



SOUTH AFRICAN IMMUNOLOGY SOCIETY

# NEWSLETTER

29 July 2022

Dear SAIS Members,

Welcome to the July newsletter. In about a month, we will be at the 9<sup>th</sup> SAIS conference. **Abstract submissions have been extended to 7<sup>th</sup> August 2022.** Please register and submit your abstract using this link: <https://www.sais-bookings.co.za/>. Don't miss out on this exciting conference! For daily updates on the upcoming conference and other SAIS events, follow us on all social media platforms - Twitter, Facebook, and LinkedIn. Feel free to send us your new publications for inclusion in our Community Corner.

## FUNDING CALLS, CONFERENCES, WEBINARS & ANNOUNCEMENTS

South African Immunology Society presents *An African Based Immunology Seminar Series*  
For more information, please visit: <https://www.saimmunology.org.za/webinars.html>

### DR LORNA GCANGA



Dr Gcanga is a postdoctoral research fellow at the Division of Immunology, University of Cape Town and ICGEB. Her current research is focused on targeting noncoding RNAs that are subverted by *Mycobacterium tuberculosis* to increase its persistence and survival within macrophages, with the aim of developing host-directed drug therapy for tuberculosis. This includes the identification of host non-coding RNAs as host-directed drug therapy for TB and the role of epigenetics in host immunity to TB.

DATE: 31 AUGUST 2022

TIME: 13:00

7th SA

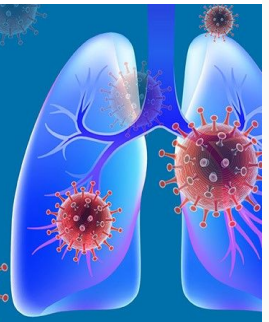
# TB

Conference

13 - 16 September 2022  
Durban ICC International  
Convention Centre



## Working together to get TB control back on track



For more information, please visit:

<https://foundation.eventsair.com/7tb-conference-2022/delegate-registration/Site/Register>



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SOUTH AFRICAN IMMUNOLOGY SOCIETY



The South African  
Immunology Society

## 9<sup>th</sup> CONFERENCE IMMUNOLOGY REDISCOVERED: Breakthroughs in Immunology

2 - 4 October 2022 • Misty Hills Hotel  
Conference Centre and Spa



## ABSTRACT SUBMISSIONS EXTENDED TO 7<sup>th</sup> AUGUST



The South African Immunology Society invites you to attend our 9<sup>th</sup> conference "Immunology Rediscovered: Breakthroughs in Immunology" from 2-4 October 2022. After two years of meeting virtually, this in - person event will showcase all the best immunology work going on locally and internationally, with a wide selection of world renowned speakers.

Topics will include vaccinology, infectious diseases, innate and adaptive immunity, tumour immunology, allergy, transplantation, and inborn errors of immunity, to name a few. The event will be held at the **Misty Hills Hotel, Conference Centre and Spa** nestled in the foothills of the Swartkop mountains in the beautiful Kromdraai Valley in Muldersdrift, Gauteng. Kromdraai falls within the Cradle of Humankind World Heritage Site; the birthplace of humankind. This is the perfect place to rediscover our human connections and passion for Immunology.

The conference will consist of both oral and poster presentations, and will include a cocktail networking function, as well as a gala dinner at the celebrated Carnivore restaurant. Abstract submission will open soon for consideration for short talks and posters. We cannot wait to gather again as a society and boost Immunology research in South Africa together. **Join us there!**

**Early Bird Registration Closes 10<sup>th</sup> August**

+27 21 486 9111 • [conference1@onscreenav.co.za](mailto:conference1@onscreenav.co.za) • [www.sais-bookings.co.za](http://www.sais-bookings.co.za)







**Alumni & Dean,  
Prof Shabir Madhi**

**FACULTY OF HEALTH SCIENCES  
ALUMNI  
SYMPOSIUM  
2022**

**8 SEPTEMBER  
9AM - 4PM**

**PUBLIC HEALTH AUDITORIUM**  
51 2193, 60 York Rd, Parktown, Johannesburg

**AREAS TO  
PRESENT ON**

-  **PASSIONS**
-  **CAREER AND RESEARCH**
-  **WHATEVER BLOWS YOUR MIND**

**BE A PRESENTER!**

**SIGN TODAY**

Email your short description of your proposed talk to [michelleg@nicd.ac.za](mailto:michelleg@nicd.ac.za) by 26 August 2022

For more information and registration, please visit:

<https://payg.rocketseed.net/public/messages/view-online/8uYVHjtnnERG0L9H/hlBaUp2ONV5xng5i/1ityU6HV402Y4Bja>



20<sup>TH</sup> BIENNIAL MEETING OF  
**THE EUROPEAN SOCIETY  
FOR IMMUNODEFICIENCIES**

**GOTHENBURG, SWEDEN | 12-15 OCTOBER 2022**

International Nursing Group



for Immunodeficiencies



INTERNATIONAL  
PATIENT ORGANISATION  
FOR IMMUNODEFICIENCIES

For more information, please visit: <https://esidmeeting.org/>



**EARLY BIRD REGISTRATION  
EXTENDED TO AUGUST 1!**

**ISID** | INTERNATIONAL  
**CONGRESS**  
ON INFECTIOUS DISEASES

**CALL FOR  
ABSTRACTS**

**Deadline:  
August 15th**

**NOV 17-20, 2022 | KUALA LUMPUR, MALAYSIA | IN-PERSON OR VIRTUAL!**

For more information, please visit: <https://isidcongress.org/>



## PUBLICATIONS & INTERESTING READS

### Advancing the prevention and treatment of HIV in children: priorities for research and development

[https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018\(22\)00101-1/fulltext?dgcid=raven\\_jbs\\_aip\\_email](https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018(22)00101-1/fulltext?dgcid=raven_jbs_aip_email)

### Blood-based biomarkers as a promising tool for early detection of incipient TB in people living with HIV

<https://medicalxpress.com/news/2022-07-blood-based-biomarkers-tool-early-incipient.html>

### Current vaccine strategies against SARS-CoV-2: Promises and challenges

[https://www.jacionline.org/article/S0091-6749\(22\)00704-7/fulltext](https://www.jacionline.org/article/S0091-6749(22)00704-7/fulltext)

### Dolutegravir twice-daily dosing in children with HIV-associated TB: a pharmacokinetic and safety study within the open-label, multicentre, randomised, non-inferiority ODYSSEY trial

[https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018\(22\)00160-6/fulltext](https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018(22)00160-6/fulltext)

### Influenza A(H3N2) Predominant Strain During 2021 to 2022 Season

[https://www.practiceupdate.com/c/139506/2/20/?elsca1=emc\\_enews\\_daily-digest&elsca2=email&elsca3=practiceupdate\\_rm&elsca4=respiratorymedicine&elsca5=newsletter&rid=NDY1Mzc5NzcwNTYyS0&lid=22920205](https://www.practiceupdate.com/c/139506/2/20/?elsca1=emc_enews_daily-digest&elsca2=email&elsca3=practiceupdate_rm&elsca4=respiratorymedicine&elsca5=newsletter&rid=NDY1Mzc5NzcwNTYyS0&lid=22920205)

### Non-volatile organic compounds in exhaled breath particles correspond to active tuberculosis

<https://www.nature.com/articles/s41598-022-12018-6>

### SARS-CoV-2 vaccination in the immunocompromised host

[https://www.jacionline.org/article/S0091-6749\(22\)00627-3/fulltext](https://www.jacionline.org/article/S0091-6749(22)00627-3/fulltext)

### The Role of Allogeneic Transplant for Adult Ph+ ALL in CR1 with Complete Molecular Remission: A Retrospective Analysis

<https://ashpublications.org/blood/article-abstract/doi/10.1182/blood.2022016194/486005/The-Role-of-Allogeneic-T-transplant-for-Adult-Ph-ALL?redirectedFrom=fulltext>

## DISEASE OF THE MONTH: HEPATITIS

### Africa's struggle with hepatitis B

<https://www.nature.com/articles/d41586-022-00819-8>

### Common misconceptions about viral hepatitis - Dr Nishi Prabdiyal-Sing

<https://www.youtube.com/watch?v=rJMPW1m4-YQ>

### Hepatitis A and Hepatitis B

<https://historyofvaccines.org/diseases/hepatitis-and-hepatitis-b>

### National Guidelines for the Management of Viral Hepatitis

[https://sahivsoc.org/Files/SA%20NDOH\\_Viral%20Hepatitis%20guideilnes%20final\\_.pdf](https://sahivsoc.org/Files/SA%20NDOH_Viral%20Hepatitis%20guideilnes%20final_.pdf)

### What is World Hepatitis Day?

<https://www.worldhepatitisday.org/>



## MONKEYPOX: A GLOBAL HEALTH EMERGENCY



On 23 July 2022, the World Health Organization declared the ongoing Monkeypox outbreak a Public Health Emergency of International Concern. We hope the below resources help bring you up to speed on this rapidly evolving situation.

### Monkeypox: A Contemporary Review for Healthcare Professionals

<https://academic.oup.com/ofid/article/9/7/ofac310/6615388?login=false>

### Monkeypox declared a global emergency: will it help contain the outbreak?

<https://www.nature.com/articles/d41586-022-02054-7>

### The changing epidemiology of human monkeypox—A potential threat? A systematic review

<https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0010141#sec018>

### The immunology of smallpox vaccines

<https://europepmc.org/article/pmc/pmc2826713>

## COMMUNITY CORNER

Showcasing the bright minds of SAIS

### Systemic levels of the soluble co-inhibitory immune checkpoints, CTLA-4, LAG-3, PD-1/PD-L1 and TIM-3 are markedly increased in basal cell carcinoma

Nonkululeko Z. Malinga<sup>a</sup>, Shalette C. Siwele<sup>a</sup>, Helen C. Steel<sup>b</sup>, **Luyanda L.I. Kwofie<sup>bc</sup>**,  
**Pieter W.A. Meyer<sup>bd</sup>**, **Teresa Smit<sup>bd</sup>**, **Ronald Anderson<sup>b</sup>**, **Bernardo L. Rapoport<sup>bd</sup>**, Mahlatse C.M. Kgekolo<sup>a</sup>

<sup>a</sup> Department of Dermatology, School of Medicine, Faculty of Health Sciences, University of Pretoria and Steve Biko Academic Hospital, Pretoria, South Africa.

<sup>b</sup> Department of Immunology, School of Medicine, Faculty of Health Sciences, University of Pretoria, South Africa. <sup>c</sup> Tshwane Academic Division of the National Health Laboratory Service, Pretoria, South Africa. <sup>d</sup> The Medical Oncology Center of Rosebank, Saxonwold, Johannesburg, South Africa.



Although co-inhibitory immune checkpoint proteins are primarily involved in promoting cell-cell interactions that suppress adaptive immunity, particularly tumor immunity, little is known about them in therapeutics or as predictive biomarkers. Soluble cell-free variants of these molecules are detectable in circulation of cancer patients. Nevertheless, virtually no data exist about the systemic levels of these soluble co-inhibitory immune molecules in patients with subtypes of basal cell carcinoma (BCC).

In this study, the researchers measured the systemic concentrations of five prominent co-inhibitory immune checkpoints (CTLA-4, LAG-3, PD-1/PD-L1 and TIM-3) as well as those of C-reactive protein (CRP) and vitamin D, in a cohort of patients (n = 40) with BCC. They compared these cohort to a group of control participants, using a combination of multiplex bead array, laser nephelometry and ELISA technologies.

Results: All five immune checkpoint molecules were significantly elevated ( $P = 0.0184$  -  $P = < 0.00001$ ), with those of CTLA-4 and PD-1 being highly correlated ( $r = 0.87$ ;  $P < 0.00001$ ), however, the median systemic concentrations of CRP and vitamin D were comparable between the two groups. This novel finding also underscores the therapeutic promise of immune checkpoint molecules and their potential use as prognostic/predictive biomarkers in BCC.

## SUPERSCIENTIST OF THE MONTH

### Dr Nyaradzo Chigorimbo-Tsikiwa: Medical Virologist



Watch the full interview on the SAIS website!

This month, we were inspired by Dr Nyaradzo Chigorimbo-Tsikiwa, a passionate virologist and science communicator. Dr Chigorimbo-Tsikiwa is a Senior Researcher at the department of Medical Virology, University of Cape Town. Take a look at her wonderful insights below:

#### Can you share your thoughts on why you love immunology?

I love its complexity! Nothing is as it seems - there's always caveats and so many aspects are interdependent on each other. I love the depth and breadth of immunology, and how that gives space for everyone to find something they enjoy.

#### What has the experience of public engagement and explaining science to the masses been like for you?

I've been pleasantly surprised by how much fun it is! I've most enjoyed talking to real-life people who have questions and need explanations that they can understand. My favourite is speaking to young people and people who don't have a scientific background - I love seeing them find science fascinating once they understand it. People genuinely want to know what's happening around them.

#### What skills do you think are unique to African scientists?

So many...but particularly our technical resourcefulness - we are still able to do meaningful, impactful science despite many constraints that developed countries don't face. Also, our worldview allows us to approach our research differently. For many of the infectious diseases that disproportionately affect us, we're not just doing the research because the science is interesting, but because these diseases have the faces of people we know and love. What fuels our passion for science is very different to those who approach science from a textbook point of view.

# VACCINATION

*Our best shot*

Dr Edward Jenner, the “Father of Vaccination”, was a British physician and scientist who began the era of vaccination, including creating the world’s first vaccine. Vaccination is one of the most life-saving public health interventions, allowing children and adults to protect themselves, their loved ones, and their communities from various diseases. We hope the resources provided in this newsletter will empower you and those around you to take your health into your own hands. Don’t wait. Vaccinate.

## 3 FACTS ABOUT VAX

1. **With the help of vaccines, the World Health Organization hopes to eliminate viral hepatitis globally by 2030**
2. **Vaccines used during the smallpox eradication programme also provided protection against monkeypox. One new vaccine has been approved for monkeypox prevention**
3. **To date, researchers have developed several candidate HIV vaccines, but none has performed well enough in clinical trials to be approved**



<https://historyofvaccines.org/>

<https://www.nature.com/articles/d41586-022-00817-w>

[https://www.who.int/news-room/fact-sheets/detail/monkeypox?gclid=Cj0KCQjw\\_viWBhD8ARIsAH1mCd4quP6tdhmxFBz76q3pSoh3v1b0GhJ1A8ZeVj5Izp4dXelZjipHFvAaArUIEALw\\_wcB](https://www.who.int/news-room/fact-sheets/detail/monkeypox?gclid=Cj0KCQjw_viWBhD8ARIsAH1mCd4quP6tdhmxFBz76q3pSoh3v1b0GhJ1A8ZeVj5Izp4dXelZjipHFvAaArUIEALw_wcB)

## Viral Hepatitis

The 28<sup>th</sup> of July marks World Hepatitis Day, occurring every year to promote global action on viral hepatitis.

Viral hepatitis is inflammation of the liver as a result of infectious causes. The most recent estimates of the Global Burden of Disease Study show viral hepatitis is responsible for ~1.5 million deaths annually, similar to the annual deaths from AIDS (1.3 million), malaria (0.9 million) and TB (1.3 million). Viral hepatitis is the seventh leading cause of death worldwide. There are five main hepatitis viruses – A, B, C, D and E. Hepatitis B (HBV) is the viral illness responsible for 80% of primary liver cancers on a global scale. According to the WHO, 2% of Africans living with chronic HBV infection are diagnosed and only 0.1% receive treatment. Whereas, in Europe and the Americas, these figures are 18–19% and 2–3%. The African continent is also behind the rest of the world regarding HBV prevention through vaccination. Only ~11% of newborns receive birth-dose vaccines preventing viral mother-to-child transmission. Underfunding is the main reason for neglected HBV treatment in Africa. Additionally, the disease has a low profile in Africa compared with other infections such as those causing AIDS, malaria, TB, and now COVID-19. Additionally, HBV variants circulating in Africa are rarely found outside the continent making diagnostic tests and tracking disease progression less accurate, since these were developed outside Africa, targeting other variants. Even South Africa, with one of Africa’s best-resourced healthcare systems, has one of the largest HBV burdens in the world.

Liver disease in South Africa is mostly underestimated as viral hepatitis. Compounding this is the lack of screening, access to care and treatment, and inadequate disease surveillance. HAV and HBV are highly endemic in South Africa, with vaccines to only these two hepatitis viruses being currently available, although immunity for hepatitis B allows immunity for hepatitis D. There is inadequate data on hepatitis C, D and E. Irregular cases of hepatitis E have been reported from travel outside the country, and Hepatitis C is concentrated amongst key populations. Recent studies show that the prevalence of hepatitis C is 93% among drug-injecting people. If left untreated, around one third of those chronically infected with viral hepatitis will die from serious liver disease, including cirrhosis, liver failure and hepatocellular carcinoma.



**World Hepatitis Day**  
**28 July**

BROUGHT TO YOU BY





## JOBS & OPPORTUNITIES

### Clinical Associate - University of Cape Town Lung Institute, Mowbray, Western Cape

The Allergy and Immunology Unit (AIU), based at the University of Cape Town Lung Institute, require applications for a Clinical Associate on a Fixed Term Contract. For more information and application, visit <https://lunginstitute.co.za/vacancies/>. HPCSA Registration required. **Closing date: 31 July 2022**

### Associate Editor, Science Translational Medicine - Washington D.C., USA

The AAAS and Science Translational Medicine are seeking a talented scientist, physician scientist or clinician interested in biomedical/translational research to join the Science Translational Medicine editorial team. This is a full-time position designed for a PhD scientist, MD/PhD physician scientist or MD clinician with broad research experience in biomedicine. Two to five years post PhD or MD experience, including postdoctoral research experience in one or more translational fields and multiple publications required. For more information, visit <https://jobs.sciencecareers.org/jobs/>. **Closing date: 05 August 2022**

### Junior Research Fellow Position (3 years) - Department of Pathology, Faculty of Health Sciences, University of Cape Town

Applicants are invited for the Junior Research Fellow position under the mentorship of Assoc. Prof. Wendy Burgers and Prof. Ntobeko Ntusi, based in the Division of Medical Virology, Department of Pathology; Division of Cardiology, Department of Medicine; and Institute of Infectious Disease and Molecular Medicine, Faculty of Health Sciences. This position is funded by the UCT IDM and the Department of Medicine. We are seeking an emerging academic who has undertaken postdoctoral training but has not yet had much opportunity to work independently or lead a research project. Requirements include: A PhD in Immunology or a related field; 2 to 5 years postdoctoral experience working in a research laboratory; Demonstrable evidence of academic writing ability, including a track record of research publications in immunology or a related field; Experience with aspects of supervision of postgraduate students; Expertise in immunological techniques including multiparameter flow cytometry in a BSL2 laboratory. To apply, please email the following documents in a single PDF file to Ms Tracy Moore at [recruitment05@uct.ac.za](mailto:recruitment05@uct.ac.za): UCT Application Form (download at <http://forms.uct.ac.za/hr201.doc>); Motivation letter that speaks to the requirement of the positions; Curriculum Vitae (CV). Reference number: E220295. **Closing date: 21 August 2022.**

Full Advert and Job Description at: <http://www.staff.uct.ac.za/staff/vacancies/general>

### Postdoctoral Researcher - University of Texas, MD Anderson Cancer Center, Houston, Texas, USA

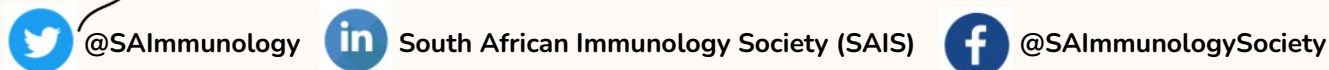
Postdoctoral positions are available in the Lin lab in the Department of Systems Biology at The University of Texas MD Anderson Cancer Center. This laboratory focuses on utilizing systems approaches to identify key therapeutic vulnerabilities associated with deficiencies in DNA damage response, and develop novel personalized cancer therapies based on these deficiencies in cancer. Interested applicants should send a cover letter describing your previous experience and future research plans along with a detailed CV and at least three references to: [sylin@mdanderson.org](mailto:sylin@mdanderson.org). **Closing date: 13 September 2022**

## CONTACT US!

If you have any suggestions or feedback to improve this newsletter, feel free to contact us! Please send us your recent publications so we can showcase them in our Community Corner. If you are hiring/recruiting, we would be more than happy to advertise for you in the newsletter and on our social media platforms. You can email the editors at [newsletter@saimmunology.org.za](mailto:newsletter@saimmunology.org.za) by the 20<sup>th</sup> of each month to be featured in our next newsletter.

## IMPORTANT LINKS

To renew your SAIS Membership please visit: <https://saimmunology.org.za/membership.htm>



With regards,  
The SAIS Newsletter Editorial Team

Dr. Clement Adu-Gyamfi  
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Co-Editor

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