



In this Issue



CAPRISA

CENTRE FOR THE AIDS PROGRAMME OF RESEARCH IN SOUTH AFRICA

Newsletter

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High retention in care and viral suppression maintained with 6 and 12 month ART prescriptions

A recent study published in the *Journal of the International AIDS Society* shows that people with 12-month antiretroviral therapy (ART) prescriptions attending annual clinic visits have similar outcomes to those receiving 6-month prescriptions.

This study, entitled “Clinical outcomes after extended 12-month antiretroviral therapy prescriptions in a community-based differentiated HIV service delivery programme in South Africa: a retrospective cohort study”, examined whether ART prescription length was associated with clinical outcomes among PLHIV in the Centralized Chronic Medicines Dispensing and Distribution programme.

According to Ms Lara Lewis, Senior Statistician at CAPRISA and study lead, while the length of ART prescriptions provided to those established on ART in SA is currently 6 months, there was a period following the onset of the COVID-19 pandemic when 12-month prescriptions were temporarily available.

Conducted as part of the SHAPE project,

in collaboration with the University of Oxford and the eThekweni Municipality Health Unit, the study team compiled a retrospective cohort using de-identified, routinely collected data from 59 public clinics in eThekweni.

They compared clinical outcomes of retention-in-care and viral suppression between prescription groups. The study found that the use of longer prescriptions did not impact short-term clinical outcomes, although the frequency of ART clinic visits was halved.

The researchers recommend that annual prescriptions be considered for differentiated service delivery programmes. More research is needed to understand the impact of annual prescriptions on clinic workload and costs, and client and service-provider perceptions of longer prescriptions.

The WHO has called for evidence to guide whether less frequent consultations and longer ART prescriptions should be recommended in global guidelines.

For further reading: <https://doi.org/10.1002/jia2.26164>

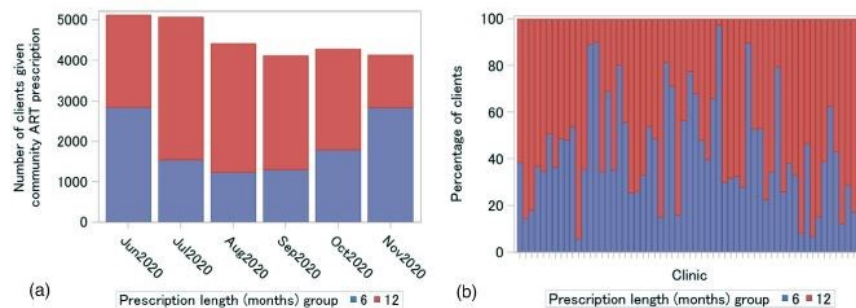


Figure 2. Distribution of exposure prescription groups by baseline month (A) and referring clinic (B)

Figure 2. Distribution of exposure prescription groups by baseline month (A) and referring clinic (B).

On page 1 we feature the study published in the *Journal of the International AIDS Society* which examined whether ART prescription length was associated with clinical outcomes among PLHIV.

We report on Senior Scientist Dr Rubeshan Perumal’s participation in the meeting of the Global Virus Network held in Monaco on page 2. We congratulate Prof Quarraisha Abdool Karim on the conferment of an honorary doctorate from KL University, in India.

On page 3 we feature the EDCTP Outstanding Female Scientist Prize awarded to Prof Kogie Naidoo, and the UKZN Lifetime Achievement award presented to the Abdool Karims by the UKZN’s Nelson Mandela School of Medicine.

Prof Penny Moore’s inaugural lecture features on page 4 and we congratulate Dr Rubeshan Perumal on his appointment on the ACTG TB TSG.

On page 5 we highlight presentations at the World AIDS Day events in Japan and South Africa.

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GVN meeting in Monaco highlights pandemic preparedness and a need for collaboration

Dr Rubeshan Perumal, Senior Scientist joined leading scientists, academics, and captains of industry at the annual three-day information sharing meeting on cutting-edge discoveries of the Global Virus Network (GVN) hosted in partnership with the Centre Scientifique de Monaco (CSM, a GVN Affiliate) and the Government of Monaco.

Perumal discussed his work on co-leading the Global Virus Network (GVN) Long COVID Task Force and said that middle to low-income countries, with the help of funders across the world, have made an important investment in science over the decades, such as with HIV.

“This has positioned us to have a robust clinical trial network allowing us to have a robust response to COVID-19. My work in diagnostics and epidemiology, and in understanding long-term COVID, has positioned our GVN Task Force to launch initiatives aimed at achieving global consensus about the nature of the long COVID, the key scientific priorities, and the need for advocacy to encourage the development of diagnostics and treatment options for Long COVID.”

Long COVID is a substantial burden to society, explained Perumal, and is under-studied in the most vulnerable socio-economic groups. “This is a global problem and needs a global solution that we are working on through the GVN”, he said.

Participants in this segment included Dr Robert Gallo, Co-Founder and Chair of the Scientific Leadership



H.S.H. Prince Albert II of Monaco in discussion with Dr Perumal following his presentation

Board of the Global Virus Network. There were productive discussions between H.S.H. Prince Albert II of Monaco and the GVN on the state of pandemic preparedness and need for global collaborations, particularly in small nations. Concluding the discussion, H.R. H. Prince Albert II of Monaco said, “You can count on our support, and we thank you for your work. We are committed to supporting you – the Global Virus Network.”

Dr Sten Vermund of the Yale School of Public Health, and newly appointed President of the GVN, announced that the 2024 GVN Annual Meeting will be held in Durban, South Africa.

Honorary degree awarded to Prof Quarraisha Abdool Karim in India



She commended the university for promoting gender equity in its student and staff profile. Abdool Karim was the Chief Guest at the university’s 13th Annual Convocation and delivered the keynote convocation address.

On 25 November, the KL University in India awarded the university’s 100th honorary doctorate to Professor Quarraisha Abdool Karim, President of TWAS and associate scientific Director, CAPRISA for her “outstanding contributions in research on HIV, TB and SARS-CoV-2”. In her acceptance address at the ceremony held at the university’s Greenfields campus in Vaddeswaram, Andhra Pradesh Abdool Karim said she was honoured by the conferment of the doctorate and praised the university’s commitment to environmental sustainability and gender equality.



Professor Kogie Naidoo awarded the EDCTP Outstanding Female Scientist Prize 2023

Prof Kogie Naidoo has been awarded the prestigious Outstanding Female Scientist Prize presented by the European & Developing Countries Clinical Trials Partnership (EDCTP), a research programme of the European Union (EU). This prize is awarded to “world-leading female scientists in sub-Saharan Africa working on HIV/AIDS, tuberculosis, malaria and neglected infectious diseases.”

The presentation was made at the 11th EDCTP Forum, co-hosted by the Ministry of Higher Education and Research of France, on Tuesday 7 November, at the Palais des Congrès de Paris in Paris, France and was attended by 500 leading global scientists, foreign government officials and industry leaders.

“Dr Naidoo is among South Africa’s most accomplished medical scientists playing a leading role in tuberculosis research,” said Professor Salim Abdool Karim, Director of CAPRISA. “Her seminal findings have had a direct impact on saving the lives of patients with HIV-TB co-infection and the treatment approach for HIV-TB co-infection in almost all countries in the



Prof Kogie Naidoo with Dr Thomas Nyirenda, EDCTP Strategic Partnerships and Capacity Development Manager

world draws upon her research.” Naidoo the Deputy Director and Head of Treatment Research at CAPRISA said she was “deeply humbled to receive the prize which served as an inspiration to female scientists to persevere. She has made major contributions to AIDS care and treatment in southern Africa. Her research has focussed on reducing mortality in TB-HIV co-infection, immune reconstitution inflammatory syndrome, additive drug toxicity and drug interactions; the outcomes of which have shaped local and international clinical and policy guidelines.

She was recently inducted as a member of the Royal Society of South Africa and is a member of the Academy of Science of South Africa. Naidoo serves on the WHO HIV Clinical Guideline Committee, the National Institutes of Health’s (in the US) ACTG TB Transformative Science Group, the South African National TB Think Tank and the National Drug resistance TB Clinical Advisory Committee and is honorary associate Professor in the College of Health Sciences at the University of KwaZulu-Natal (UKZN).

Read more here: <https://www.edctp.org/stay-up-to-date/news/>

UKZN Lifetime achievement award for distinguished alumni

Profs Salim and Quarraisha Abdool Karim, Director and Associate Scientific Director were honoured by the University of KwaZulu-Natal’s (UKZN) Nelson Mandela School of Medicine and received lifetime awards for their contributions to medicine, science and public health leadership at the Living Legends event held at the Medical School in November 2023.

The Minister of Home Affairs and former Health Minister, Dr Aaron Motsoaledi and former Aaron Beare Professor and Head of UKZN’s Department of Rheumatology, Emeritus Professor Girish Mody were also honoured at the event.

Professor Busi Ncama the College of Health Sciences Deputy Vice-Chancellor said the living legends event not only raised the UKZN flag high but also showcased South Africa as a global leader in research excellence.



Photo (L-R): Dr Aaron Motsoaledi The Minister of Home Affairs & former Minister of Health, Prof Emeritus Girish Mody former Head of UKZN’s Department of Rheumatology, Prof Busi Ncama DVC College of Health Sciences, Prof Ncoza Dlova Dean of the School of Clinical Medicine, Profs Quarraisha and Salim Abdool Karim Associate Scientific Director & Director of CAPRISA



Prof Penny Moore’s outstanding inaugural lecture

Professor Penny Moore delivered her inaugural lecture titled: “The Great Escape – how viruses evade immunity” on 1 November at the Solomon Mahlangu House, at the University of Witwatersrand.

Moore is the South African Research Chair of Virus-Host Dynamics, Research Professor and Academic Head of the Divisions of Virology and Immunology at the University of the Witwatersrand and the National Institute for Communicable Diseases (NICD) in South Africa.

She is Director of the Antibody Immunity Research Unit (AIRU), an extramural unit of the SA Medical Research Council and holds a joint appointment as Honorary Senior Scientist in CAPRISA.



Viruses are notoriously changeable, mutating their coat proteins to become invisible to antibodies. The immune system is as variable, with randomly joined strings of genes and mutations creating a myriad of ways in which antibodies can target viruses.

Penny Moore has spent 20 years studying the “arms race” between HIV and antibodies, to gain insight into how to make

an HIV vaccine. These lessons proved pivotal as COVID-19 emerged, and SARS-CoV-2 variants of concern challenged the ability of our vaccines to prevent infection.

Moore said “It was wonderful to celebrate with many of the people who were such an important part of this twenty-year journey!”

Dr Rubeshan Perumal elected to serve as an investigator on the ACTG’s TB Transformative Science Group



Dr Rubeshan Perumal, CAPRISA Senior Scientist has been elected to serve on the ACTG’s Tuberculosis Transformative Science Group (TB TSG).

“Your qualifications were very impressive, and it is with great pleasure that we welcome you as an Investigator on the TB TSG” wrote Committee Group Coordinator, of the AIDS Clinical Trials Group (ACTG) Network Coordinating Center, Brandon Brown. The (TB) TSG is responsible for the development, implementation, and oversight of the

ACTG research agenda related to the treatment and prevention of TB with and without HIV co-infection.

Perumal said that he looked “forward to contributing to the important work of the TB TSG.”

Medical student receives the 2023 Health Excellence Rising Star Award



Mr Mohamed Hoosen Suleman, a fifth-year medical student at the University of KwaZulu-Natal (UKZN) and a CA-

PRISA Research Placement was announced the winner of the 2023 South African Health Excellence Rising Star Award. The award by the Health Clinix Group and the South African Clinician Scientists’ Society was made at an awards ceremony on 25 November, held in Johannesburg. The award recognises inspiring leaders who have served as visionaries and mentors in the medical community.

Photo (L-R) Mr Mohamed Hoosen Suleman is congratulated by Prof Ncoza Dlova, Dean of the School of Clinical Medicine and Head of the Department of Dermatology, University of KwaZulu-Natal



World AIDS Day in South Africa & Japan



“Lessons learnt from HIV/AIDS and COVID-19 research and a message to Japanese researchers”, was the title of the special lecture delivered by Professors Salim and Quarraisha Abdool Karim on 29 November at the National Centre for Global Health and Medicine Shinjuku City, Tokyo. The Abdool Karims were invited by the government of Japan as the laureates of the 4th Hideyo Noguchi Africa Prize and were joined by Dr Kei Sato and Dr Ken Ishii of the Institute of Medical Science in Tokyo.

The Abdool Karims' lectures highlighted the importance of equitable access to life-saving medicines, new diagnostics, therapeutics and vaccines, community involvement, pandemic preparedness strategies, consistent science communications, and a co-ordinated global response to pandemics. The lessons from HIV and COVID are underscored by global solidarity, political will, powerful advocacy and sustained investment in science they said.



On 30 November, the Abdool Karims addressed a briefing session of the “Diet AIDS Task Force” of Japan’s House of Representatives held in the Diet chambers of the parliamentary building. This session was chaired by Mr Ichiro Aisawa a member of the House of Representatives in Japan.

Photo left (L-R): Honourable Ichiro Aisawa, Dr Di Stewart of the Global Fund, Profs Quarraisha & Salim Abdool Karim, Prof Kiyoshi Kurokawa, Honourable Mami Tamura, member of the House of Councillors, and Mr Masaki Inaba Program Director Global Health, Africa Japan Forum.



Mr Patrick Mdlletshe, CAPRISA’s Head of Community Programme (*second from the left in the photo*) delivered the keynote address at the University of KwaZulu-Natal, AHRI, CAPRISA and SANTHE World Day event held on 1 December, at the Nelson Mandela School of Medicine campus, themed “Let communities Lead”.

He warned that “our country has much to do to get our AIDS response back on track and we cannot do so without active community engagement and leadership. In sub-Saharan Africa, adolescent girls and young women accounted for more than 77% of new infections among young people aged 15-24 years in 2022.” He stressed that community empowerment in understanding science was the cornerstone of HIV prevention.



Mdlletshe participated in the national government’s World AIDS Day event held in Mandeni, iLembe District in Kwa-Zulu-Natal. South Africa’s Deputy President Paul Mashatile, in his capacity as the Chairperson of the South African National AIDS Council (SANAC) delivered the keynote address.

Photo above: Engaging with communities. CAPRISA hosted members of the ECRS Community Support Research Group (CSRG) in November to an information sharing session to empower members in the understanding of scientific research.



Scientists participate in the 11th EDCTP Forum



CAPRISA's PhD candidate, Ms Nomusa Zondo, Clinician Scientist, Dr Sharana Mahomed and Associate Professor Desh Archary participated in the 11th EDCTP Forum held at the Palais des Congrès de Paris in Paris, France from the 7-10 November themed 'Partnering for Global

Health Research Innovation and Impact in Africa – Celebrating EDCTP: two decades and beyond'.

Archary chaired the 'Meet-the-Expert' session for junior researchers to "connect early career with mid to senior level scientists."

Mahomed's poster presentation entitled "Circulating immunoglobulins and the development of transient lymphocytopenia in the phase 1 CAPRISA 012B trial testing HIV monoclonal antibodies" described the development of lymphocytopenia that was not clinically significant in the CAPRISA 012B trial. These data highlighted that baseline immunological markers may identify those at increased risk of developing acute, albeit transient lymphocytopenia in HIV prevention trials.

Zondo's poster presentation entitled "Drug transporter expression in South African women exposed to pre-exposure prophylaxis (PrEP)" highlighted that PrEP exposure and genital inflammation may play a role in modulating mRNA expression of ABC and SLC drug transporters in the FGT and blood over time.

Photo (L-R) Dr Sharana Mahomed, Ms Nomusa Zondo & Associate Prof Desh Archary

Dr Leila Mansoor represents the MATRIX consortium in Washington



Dr Leila Mansoor, CAPRISA Senior Scientist and CAPRISA MATRIX Grant PI was invited to represent the MATRIX Consortium – a U.S. Agency for International Development (USAID) Project to Advance the Research and Development of Innovative HIV Prevention Products for Women – at the USAID Office of HIV/AIDS (OHA) Partners Meeting in Washington DC in October. The meeting brought together USAID OHA Research Division colleagues and key staff from supported projects.

The objectives of the meeting were to strengthen cross-cutting collaborations and harness collective expertise for program impact. Mansoor presented an overview and update on the MATRIX program to the USAID Country Mission representatives at the USAID offices. MATRIX is a five-year program funded by USAID. "MATRIX, through funding from USAID, has put choice and options for women back on the HIV Prevention agenda," said Mansoor.

Addressing students at the international science festival in Italy



The international science festival, Trieste Next themed 'A new world: Science, culture and innovation for a sustainable future', was held earlier this year and 'Science for a better world', was part of the 2023 edition of Trieste Next. Professor Quarraisha Abdool Karim, President of TWAS addressed the audience including school children on the inspiration of science and the generation of innovative ideas to change the world for future generations.

The event attracts local and international scientists, journalists, professionals, policymakers and students. Abdool Karim's talk highlighted the importance of science in addressing global challenges facing the world. Most scientists, she said, are in the profession because

"they want to leave behind a better world for humanity. They are typically engaged in the work of solving problems relevant to the world's greatest challenges, such as disease," she said.



Visits strengthen partnerships



Photo left: Dr Manjula Gunawardena (centre), Senior Research Scientist, Oak Crest Institute of Science (OCIS), Monrovia, CA, USA visited CAPRISA earlier this year and met with Dr Tanuja Gengiah Senior Scientist & Head of Pharmacy on the left and Prof Salim Abdool Karim on the right in the photo. Gunawardena, facilitates and leads microbiology and molecular biology research at OCIS. He visited the CAPRISA eThekweni research clinic and the CAPRISA main laboratory at the DDMRI offices.

Photo right: Dr Lucio Gama (left), Senior Advisor, Scientific Collaborations, Vaccine Research Center (VRC), National Institutes of Health (NIH), USA visited CAPRISA on 6 Nov 2023. Gama met with research clinicians at CAPRISA's eThekweni Research clinic and interacted with a CAPRISA 012C participant. He held discussions with Prof Salim Abdool Karim (right) and Dr Tanuja Gengiah (centre) and met scientists in the main laboratory.



Photo (L to R): Prof Nigel Garrett (Head of Vaccine and Pathogenesis research CAPRISA) , Dr Kwabena Asare (Statistician CAPRISA), Dr Jennifer Brown (Post doc University of Basel) , & Dr Niklaus Labhardt (Head of Clinical Epidemiology University of Basel) , Ms Kwena Tlhaku (Research Assistant CAPRISA), Dr Johan van der Molen (Data Analyst CAPRISA)

The CAPRISA SHAPE team hosted Professor Niklaus Labhardt and Dr Jennifer Brown from University Hospital Basel on 20 November. The researchers delivered a presentation entitled “Improving the care cascade in a decentralised national HIV programme: Insights from 10 years of research collaborations in Lesotho”. As part of her post-doc next year, Dr Brown will be visiting CAPRISA and examining the impact of changes in ART guidelines on patient clinical outcomes.

PhD study informs the design of future TB treatment options

Dr Rubeshan Perumal obtained his PhD at the University of KwaZulu-Natal's graduation ceremony earlier this year for his doctoral study entitled, “Optimising the pharmacological treatment of drug-susceptible pulmonary tuberculosis”. Perumal said: “The studies within my thesis



advance our understanding of first-line TB drug pharmacokinetics, provide a robust evaluation of a fluoroquinolone-containing regimen for recurrent TB, identify potential challenges from unexpected, altered drug exposure from drug-drug interactions, illuminate the problem of low rifampicin concentrations in critically ill patients with TB, and provide evidence to support the implementation of therapeutic drug monitoring for dose

-optimisation in this patient population.” The findings provide key insights for optimising the treatment of drug-susceptible TB, including the importance of vigilance for unexpected drug-drug interactions in the design of novel treatment regimens and therapeutic drug monitoring's potential to improve drug exposure in critically ill TB patients. This will inform the design of future treatment options.

Perumal is a senior scientist at CAPRISA and a Specialist Physician and Pulmonologist at Inkosi Albert Luthuli Central Hospital (IALCH) and was co-supervised by Profs Kogie Naidoo CAPRISA Deputy Director and Nesri Padayatchi Senior Scientist.



A selection of scientific papers published in 2023

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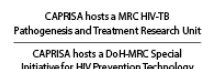
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