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SOUTH AFRICAN IMMUNOLOGY SOCIETY



SAIS NEWSLETTER – AUGUST 14TH, 2020

Dear SAIS members

Below, please find this week's newsletter. The next newsletter will be sent out on Friday, 28 August 2020.

FUNDING CALLS, CONFERENCES, WEBINARS and ANNOUNCEMENTS

SAIS Immunopaedia COVID-19 Webinar - 18 August

For updates on webinars, please visit: <https://www.saimmunology.org.za/webinars.html>

COVID-19 Webinar Series 18 August 2020



Session 1 (15:00–15:30)
Prof Shabir Madhi

COVID-19 vaccines being
evaluated in SA.



Session 2 (15:30–16:00)
Prof Ed Rybicki

Alternative vaccine approaches
for SARS-CoV-2.

[Please click on this link to register \(pdf\).](#)

[Or follow the link in the email.](#)

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Challenges Facing Humanity at The Age of COVID-19 and Beyond, 5th September 2020 - at 1 PM (13:00 h) Cairo Time.

This webinar will feature talks from: Prof. Dr. Mitsunobu R Kano (speaker/moderator), with lecture entitled "Scientific thinking and the real world – thoughts from medicine and the SDGs"; Prof. Dr. Quarraisha Abdool Karim, with lecture entitled "The dual epidemics of HIV and Covid-19"; Prof. Ramy K. Aziz with lecture entitled "Preparing for the next pandemic—the bitter lessons learned from COVID19"; and Prof. Dr Maria Augusta Arruda, with lecture entitled "Science: for the many, not the few".

The webinar will be convened by Prof. Dr. Amal Amin, Associate Professor at National Research Center, Egypt, and founder and chair of WISWB. The deadline for registration is 20 August 2020. To register, please visit: <https://docs.google.com/forms/d/e/1FAIpQLSeQd8Qka3R1n1mqrGxJO2Je9YBXmvUzzLvWZ5g5onyLCQX77g/viewform>

Cell Symposium: Translational Immunometabolism, 27-29 June 2021, University Hospital Basel, Basel, Switzerland

During this Cell Symposium, you will hear about the latest advances in immunometabolism and interact with leading basic researchers, physician-scientists and industry leaders in the field. The talks will cover how intracellular metabolism within immune cells and extracellular effects on key target tissues are integrated to affect whole-body physiology and responses to disease. We will also focus on emerging technologies to study such systems and to identify novel molecular targets to treat disease, as well as highlighting new research translating such findings to the clinic. Abstract submission deadline: 12 February 2021.

For more information, please visit: <http://www.cell-symposia.com/immunometabolism-2021/>

WEBINAR: COVID-19 in immunodeficient patients, 17 August 2020, 17:00 CEST.

Kathleen Sullivan will share her insights on: Immune compromise and the risk for severe COVID-19; Primary immune deficiencies and COVID-19, what we know and what we don't know; Vaccine options for people living with primary immunodeficiencies. For more information and to register, please visit:

<https://www.bigmarker.com/iuis/COVID-19-in-immunodeficient-patients>

BIO Africa Digital 2020, 24-26 August 2020.

The conference's plenary session will feature keynote speakers such as Prof. Salim Abdool Karim, Dr Lawrence Banks, and Mr Butana Mboniswa, and will unpack the similarities and lessons of Africa's experience with Ebola and the applicability in the fight against COVID-19. The health biotech session will delve into some hard-hitting questions relating to Antibiotic Resistance and Oncology, Therapeutics, Diagnostics, Vaccines, repurposing drugs, antigen/antibody tests, manufacturing for Africa's health, as well as Natural Medicines and epidemic preparedness. Registration for the event is free. For more information and to register, please visit: <https://www.bioafricaconvention.com/registration>

PUBLICATIONS and INTERESTING READS:

Evaluation of the immunogenicity of prime-boost vaccination with the replication-deficient viral vectored COVID-19 vaccine candidate ChAdOx1 nCoV-19

https://www.nature.com/articles/s41541-020-00221-3?utm_source=npjvaccines_etoc&utm_medium=email&utm_campaign=toc_41541_5_1&utm_content=20200730&WT.ec_id=NPJVACCINES-202007&sap-outbound-id=D79D924D71863B645241603309B84CD72E48FDB0

Distinct early serological signatures track with SARS-CoV-2 survival

[https://www.cell.com/immunity/fulltext/S1074-7613\(20\)30327-7?dgcid=raven_jbs_aip_email](https://www.cell.com/immunity/fulltext/S1074-7613(20)30327-7?dgcid=raven_jbs_aip_email)

Type I IFN is siloed in endosomes

<https://www.pnas.org/content/117/30/17510>

Early IL-1 receptor blockade in severe inflammatory respiratory failure complicating COVID-19

<https://www.pnas.org/content/early/2020/07/21/2009017117>

Immune Variation Explains Different COVID-19 Outcomes

<https://www.labroots.com/trending/immunology/18287/immune-variation-explains-covid-19-outcomes>

Link to research article: <https://www.nature.com/articles/s41586-020-2588-y>

China's coronavirus vaccines are leaping ahead – but face challenges as virus wanes

Companies could struggle to enrol enough trial participants, or gather enough data to convince regulatory agencies that the shots work.

<https://www.nature.com/articles/d41586-020-02244-1>

How Are DNA Testing Companies Helping the Fight Against COVID?

<https://www.labroots.com/trending/genetics-and-genomics/18274/dna-testing-companies-helping-fight-covid>

Regulator of Mysterious Gut Antibodies Identified

A B-cell receptor critical for the production of a subset of intestinal antibodies has been pinpointed, but the function of those antibodies remains unclear.

<https://www.the-scientist.com/news-opinion/regulator-of-mysterious-gut-antibodies-identified-67783>

Immunoserologic detection and diagnostic relevance of cross-reactive auto-antibodies in COVID-19 patients

<https://academic.oup.com/jid/article/doi/10.1093/infdis/jiaa485/5879761?searchresult=1>

Genetic mutations predispose individuals to severe COVID-19

Toll-like receptor 7 plays an essential role in the defense against SARS-CoV-2

https://www.eurekalert.org/pub_releases/2020-07/rumc-gmp072420.php

Groups protest exclusion of HIV-infected people from coronavirus vaccine trials

<https://www.sciencemag.org/news/2020/08/groups-protest-exclusion-hiv-infected-people-coronavirus-vaccine-trials>

Acute SARS-CoV-2 infection impairs dendritic cell and T cell responses

[https://www.cell.com/immunity/fulltext/S1074-7613\(20\)30333-2](https://www.cell.com/immunity/fulltext/S1074-7613(20)30333-2)

Flexible Usage and Interconnectivity of Diverse Cell Death Pathways Protect against Intracellular Infection

[https://www.cell.com/immunity/fulltext/S1074-7613\(20\)30284-3](https://www.cell.com/immunity/fulltext/S1074-7613(20)30284-3)

Selective and cross-reactive SARS-CoV-2 T cell epitopes in unexposed humans

https://science.sciencemag.org/content/early/2020/08/04/science.abd3871?utm_campaign=fr_sci_2020-08-04&et rid=643223756&et_cid=3434532

Engineering human ACE2 to optimize binding to the spike protein of SARS coronavirus 2

https://science.sciencemag.org/content/early/2020/08/03/science.abc0870?utm_campaign=fr_sci_2020-08-04&et rid=643223756&et_cid=3434532

Does the Common Cold Protect You from COVID-19?

There are emerging signs that some people might have heightened protection against SARS-CoV-2, perhaps thanks to recent infection by other coronaviruses.

<https://www.the-scientist.com/news-opinion/does-the-common-cold-protect-you-from-covid-19--67792>

Designer antibodies could battle COVID-19 before vaccines arrive

https://www.sciencemag.org/news/2020/08/designer-antibodies-could-battle-covid-19-vaccines-arrive?utm_campaign=news_daily_2020-08-04&et rid=643223756&et_cid=3434962

How the pandemic might play out in 2021 and beyond

This coronavirus is here for the long haul — here's what scientists predict for the next months and years.

<https://www.nature.com/articles/d41586-020-02278-5>

COVID-19 and Hypercoagulability: Potential Impact on Management with Oral Contraceptives, Estrogen Therapy and Pregnancy

<https://academic.oup.com/endo/advance-article/doi/10.1210/endo/bqaa121/5874354>

Pathogen-induced tissue-resident memory TH17 (TRM17) cells amplify autoimmune kidney disease

<https://immunology.sciencemag.org/content/5/50/eaba4163>

The (inner) world according to GARP: Genetic susceptibility and regulatory T cells

<https://immunology.sciencemag.org/content/5/50/eabe0976>

Antibody-secreting cell destiny emerges during the initial stages of B-cell activation

<https://www.nature.com/articles/s41467-020-17798-x>

Acute SARS-CoV-2 infection impairs dendritic cell and T cell responses

[https://www.cell.com/immunity/fulltext/S1074-7613\(20\)30333-2](https://www.cell.com/immunity/fulltext/S1074-7613(20)30333-2)

Systems biological assessment of immunity to mild versus severe COVID-19 infection in humans

https://science.sciencemag.org/content/early/2020/08/10/science.abc6261?utm_campaign=fr_sci_2020-08-11&et rid=643223756&et_cid=3442934

ISOLATION, IDENTIFICATION AND CHARACTERIZATION OF THE HUMAN AIRWAY LIGAND FOR THE EOSINOPHIL AND MAST CELL IMMUNOINHIBITORY RECEPTOR SIGLEC-8

[https://www.jacionline.org/article/S0091-6749\(20\)31107-6/abstract](https://www.jacionline.org/article/S0091-6749(20)31107-6/abstract)

Early epitope-specific IgE antibodies are predictive of childhood peanut allergy

[https://www.jacionline.org/article/S0091-6749\(20\)31111-8/abstract](https://www.jacionline.org/article/S0091-6749(20)31111-8/abstract)

Potential effects of disruption to HIV programmes in sub-Saharan Africa caused by COVID-19: results from multiple mathematical models

[https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018\(20\)30211-3/fulltext](https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018(20)30211-3/fulltext)

South Africa to take part in two more Covid-19 vaccine trials, with up to 12,000 volunteers

<https://www.dailymaverick.co.za/article/2020-08-12-south-africa-to-take-part-in-two-more-covid-19-vaccine-trials-with-up-to-12000-volunteers/>

The pandemic appears to have spared Africa so far. Scientists are struggling to explain why

https://www.sciencemag.org/news/2020/08/pandemic-appears-have-spared-africa-so-far-scientists-are-struggling-explain-why?utm_campaign=news_daily_2020-08-11&et rid=643223756&et_cid=3443358

Scientists Discover Key Gene Behind Antibiotic Resistance

<https://www.labroots.com/trending/drug-discovery-and-development/18394/scientists-discover-key-gene-antibiotic-resistance>

Link to research article: <https://www.nature.com/articles/s41467-020-17735-y>

Is immunological memory a burden in times of COVID-19?

[https://www.cell.com/trends/immunology/fulltext/S1471-4906\(20\)30181-2?dgcid=raven_jbs_aip_email](https://www.cell.com/trends/immunology/fulltext/S1471-4906(20)30181-2?dgcid=raven_jbs_aip_email)

Development and validation of a model for individualized prediction of hospitalization risk in 4,536 patients with COVID-19

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0237419>

Predict Hospitalization Risk for COVID-19 Positive: <https://riskcalc.org/COVID19Hospitalization/>

JOBS AND POSITIONS:



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Postdoctoral Fellowship in Computational Immunology South African Tuberculosis Vaccine Initiative, University of Cape Town

The South African Tuberculosis Vaccine Initiative performs cutting edge clinical and immunological research in TB pathogenesis, biomarker development and clinical vaccine development. We are inviting applications for a postdoctoral fellowship in computational immunology to conduct research on a large project aimed at understanding the pathogenesis of subclinical TB and identifying immune correlates of protection against TB. The project is part of an international effort to discover immune correlates of protection against TB in the context of two phase 2b clinical trials of TB vaccination that demonstrated protection. The fellow will be based in Cape Town, but the project may include activity-related travel to collaborating institutes. The successful candidate will be part of the SATVI Computational Immunology team and will contribute to design, development, and performance of computational and statistical analyses of host RNA-seq data within the context of complementary immunological outcomes. Responsibilities will include applying and developing approaches and computational models for identifying and validating candidate correlates that allow prediction of protection against TB. For more information on SATVI, visit www.satvi.uct.ac.za.

Key Requirements:

- Ph.D. degree within the last 5 years in bioinformatics, biostatistics or computational biology, or PhD in biological sciences with at least 3 years of relevant bioinformatics or computational biology experience.
- Working proficiency in UNIX/Linux and R and/or Python programming.
- Strong skills in the application of computational and statistical analytical techniques with a focus on high-dimensional and multivariate data analysis.
- Demonstrated solid scientific proficiency, creativity, critical thinking ability to collaborate effectively with others, and independent thought processes.
- Authorship of peer-reviewed publications related to bioinformatics, computational biology or immunology.
- Ability to handle multiple projects and priorities with exceptional organizational and time management skills.

Qualifications and/or previous experience in RNA-sequencing and data processing, biological sciences and especially immunology will be advantageous.

The candidate should not have held any prior permanent professional or academic positions and must be prepared to comply with the policies, procedures and practices for the postdoctoral sector at the University of Cape Town. The fellowship is initially tenable for three years, but renewal each year will be contingent on annual progress and performance reviews. The fellowship is valued between R350,000 and R450,000 per year and will depend on relevant experience and skills. The fellowship is compliant with the rules set by the SARS and is exempt from taxation and includes no benefits. No direct service will be required in return for the fellowship.

Potential applicants are encouraged to contact Dr Thomas Scriba, Deputy-Director, Immunology, or Dr Mbandi Kimbung, by e-mail thomas.scriba@uct.ac.za or (Stanley.kimbung@uct.ac.za), prior to application.

To apply, please email a letter of motivation, full CV and contact details of 3 referees, clearly indicating "Postdoctoral Fellowship" in the subject line, to Ms Alison September at a.september@uct.ac.za.

Closing date for applications: 15 September 2020.



Please don't forget to send me any info you may have on funding opportunities, meetings, workshops and/or conferences, so I can post it on the SAIS LinkedIn page. Additionally, if you are recruiting/hiring, I am more than happy to advertise it on LinkedIn and in the newsletter.

Thank you.

Kind regards

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