’s newly elected Fellows and Foreign Members of the Royal Society embody this, being drawn from diverse fields of enquiry—epidemiology, geometry, climatology—at once disparate, but also aligned in their pursuit and contributions of knowledge about the world in which we live, and it is with great honour that I welcome them as Fellows of the Royal Society.”

Established in 1660 by Royal Charter, the Royal Society, has included many of the world’s leading scientists over the past four centuries from Sir Isaac Newton and Charles Darwin to Albert Einstein and Stephen Hawking.

Abdool Karim, the CAPRISA Professor of Global Health in Epidemiology at the Mailman School of Public Health at Columbia University in the United States and Vice-Chancellor (Research) at the University of KwaZulu-Natal is globally respected for his seminal scientific contributions to AIDS research over the past three decades.

In an interview with University World News, Abdool Karim said, “For me this award is not simply a personal achievement but rather a signal that African scientists undertaking research in Africa are capable and are doing work that is highly regarded and meets international standards of scientific excellence.”

To read the interview with Abdool Karim entitled, Building scientific platforms, published in University World News, click on this link: https://www.universityworldnews.com/page.php?page=Africa_Edition
Mucosal immunology scientist awarded FLAIR research fellowship

CAPRISA scientist, Dr Lenine Liebenberg, has been awarded the prestigious FLAIR research fellowship by the African Academy of Sciences (AAS) and the Royal Society in London. The announcement was made at an event held in Naivasha, Kenya from 4 to 5 April at which the 30 FLAIR Research Fellows were welcomed by the Executive Director of the AAS Professor Nelson Torto and Lesley Miles, the Chief Strategy Officer for the Royal Society, who encouraged them to use their abilities to solve African and global challenges.

Liebenberg, a scientist in CAPRISA’s Mucosal Laboratory, will receive £300,000 (US$391,500) over 2 years as part of FLAIR’s initiative to help talented early-career researchers, whose science is focused on the needs of the continent, establish independent careers in African institutions and ultimately, their own research groups.

Liebenberg has combined training in medical virology, microbiology, genetics, and immunology which has directed the scope of her research in understanding immune responses of the human genital mucosa. During her Fellowship she will investigate the impact of recent sex and partner change on the genital microbiome and immune environment, expanding on research generated through her SANTHE Path to Independence award.

FLAIR is a programme of The AAS and Royal Society, with support from the Global Challenges Research Fund (GCRF). The 2019 FLAIR funded scientists were selected from a competitive pool of more than 700 applicants. “Fostering science and innovation for social benefit and prosperity is key to the wellbeing of any society and investing in Africa’s scientific talent holds the greatest potential to tackle global challenges and improve quality of life,” said Professor Richard Catlow, Foreign Secretary of the Royal Society.

Strengthening health systems using best practice model in HIV/TB care

Delegates from the AURUM Institute, PEPFAR district partner in Ekurhuleni, Gauteng, and the Provincial partner to the North West Province attended the Train the Trainer workshop facilitated by CAPRISA’s Advanced Clinical Care (ACC) team recently.

The 2-day training focussed on best practices in the implementation of routine viral load monitoring and management of patients with unsuppressed viral load.

The workshop equipped attendees with skills to replicate a five-step plan implemented at three pilot sites in eThekwini, with a total of 9,184 patients accessing ART between November 2016 and November 2017, that resulted in improved viral load completion rates to > 80% within six months, sustained to > 90% at 12 months.

The plan was subsequently expanded to the public sector ARV facilities in community health centres and hospitals in eThekwini that resulted in the improvement of the district viral load coverage from 43% to 73% within 6 months of scale up.

The standard operating procedures and tools of this project, which were developed in partnership with the eThekwini district management, PEPFAR partners and academics, are endorsed as the best practice model in HIV/TB care by the South African National Department of Health and neighbouring African countries.

Photo: Facilitators of the ACC programme: (L) Dr Kogie Naidoo Head of HIV-TB Treatment and (R) Dr Rochelle Adams, Research Clinician at CAPRISA
CAPRISA staff and fellows graduate

We congratulate seven staff members and six fellows who graduated at the recent University of KwaZulu-Natal graduation ceremonies held in April and two staff members who will graduate at the University of South Africa and Durban University of Technology in May.

The staff members are (Top L-R): Nigel Garrett (PhD), Charlene Harichund (PhD), Nonhlanhla Yende Zuma (PhD), Hilton Humphries (PhD), Natasha Samsunder (MMed Sci), Atika Moosa (M(Pharm)), Nzuzo Magini (Med Micro, Hons). Nokukhanya Khuzwayo (BTech Quality) and Nokuthula Maphumulo (BA Cur Cum Laude) will graduate in May.


Recognition for CAPRISA Vaccine Team

The CAPRISA HVTN team was awarded the Silver Star Status for quality indicators in Adverse Events submissions in the HVTN 702 vaccine trial. The announcement was made at the annual HVTN sub-Saharan Africa Regional Meeting held in Johannesburg from 18-20 March.

"The award was well received by the team who show ongoing dedication and commitment to vaccine research", said Dr Nivashnee Naicker, Principal Investigator of HVTN 702 at CAPRISA. HVTN and HPTN team members from left to right: Dr Nigel Garrett (IOR), Dr Disebo Makhaza (Clinician), Nokuthula Mkhize (Nurse), Callin Chetty (Study Coordinator), Bongi Zuma (Study Coordinator), Ivy Kaunda (CLO), Dr Nivashnee Naicker (PI), Emmanuel Mthalane (CLO).
Prize for best presentation for postdoctoral fellow

Dr. Simone Richardson, a postdoctoral research fellow at the NICD, won the prize for the best presentation given by a fellow at the 13th meeting of the H3Africa (Human Heredity and Health in Africa) Consortium in Tunis, Tunisia held on 7-12 April 2019. Her oral presentation focussed on the functional relevance of mutations in the IgG3 Fc portion of HIV-specific antibodies in the treatment, prevention and cure of HIV.

In her talk, Morris described the discovery and characterization of antibodies from the HIV-infected CAPRISA participant CAP228 that show potent Fc effector function and block binding to the a4b7 integrin. These antibodies are of interest as they are similar to antibodies found in RV144 vaccines that were associated with protection from HIV infection. Furthermore, CAP228 antibodies were used to delineate a structural state of the V2 region that exposes the a4b7 binding site providing a plausible explanation for how such non-neutralizing antibodies might block HIV infection. Other topics at the meeting included new latency reversing agents, therapeutic vaccines and CAR-T cells.

Dr. Charissa Mynhardt from the NICD (in the photo) presented a poster describing the isolation of monoclonal antibodies from South African recipients of the RV144 HIV vaccine. Remarkably she found that antibody lineages elicited by this vaccine showed some similarities to those seen in Thai RV144 volunteers suggesting that the immunogen plays a more defining role in the antibody response to vaccination than the host genetic background.

Keystone Symposia on functional cures and eradication of HIV

Professor Lynn Morris, interim executive director of the National Institute for Communicable Diseases (NICD), was a co-organizer of the recent Keystone Symposia on Functional Cures and Eradication of HIV held at the Whistler Resort in Canada from 24-28 March 2019.

The meeting, which was held jointly with HIV vaccines (co-organized by the HPP’s Scientific Director, Prof Thumbi Ndung’u), included a number of sessions on the expanding role of broadly neutralizing antibodies in the treatment, prevention and cure of HIV.

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Scientific papers published in 2019


*continuation from previous newsletter