



# CAPRISA

CENTRE FOR THE AIDS PROGRAMME OF RESEARCH IN SOUTH AFRICA

Newsletter

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## CAPRISA - contributing to the South African Covid-19 response

### In this Issue

Our feature story this month focuses on CAPRISA's role in the South African Covid-19 response and the appointment of Professor Salim Abdool Karim as the Chair of the Ministerial Advisory Committee on Covid-19.

On page 2, Professors Salim and Quarraisha Abdool Karim are named the recipients of the prestigious John Dirks Canada Gairdner Global Health award.

A special tribute to a friend, colleague and fellow scientist, Professor Gita Ramjee who passed away from Covid-19 related complications is provided on page 3.

On page 4, we highlight the case book, *Radiological Features of TB in HIV Co-infected Patients*, edited by Prof Kogie Naidoo from CAPRISA and Dr Kamlesh Daji, a diagnostic radiologist; and the publication: *COVID 19 : Science and Global Health Governance under attack*, by CAPRISA's Head of Ethics and Law, Prof Jerome Singh.

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CAPRISA has stepped up to make a significant contribution to the fight against the COVID-19 pandemic in South Africa.

Professor Salim Abdool Karim, CAPRISA's Director has been appointed the over-arching Chairperson of the Ministerial Advisory Committee on COVID-19 (MAC) that was established by Minister Zweli Mkhize. This committee includes 50 professionals from a diverse range of scientific and medical background to provide high level advice to the Minister of Health and the National Department of Health.

In addition, the committee is required to use its expertise, linkages, resources and influence to help the department overcome obstacles, bottlenecks as identified by the National Departmental Health in its response to the coronavirus epidemic.

The Ministerial Advisory Committee has 4 sub-committees: Laboratory services, chaired by Professor Koleka Mlisana; Clinical services chaired by Professor Marc Mendelson; Public Health, chaired by Professor Shabir Madhi; and Research chaired by Professor Glenda Gray. Professor Quarraisha Abdool Karim, CAPRISA's Associate Scientific Director is a member of the Public Health sub-committee and is a member of the Executive

Group of the International Steering Committee for the COVID-19 SOLIDARITY Trial. Professor Lynn Morris, Interim Executive Director of the National Institute for Communicable Diseases (NICD) and Honorary Senior Scientist at CAPRISA, is playing a leading role in COVID-19 testing in the country and is a member of the MAC laboratory sub-committee.

President Ramaphosa, declared a national lockdown in South Africa effective at midnight on 26th March to mitigate the transmission of the SARS-CoV-2 virus and on 9<sup>th</sup> April the lockdown was extended to 30<sup>th</sup> April. These were unprecedented measures to control an unprecedented epidemic.

On 13<sup>th</sup> April, President Ramaphosa and the National Covid-19 Command Council mandated the Minister of Health, Dr Zweli Mkhize to hold a live zoom public engagement to deal with technical aspects relating to the country's COVID-19 response.

This meeting was joined by experts on Covid-19 and Professor Salim Abdool Karim, delivered a presentation titled: '*South Africa's Covid-19 epidemic: Trends and next steps*' which was broadcast live on three national television channels.

*Continued on page 2*

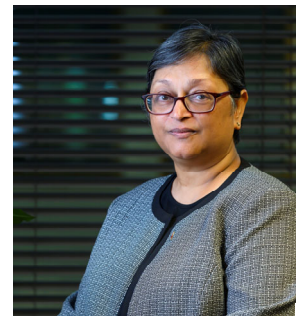


Photo (top): Professor Salim Abdool Karim, Chair of the Ministerial Advisory Committee (MAC), (middle) Professor Quarraisha Abdool Karim, member of the Public Health MAC committee and (bottom) Professor Lynn Morris, member of the Laboratory MAC committee.



# Salim and Quarraisha Abdool Karim named recipients of the 2020 John Dirks Canada Gairdner Global Health Award

CAPRISA's Professors Salim and Quarraisha Abdool Karim are the laureates of the prestigious 2020 John Dirks Canada Gairdner Global Health Award awarded for outstanding achievements in global health research."

The Gairdner Foundation announced the 2020 Canada Gairdner Award laureates on 31<sup>st</sup> March, recognizing some of the world's most significant biomedical research and discoveries.

The Foundation said that "During these challenging times, we believe it is important to celebrate scientists and innovators from around the world and commend them for



their tireless efforts to conduct research that impacts human health."

The world-renowned infectious disease epidemiologists received the award "for their discovery that antiretrovirals prevent sexual transmission of HIV, which laid the foundations for pre-exposure prophylaxis (PrEP), the HIV prevention strategy that is contributing to the reduction of HIV infection in Africa and around the world.

The research undertaken in Africa by this South African couple has played a key role in shaping the local and global response to the HIV epidemic, said the Foundation.

*Continued from page 1.*

In addition to the contribution to the MAC, CAPRISA is conducting several COVID-19-related studies including a prospective epidemiological and phylogenetic study to establish how the SARS-COV-2 coronavirus is spreading in urban and rural KwaZulu-Natal in order to guide locally appropriate prevention and clinical care.

Professor Quarraisha Abdool Karim is providing support to the National Health Laboratory Service (NHLS) for their testing outreach activities and Professors Nesri Padayatchi and Kogieleum Naidoo are supporting the KwaZulu-Natal's Provincial Department of Health's response to COVID-19.

The CAPRISA mobile clinic in the Umgungundhlovu district was assigned to pilot the outreach in Ward 9. The study received funding from the Department of Science and Innovation (DSI) through the South African Medical Research Council (SAMRC) for research on COVID-19 transmission.

Watch Professor Abdool Karim's presentation here:

<https://www.youtube.com/watch?v=HLTQeMCtfo>

## MAC COVID-19 Members

Angelique Coetzee, Anne van Gottberg, Cheryl Cohen, Dean Gopalan, Eftyhia Vardas, Elijah Nkosi, Francesca Conradie, Francois Venter,

Gesine Meyer-Rath, Glaudina Loots, Glenda Gray, Harry Moultrie, Helen Rees, Ian Sanne, Imraan Patel, Jacqui Miot, James McIntyre,

Jeremy Nel, John Black, Juliet Pulliam, Kamy Chetty, Kerrigan McCarthy, Koleka Mlisana, Lance Lasersohn, Lindiwe Ringane ka Seme, LR Mathivha, Lucille Blumberg,

Lynn Morris, Marc Mendelson, Matildah Mokgatle, Moherndran Archary, Morgan Chetty, Motlaji Maloba, Natalie Mayet, Ndiviwe Mphothulo, Nombulelo Magula, Prakash Jeena,

Quarraisha Abdool Karim, Salim Abdool Karim, Shabir Banoo, Shabir Madhi, Shaheen Mehtar, Sibulele Bandezi, Silingene Ngcobo, Simon Nmutandani, Sithembiso Velaphi, Theo Lightem, Wendy Stevens, Wolfgang Preiser, Yunus Moosa, Zinhle Makatini



## A tribute to a friend, colleague and fellow scientist: Gita Ramjee

I learnt with deep sadness of the untimely death of Professor Gita Ramjee who passed away in hospital on Tuesday 31<sup>st</sup> March from a COVID-19 related illness. Gita Ramjee was not only a colleague, but she was a dear friend, a scientist and scholar in HIV prevention, a mother of two sons, a grandmother and a wife to her husband Pravin.

On behalf of CAPRISA, Quarraisha and I wish to extend our heartfelt condolences to her family and friends. Her passing is an immense loss and has left an indelible void in HIV research and treatment, particularly on the African continent.

Gita Ramjee was the Chief Scientific Officer of HIV Prevention at the Aurum Institute. For several years she held the position of Chief Specialist Scientist and Director of the South African Medical Research Council's HIV Prevention Unit as well as Clinical Professor of Global Health, in the Department of Global Health, in the School of Medicine, at the University of Washington, Seattle. She held an Honorary Professorship in the Department of Epidemiology and Population Health at the London School of Hygiene & Tropical Medicine, in the UK and was an honorary scientist at CAPRISA.

She was a Fellow of the Royal College of Physicians in Edinburgh and received several awards and accolades for her scientific work. Most recently, in 2018, she was awarded the EDCTP/ European Union Outstanding African Female Scientist award and in 2017 she received the SAMRC Gold Medal Scientific Achievement Award. She was a member of several local and international committees and published more than 200 research articles.

She epitomised dedication and commitment to her scientific calling – to control the HIV epidemic through clinical scientific rigour. I recall my first discussion with her while she was a post-doc with Prof Coovadia doing research on kidney disease – her passion, commitment and dedication to science shone through so clearly that I recruited her to join me at the MRC a few months later. She climbed through the ranks at the MRC to eventually succeed me as the Head of the MRC's HIV Prevention Research Unit. She was an excellent role model of what can be achieved through sheer determination and hard work.

It was a privilege to mentor and work with Gita over the past 26 years. Known for her unwavering tenacity she embarked on new challenges with boldness and enthusiasm. This was the key to her success – her innate ability to persevere.

In an interview in 2018, her poignant words



summed up the chutzpah of Gita Ramjee, "I did not dream that the love of my job, my passion and drive would get me this far! If I was much younger and not committed to my family life, I think I would like to have done a medical degree after my PhD."

Professor Ramjee trained as a basic scientist at the University of Sunderland in the United Kingdom. She completed a Masters degree in the role of aflatoxins in childhood malnutrition at the former University of Natal. She received a MRC scholarship to pursue her PhD which focused on the role of proteinuria in childhood kidney diseases. Thereafter, she worked with me leading the COL-1492 vaginal microbicide trial for the prevention of HIV among a group of sex workers working along the trucking route between Durban and Johannesburg. She later commented that the trial was her introduction to HIV prevention among high risk populations. Her commitment to clinical research in HIV prevention was exponential and she was an investigator on almost all microbicide trials since then. I have fond memories of Professor Gita Ramjee – her passion, drive and tenacity which she believed are 'critical traits to have for scientific excellence'.

She will be remembered for her commitment to finding ways to empower women to protect themselves from HIV and for making a difference in the lives of so many researchers and research participants over the years. May her soul rest in peace.

**Salim S Abdool Karim**



# Radiological Features of TB in HIV Co-infected Patients

This case book, *Radiological Features of TB in HIV Co-infected Patients*, edited by Professor Kogje Naidoo, Head of CAPRISA's HIV&TB treatment research and Dr Kamlesh Daji, a diagnostic radiologist, describes and discusses varied radiological manifestations of TB among HIV-infected patients using available routine chest radiographs.

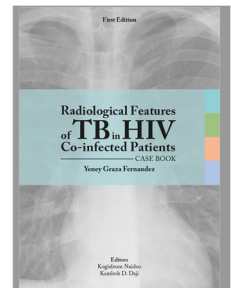
Improvement in clinicians' knowledge of typical and atypical features of TB, will improve TB case identification, timely TB treatment initiation and better health outcomes in settings endemic to TB and HIV, explained Naidoo.

She said that 'the last decade has witnessed enormous advances in the prevention, diagnosis and treatment of TB'. "Despite this, TB remains the leading cause of

death from an infectious disease globally, and the leading cause of death from any cause in South Africa. Poor identification, and delayed diagnosis of TB remain the main contributors of ongoing high levels of TB transmission and TB-associated morbidity and mortality.

The handbook, initiated by the KwaZulu-Natal Department of Health clinician, Dr Yeney Graza Fernandez, will serve as a quick reference guide to frontline clinicians grappling with interpreting varied radiologic features of TB in HIV.

Naidoo said that the first 1,500 copies of the book will be made freely available to frontline clinicians, and will be distributed through existing training networks of district training co-ordinators, regional training centres, and support partners throughout the country.



## COVID-19: Science and global health governance under attack

Recent developments in the US and SA highlight that misguided ideology, partisan information flows, politics, and pseudoscience pose a critical threat to science and undermines global health governance.

In the US, President Donald Trump, has touted an antimalarial drug as an effective treatment against COVID-19 without sufficient corroborative scientific evidence, and against the advice of senior scientists. With the US now leading the world on COVID-19 incidence and mortality, Trump has sought to blame the WHO for this parlous state of affairs.

On 14 April 2020, Trump announced that he was halting funding to the WHO while a review was conducted of the WHO's 'role in severely mismanaging and covering up the spread of coronavirus'. Trump's decision to scapegoat the WHO in an attempt to distract attention away from his administration's domestic failings, is amoral and constitutes an assault on global health governance, endangers public health, and is akin to committing 'a crime against humanity'.

Meanwhile, in South Africa, soon after the country's lockdown was announced, an obscure local

NGO bought an urgent application to the Constitutional Court, arguing against the lockdown on the grounds that COVID-19 was not being harmful to Africans. While the Constitutional Court dismissed the application, the case revealed that charlatans were peddling scientific falsehoods, and that such information was being misused for misguided political and ideological ends.



The US and South African experiences underscore how easily a populist, hyper-partisan, fragmented global information ecosystem can undermine science and threaten health governance.

- Jerome Singh.

### For further reading see:

Singh JA. COVID-19: Science and global health governance under attack. *South African Medical Journal* 2020;110(5):. DOI:10.7196/SAMJ.2020v110i5.14820. Accessible: <http://www.samj.org.za/index.php/samj/article/view/12908>



## Scientific papers published in 2020

- 8\* Misra N, **Padayatchi N**, Naidoo P. Dose-related adverse events in South African patients prescribed clofazimine for drug-resistant tuberculosis. *South African Medical Journal* 2020; 110(1):32-37.
- 9 Furin J, **Loveday M**, Hlangu S, Dickson-Hall L, le Roux S, Nicol M, Cox H. "A very humiliating illness": a qualitative study of patient-centered Care for Rifampicin-Resistant Tuberculosis in South Africa. *BMC Public Health* 2020; 20(1):76 doi: 10.1186/s12889-019-8035-z.
- 10 Joseph Davey DL, Pintye J, Baeten JM, Aldrovandi G, Baggaley R, Bekker LG, Celum C, Chi BH, Coates TJ, Haberer JE, Heffron R, Kinuthia J, Matthews LT, McIntyre J, **Moodley D**, Mofenson LM, Mugo N, Myer L, Mujugira A, Shoptaw S, Stranix-Chibanda L, John-Stewart G; PrEP in Pregnancy Working Group. Emerging evidence from a systematic review of safety of pre-exposure prophylaxis for pregnant and postpartum women: where are we now and where are we heading? *Journal of the International AIDS Society* 2020 23(1):e25426. doi: 10.1002/jia2.25426.
- 11 Vandormael A, **Tanser F**, Cuadros D, Dobra A. Estimating trends in the incidence rate with interval censored data and time-dependent covariates. Statistical methods in medical research. *Statistical Methods in Medical Research* 2020;29(1): 272-281.
- 12 Ayton SG, Pavlicova M, Tamir H, **Abdool Karim Q**. Development of a prognostic tool exploring female adolescent risk for HIV prevention and PrEP in rural South Africa, a generalised epidemic setting. *Sexually Transmitted Infections* 2020;96(1): 47-54.
- 13 Zhao LP, Fiore-Gartland A, Carpp LN, Cohen KW, Roupael N, Fleurs L, Dintwe O, Zhao M, Moodie Z, Fong Y, **Garrett N**, Huang Y, Innes C, Janes HE, Lazarus E, Michael NL, Nitayaphan S, Pitisuttithum P, Rerks-Ngarm S, Robb ML, De Rosa SC, Corey L, Gray GE, Seaton KE, Yates NL, McElrath MJ, Frahm N, Tomaras GD, Gilbert PB. Landscapes of binding antibody and T-cell responses to pox-protein HIV vaccines in Thais and South Africans. *PLoS One* 2020; 15(1):e0226803. doi: 10.1371/journal.pone.0226803.
- 14 Ditse Z, Mkhize NN, Yin M, Keefer M, Montefiori DC, Tomaras GD, Churchyard G, Mayer KH, Karuna S, Morgan C, Bekker LG, Mlisana K, Gray G, Moodie Z, Gilbert P, **Moore PL, Williamson C, Morris L**. Effect of HIV Envelope Vaccination on the Subsequent Antibody Response to HIV Infection. *mSphere* 2020; 5(1): e00738-19.
- 15 Hill J, Dickson-Hall L, Grant AD, Grundy C, Black J, Kielmann K, Mlisana K, Mitrani L, **Loveday M**, Moshabela M, Le Roux S, Jassat W, Nicol M, Cox H. Drug-resistant tuberculosis patient care journeys in South Africa: a pilot study using routine laboratory data. *The International Journal of Tuberculosis and Lung Disease* 2020; 24(1):83-91.
- 16 **Perumal R, Naidoo K, Naidoo A**, Ramachandran G, Requena-Mendez A, Sekaggya-Wiltshire C, Mpagama SG, Matteelli A, Fehr J, Heysell SK, **Padayatchi N**. A systematic review and meta-analysis of first-line tuberculosis drug concentrations and treatment outcomes. *The International Journal Tuberculosis and Lung Disease*; 2020; 24(1):48-64.
- 17 Thakoordeen-Reddy S, Winkler C, Moodley J, David V, Binns-Roemer E, **Ramsuran V**, Naicker T. Maternal variants within the apolipoprotein L1 gene are associated with preeclampsia in a South African cohort of African ancestry. *European Journal of Obstetrics, Gynecology, and Reproductive Biology* 2020; 246:129-133.

\*continuation from previous newsletter



CAPRISA hosts a DST-NRF Centre of Excellence in HIV Prevention



**UNAIDS**  
CAPRISA is the UNAIDS Collaborating Centre for HIV Research and Policy



CAPRISA hosts a MRC HIV-TB Pathogenesis and Treatment Research Unit

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