WE ARE NOT SAFE UNTIL WE ARE ALL SAFE
OUR SCIENCE AT A GLANCE

Leading research and innovation in a time of COVID-19

Since the start of COVID-19, the South African Medical Research Council (SAMRC) has been responsive to change, leading research and dialogue on the pandemic. We also continued with pioneering cutting-edge medical innovations and programmes to support the South African Government’s response to the pandemic to improve the quality of life and health status of people in South Africa.

Over 260 million South African Rand has been raised and allocated to more than 50 COVID-19 research and development projects, including 30 projects that are supported with South African Department of Science and Innovation (DSI) funds. The SAMRC, in partnership with the DSI and Technology Innovation Agency (TIA), is funding several COVID-19 diagnostic product development projects and has co-funded the participation of South Africa in vital global studies on COVID-19 treatment and prevention, including the Solidarity Trial, the CROWN Coronation study, and several vaccine studies.

The SAMRC has also supported studies on COVID-19 surveillance and epidemiology that have laid the foundation for enhanced infection control practices in healthcare settings, contributed to community surveillance initiatives and improved understanding of the pandemic in South Africa.

Emerging Research and Practice on GBV in the time of COVID-19

While South Africa and the rest of the world continue to confront the COVID-19 pandemic, there has been concern of an upsurge in gender-based violence (GBV), particularly during the lockdown. Reiterating our indelible mark in the country’s ongoing fight against GBV, we have led research and dialogue in trying to understand what has happened and make further strides to preventing women and girls from being exposed to GBV.

Through our Gender and Health Research Unit (GHRU) we have investigated the link and impact of COVID-19 to gender-based violence, mental health, and livelihoods amongst selected population groups. Led by Dr Pinky Mahlangu, a Specialist Scientist within GHRU as a Principal Investigator (PI), the study highlighted contrasting experiences and impact of COVID-19 and the hard-lockdown contingent on the socio-economic status and employment sector. While the lockdown has had a positive impact on relationships in the home in some families, it has negatively impacted on livelihoods, mental health, with some participants reporting emotional and physical violence experiences during this time. Data suggest that COVID-19 has exacerbated inequalities in society, with possible long-lasting impact which require intervention.

Also, Dr Nwabisa Shai, another Specialist Scientist within GHRU, led the development of the second GBV Strategy for the Solidarity Fund (funded by the Bill and Melinda Gates Foundation). Dr Shai provided expert advice to the Fund to develop a Theory of Change and identify sustainable solutions, while leading the stakeholder consultations to prioritise the strategic focus areas and identified solutions.

This culminated into the allocation and provision of R75 million in funding through a nation-wide Call for Applications to support critical GBV activities, programmes and services of eligible community-based organisations (CBOs) and non-profit organisations (NPOs). The funding focused on GBV related prevention, response and access to justice and aspects of GBV work identified through the stakeholder consultations. The prevention programmes included early childhood prevention and parenting programmes, while the response programmes and services prioritised mental health.

The GHRU is also exploring Sexual and Reproductive Health and Rights of Young Women in eThekweni under the COVID-19 Pandemic. The Unit, which was instrumental in the development of the National Strategic Plan on GBV and Femicide, has also proposed a study on Femicide and child homicide during the COVID-19 pandemic in South Africa.
Together, saving lives through Sisonke

Prioritizing our healthcare workers and keeping us all safe!

The SAMRC has played a key role in initiating the national rollout of COVID-19 vaccination in South Africa through an implementation study known as Sisonke. “Sisonke” is a South African word meaning “together”. Through the Sisonke Study, we have enabled government to make the Ad26.COV2.S COVID-19 vaccine (JnJ vaccine) immediately available to healthcare workers using a research programme. As part of the initial phase of the national vaccine programme, up to 500,000 healthcare workers have been vaccinated at over 93 vaccination sites nationwide. This was necessary to maintain a healthy work force to deal with the predicted third wave of COVID-19 infections and admissions.

Halfway through, the South African Health Products Regulatory Authority (SAHPRA) temporarily suspended the Sisonke study to investigate extremely rare and severe blood clots detected in six out of about 6.8 million people vaccinated with the JnJ vaccine in the United States. However, the study resumed after approval was granted to proceed with an amended protocol to augment safety and oversight. This time, more rigorous pre-vaccination screening and post-vaccination monitoring of participants at risk of blood clotting disorders were introduced after the resumption.

Although the decision to pause the Sisonke Study initially precipitated a rise in vaccine hesitancy and fall in demand for COVID-19 vaccination, healthcare workers were later queuing in large numbers at vaccination sites across the country in the last week of the study; seizing the chance to get vaccinated ahead of the national rollout which started on Monday, 17 May 2021. Largely, this was achieved through widespread public and participant (both past and future) communication, education of vaccination staff and other healthcare workers, and an increase in the number of vaccination sites from the initial 46 to 93 across the country, including in rural areas.
OUR SCIENCE AT A GLANCE

Using wastewater to detect COVID-19 in our communities

Shortly after the start of the COVID-19 pandemic, the organisation brought together five of its research units including the Environment and Health Research Unit, Biomedical Research and Innovation Platform, Tuberculosis Platform, Genomics Centre and the Biostatistics Unit, to design and coordinate a wastewater surveillance programme.

This later culminated into the organisation launching the SARS-CoV-2 Wastewater Surveillance Dashboard – a wastewater-based early warning system through which levels of COVID-19 could be detected in our communities. The information is then shared with the public and public health decision makers, based on data from more than 70 wastewater treatment plants across four provinces in the country: Eastern Cape, Gauteng, Limpopo, and the Western Cape.

The launch of the Dashboard is an extension of interventions developed by the SAMRC to support systems within the country to manage the COVID-19 pandemic. Through this resource, we hope that the relevant public health authorities will be able to use the results to mount timeous interventions such as increased testing and tracing to reduce community spread of COVID-19.

As an organisation committed to the development of the next generation of scientists, capacity development is a key element of the project – students and staff from partner institutions are being trained on laboratory methods, with the focus being on Under-Resourced Institutions. The Project Team works closely with our four partner laboratories, the University of Venda, Sefako Makgatho Health Sciences University, the University of Fort Hare and Nelson Mandela University, to build capacity and ensure robust quality management.

Using the wastewater-based early warning system for COVID-19, our scientists also detected the presence of the SARS-CoV-2 Delta variant in wastewater from several towns in the Western Cape, as well as the City of Cape Town.

OUR SCIENCE AT A GLANCE

SAMRC takes the lead in the First South African National TB Prevalence Survey

South Africa continues to face four colliding epidemics, with tuberculosis (TB) being among the combination. The country is one of the 30 high burden tuberculosis (TB) countries that contribute to 87% of the estimated incident TB cases worldwide, with SA accounting for 3% of this number. Among these 30 countries, the country is among the 14 with the highest burden of TB, TB/HIV and multi-drug resistant TB (MDR-TB).

These are some of the revelations by the first of its kind National Tuberculosis Prevalence Survey which was undertaken by the SAMRC in collaboration with the Human Sciences Research Council (HSRC) and the National Institute for Communicable Diseases (NICD) – the three organisations were commissioned by the Department of Health in 2016 in order to get a clearer picture of the TB epidemic in the country.

In the end, the study estimated that 390 000 people had TB in 2018, with 235 652 notified cases, showing that 154 348 people had TB in the country but not known by the National TB Control Programme. Of these figures, the disease was found to be more prevalent in men than in women by 1.6% – and this is especially the case for men between the ages of 35 and 44, and those 65 years and older.

Another critical finding was that more than two-thirds of HIV negative symptomatic participants had not sought care for their symptoms and that a higher proportion of HIV negative people are asymptomatic than those who are HIV positive.

Prof Martie Van der Walt, Director of the Tuberculosis Platform and the Principal Investigator of the Survey said the findings of this survey are a landmark event in the epidemiology of TB in South Africa and going forward, the results will provide much-needed evidence to influence response strategies, programmes and interventions to reduce morbidity and mortality of TB in the country.
Achieving excellence in all we do

Chris Silagy 2020 Prize Winner

Congratulations to Joy Oliver, Chief Administrator of Cochrane SA who ended 2020 with grand news. She scooped the Cochrane Chris Silagy Prize in the category of “Extraordinary contribution to the work of Cochrane”. The awards are named after Chris Silagy who was the founding Director of the then Australasian Cochrane Centre. After his passing in 2001, the Chris Silagy fund was established with the aim to recognise and award those individuals whose efforts, philanthropy and collaborations kept Cochrane in good stead. These awards are made annually at the Cochrane Colloquium.

SAMRC congratulates Joy Oliver for her 20 years of dedicated service to Cochrane. Her colleagues describe her as committed, capable, passionate, and always working to ensure that Cochrane South Africa, Cochrane Africa and Cochrane succeed in all they do.

Joy had this to say, “It’s a great privilege and honour to be awarded the Chris Silagy prize, for me, there is no greater acknowledgement for the work we do than this incredible award, which I will forever treasure. I would like to thank those who nominated me.”

“Only a great leader knows the importance of appreciating and acknowledging all its people to ensure the success of an organisation.” says Ms Oliver

“Joy personifies the spirit of collaboration that underpins Cochrane, and it is a pleasure to award her the 2020 Chris Silagy Prize for her extra-ordinary contribution to Cochrane.” said Sally Green, the chair of the awards committee.

From the SAMRC Intramural Postdoctoral Fellowship to a Professorship at Wits

“When a young scientist is promoted, there is new blood in the research community.” These are the words of Professor Janan Dietrich, who has completed 3 years of postdoctoral fellowship within the SAMRC Health Systems Research Unit. She was recently promoted to Associate Professor within the School of Clinical Medicine at the University of the Witwatersrand (Wits).

The promotion was presented through a virtual ceremony of the Faculty of Health Sciences, by the outgoing Dean, Professor Martin Velle in December of 2020.

Passionate about working with youth from disadvantaged backgrounds, Prof Dietrich has, for the last fourteen years, been the lead social scientist at the Perinatal HIV Research Unit, one of the SAMRC’s close associate organisations where she says she’s able to live her passion.

In the words of Professor Janan Dietrich, who has completed 3 years of postdoctoral fellowship within the SAMRC Health Systems Research Unit: “Being the recipient of SAMRC RCD funding has opened so many doors for me – I am now an Associate Professor! The SAMRC award is quite prestigious and as a result I have been awarded a CIPHER Growing the Leaders Fellowship through the International AIDS Society as well as a virtual fellowship with the University of Edinburgh” said Janan.

Dr Vundli Ramokolo, was also awarded a research grant to the tune of R160 000.00 by the Foundation L’Oréal for her study which measured the impact of Child Support Grant (CSG) on child growth, taking into account antecedents such as maternal health in pregnancy, and factors such as household food security, infant feeding and young child practices.

Furthermore, the study assesses whether disparities in the early growth of HIV exposed uninfected children can still be observed in the first two years of life, and also explores the influence of maternal HIV and ARV status on longer-term growth and neurodevelopment.

Grateful for the recognition, Dr Ramokolo said this prestigious award is a testament to the importance of her scientific contribution and that it gives her the confidence to continue with her quest to improve lives through science. “It is the much-needed financial support to carry-out my post-doctoral training and research activities, including a research stay at Columbia University to visit my postdoctoral professor. I will also use some of the funding for any training courses that I require, and for funding any research, publication, database development and maintenance costs.” said Ramokolo.

Professor Janan Dietrich is a previous beneficiary of the SAMRC’s Bongani Mayosi National Health Scholars and Intramural Post-Doctoral Programmes that are administered by the organisation’s Division for Research Capacity Development.

Although she recently joined the HIV Prevention Research Unit, for many years she was with the Health Systems Research Unit including at the time of applying for the awards.
Never cease to grow and add value

Congratulations to Dr Michelle Mulder who from 1 June took up the position of Executive Director for the Grants, Innovation and Product Development (GIPD) Division.

In her new role she will be strategically managing our Research & Development (R&D) funding, including SAMRC grant mechanisms and strategic funding partnerships, to enable the SAMRC to fund and support cutting edge research that impacts on the lives of South Africans. The role also focuses on supporting and driving innovation, both within the SAMRC and with external innovation projects aimed at developing new health solutions.

Dr Mulder has spent 10 years consulting on technology innovation through her own company and has been involved for the last 17 years in the strategic management and commercialization of the SAMRC’s intellectual property and in capacity building in these areas in southern and east Africa.

She has also spent the last 8 years managing grant funding for the SAMRC. She has been heading the Technology Transfer Office, the Global Health Innovation Accelerator and the GIPD HIV Programme, and provided oversight of various other grant programs and strategic projects for GIPD.

Dr Mulder has also been extensively involved in the SAMRC’s funding response to COVID-19. She served as a member of the Executive Committee of the Southern African Research & Innovation Management Association (SARIMA) for 10 years, including 3 years as Vice President: Innovation and Technology Transfer, and 2 years as President. She served previously as Chair of the Board of Acorn Technologies, a life sciences incubator, a Director of the Licensing Executive’s Society South Africa, the South Africa Liaison for the Life Sciences Committee of LESI, and a member of the Higher Education South Africa (HESA) Strategy Group for Innovation and Technology Transfer. She currently serves as a Board Member of the Biologicals and Vaccines Institute of SA (Biovac) and two SAMRC linked companies and is a member of the NHLS Research and Innovation Committee.

When asked about her new position, Dr Mulder said she is honoured and excited to be entrusted with leading GIPD for the next five years, building on a solid base, operational structure and team established by her predecessor, Prof Richard Gordon.

“I plan to work with the team of Program Managers and our existing and new strategic partners to expand the funding base and other support for health research and innovation, focusing substantially on increasing innovation outputs,” said Mulder.

She adds that the SAMRC has a key role to play in building the capacity for and driving health innovation in all sectors in South Africa to ensure the delivery of new health solutions and this is facilitated largely through GIPD.

“I also plan to work with the team to expand our reach and impact more broadly on the continent.”

She holds a doctorate in Medical Microbiology from the University of Cape Town and has post-doctoral experience in a start-up biotechnology company emanating from the University of Cambridge (UK).

We mourn the loss of colleagues

We mourn the passing of Mrs Louisa Atkins on the 14th July 2021, she was our Receptionist at the SAMRC, Cape Town Office. Aunty Louisa, as she was affectionately known by her colleagues, was a humble, gentle soul, with a deep sense of faith, who exuded kindness and compassion for each person she met. Because of the nature of her role and how she warmly and graciously welcomed staff and guests alike, she was considered the face of the organization.

While still coming to terms with the loss of Aunty Louisa, a week later we were devastated to hear that Gloria Beneke had also passed on the 22nd of July 2021. Gloria was a loving and dedicated employee and like Aunty Louisa, she too was the face of the SAMRC in her role as Receptionist in the Cape Town Office. She warmly welcomed visitors to the SAMRC and made them feel comfortable while waiting for their appointment. Gloria’s journey at the SAMRC started on the 1st of February 1998, joining as part of the cleaning team, before being promoted to Receptionist in April of 2009 and later in 2014 to Senior Officer with added responsibilities to supervise. She will be fondly remembered and deeply missed by all who had the pleasure of knowing her.

Our organisation has been hit again by sad news of losing one of its employees to COVID-19. Jeanette started her journey at the SAMRC from March 2002 as an administrator for the Experimental Biology Programme. She then moved to Corporate Affairs Division in February 2006 before joining Human Resources Directorate where she provided support with job evaluation, career progression, performance management and services rendered. In 2016, she was promoted to the Chief Officer position.

May their Souls Rest in Peace
World Environment Day

Observed each year on 05 June, World Environment Day is aimed at highlighting the importance of and encourage awareness and action for the protection of the environment – this year’s theme was: “Ecosystem Restoration”.

As part of the ‘OUR WORLD NEEDS YOU’ campaign, Corporate and Marketing Communications Division in partnership with the Environment and Health Research Unit (E&HRU), continues to be active citizens and literally getting their hands dirty. They have also called on the SAMRC staff, friends and families to live the value of “Citizenship” by participating in various clean-up initiatives in a pursuit of healthy ecosystems.

We would like to acknowledge the efforts of a true SAMRC ambassador, Ms Bianca Wenecke a Senior Scientist at the E&HRU, who selflessly committed to being part of this campaign and networked with various environmental activists in Gauteng and organizing a partnership for the Hennops River Clean-up.

In Cape Town, we partnered with the City of Cape Town, Biodiversity Management Branch – Environmental Management Department, Spatial Planning and Environment Directorate, to organize a beach clean-up and education around the challenges of pollution in our oceans.

Videos available on the SAMRC’s website.

World Immunization Week

Annually, 24 to 30 April 2021 is World Immunization Week – a period set aside to raise awareness about the importance of immunization and to promote the use of vaccines.

To mark this, Corporate and Marketing Communications Division partnered with Cochrane South Africa to undertake a public engagement campaign to increase ordinary South Africans’ understanding of immunization.

Through sharing some of the evidence-based work that we do around COVID-19 vaccination, the week-long campaign also sought to illustrate how vaccines connect us to the people, helping improve the health of everyone, everywhere throughout life.

The team took to the streets and passed the mic to ordinary South Africans, allowing them to share their personal stories and understanding of COVID-19 vaccination and possible drivers of vaccine hesitancy among communities. While there were mixed reactions, with the negative being mostly from lack of information, the SAMRC seized the opportunity to share valuable accurate information with them through face-to-face interactions and distribution of pamphlets.

Youth Month Engagements

The COVID-19 Pandemic has forced us all to step out of our comfort zones and to be more innovative in our efforts to keep South Africa informed and healthy.

During this year’s Youth Month, Corporate and Marketing Communications delivered the SAMRC Youth Engagement Webinars – a series of webinars aimed at creating a platform through which our scientists can engage with South African youth from all spheres of life.

A total of five webinars were hosted during Youth Month:

**WEBINAR 1:** The Impact of Lockdown on GBV and GBV within Institutions of Higher Learning

**WEBINAR 2:** Using wastewater to detect the presence of COVID-19

**WEBINAR 3:** Using TB technology in the fight against COVID-19

**WEBINAR 4:** Alcohol abuse and COVID-19: The two colliding epidemics

**WEBINAR 5:** Youth and Vaccination: Understanding COVID-19 Vaccines

Thank you to all our scientists who availed themselves for these webinars. All the webinars are available on the SAMRC’s website.
Observed annually on 24 March, World Tuberculosis (TB) Day is an important day in the calendar of South Africa and the rest of the world. It is a period for heightened public awareness about the devastating health and socio-economic consequences of TB and increased efforts to eliminate stigma surrounding the disease.

To mark this day, our colleagues from the TB Platform partnered with Corporate and Marketing Communications Division to deliver a week-long campaign and raise awareness about the disease and also highlight some of the important work undertaken by the Platform. Outside the Pretoria Office, colleagues set up a public outreach station allowing them to engage with community members mainly students and taxi commuters.

World TB Day

“I am actually impressed to find you here. On my way to work, I have heard about World TB Day.”

“Much more can be done to raise awareness, maybe come to the nursing college. Sometimes we see pamphlets at hospitals, and no one reads them, but if the SAMRC comes and talk to people, they listen.”

RCD Grant Holders Meeting

SAMRC’s Research Capacity Development (RCD) held its 2021 Grant Holders Annual Meeting (GHAM) on 2 March 2021 under the theme of “Leading Research and Innovation in a Time of COVID-19 Pandemic” – due to the COVID-19 pandemic, the year’s installment was held virtually.

GHAM is an opportunity for RCD’s Grant Holders to meet and share their research with the SAMRC President/CEO and the Vice-President. The meeting brought together the beneficiaries of the SAMRC Capacity Development Grant Programmes from selected Historically Disadvantaged Institutions. In her address, RCD Division Manager, Dr Thabi Matin said: “All our programmes remain strong in the transformation agenda. Through the Grants programmes we are demonstrating that with proper financial support, transformation is also strongly associated with high performance as a show by the accelerated numbers of publications that we are able to report from the Grants.”

For SAMRC RCD scholarships and grants | Read More

New Technology Innovation Cluster Program to strengthen South Africa’s medical devices and diagnostics innovation industry

On 26 March, the SAMRC in partnership with the Department of Science and Innovation (DSI) and Technology Innovation Agency (TIA), virtually launched the new Technology Innovation Cluster Program (TICP) for Medical Devices and Diagnostics (MeDDIC). MeDDIC aims to strengthen the medical devices and diagnostics innovation ecosystem through a cluster-based approach.

Due to our traceable national footprint; proven leadership role in supporting health innovation; strong links to national government and extensive networks in academic, non-profit and funding sectors; the ability to leverage additional funding as well as sound knowledge of the country’s health needs, we will be hosting the Program under our Global Health Innovation Accelerator (GHIA).

Explaining the role of the SAMRC as a key driver of health innovation in South Africa, SAMRC President and CEO, Prof Glenda Gray, said the SAMRC is involved in the full value chain at various levels. “We fund various stages of product development and testing through grants, conduct in-house product development and facilitate partnerships for product development and implementation” said Gray. She also added that this will also help the organisation utilize strategic partnerships to extend its innovation support role and increase links with industry, while delivering new solutions for the National Department of Health to address priority health issues.
Gold Medals are awarded to researchers who have made substantial and influential contributions that have impacted on health especially in the developing world – this year the award was awarded to four awardees and they were; Prof Graeme Meintjes, an adult Infectious Diseases Physician and Deputy Head of the Department of Medicine at the University of Cape Town (UCT), Prof Janusz Paweska who is Head of the Centre for Emerging, Zoonotic and Parasitic Diseases, National Institute for Communicable Diseases of the National Health Laboratory Service (NHLS), Prof Karen Sliwa who is Director at the Hatter Institute for Cardiovascular Research in Africa (HICRA) at the University of Cape Town and lastly Prof Michele Ramsay who is a Professor of Human Genetics at Wits University’s School of Pathology and occupies the position of Director at the Sydney Brenner Institute for Molecular Bioscience.

As an organisation that is committed to the contribution of the country’s medical research edifice by investing in the next generation of scientists, we also have the Silver Medal which is conferred to emerging and upcoming scientists and those committed to capacity development. This year, the medal went to Professors Claire Hoving, Mpiko Ntsekhe and Dr Stephanus Malherbe.

At its 7th Annual Scientific Merit Awards, the SAMRC recognised, honoured and celebrated scientists whose work has made an indelible impact in advancing the lives of South Africans.

Held on 4 March, the award ceremony took place in a form a hybrid event which included a small gathering of attendees at the organisation’s Head Office in Cape Town and an online audience.

This year’s awards took place at a time when science has been in the forefront against the COVID-19 pandemic – once again proving the importance of science and public health research in tackling infectious disease threats, both current and emerging. The Awards are an established set of medals with categories including: Silver; Gold and Platinum and a special Presidential Award.

For this year, the Presidential Award which is awarded to scientists who have made exceptional lifelong contributions to medical research and public health, was conferred to our previous Board Chairperson, Professor Mike Sathekge and former Cochrane SA Unit Director Professor James (Jimmy) Volmink. The internationally acclaimed researcher, Prof Sathekge is Head of Nuclear Medicine Department at the University of Pretoria and Steve Biko Academic Hospital. He also holds the position of CEO/Head of the Main Nuclear Medicine Research Infrastructure (NuMeRI). Prof Volmink on the other hand, serves as Dean of the Faculty of Medicine & Health Sciences and Professor in the Department of Global Health at Stellenbosch University. He boasts more than three decades of expertise in areas of Clinical epidemiology and Evidence-based medicine.

Past recipients of this award include illustrious science leaders who have made global impact such as Professors Zena Stein, Carl Lombard, and former SAMRC President Malegapuru William Makgoba. Past recipients of this award include illustrious science leaders who have made global impact such as Professors Zena Stein, Carl Lombard, and former SAMRC President Malegapuru William Makgoba. The internationally acclaimed researcher, Prof Sathekge is Head of Nuclear Medicine Department at the University of Pretoria and Steve Biko Academic Hospital. He also holds the position of CEO/Head of the Main Nuclear Medicine Research Infrastructure (NuMeRI). Prof Volmink on the other hand, serves as Dean of the Faculty of Medicine & Health Sciences and Professor in the Department of Global Health at Stellenbosch University. He boasts more than three decades of expertise in areas of Clinical epidemiology and Evidence-based medicine.

This category is for scientists who have achieved a lifetime of exemplary and outstanding endeavours in the field of health – past recipients include the late Professor Bongani Mayosi, Professors Valerie Mizrahi, Salim Abdool Karim and Dan Stein to mention a few.

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“...The SAMRC is honoured to celebrate these exceptional South Africans who always go to great lengths to produce world-class science aimed at the betterment of the lives of the country’s citizens ...

– Prof Glenda Gray.