

SAIS NEWSLETTER - NOVEMBER 15th, 2019

Dear SAIS members,

Below, please find this week's newsletter.

FUNDING CALLS, CONFERENCES, WEBINARS and ANNOUNCEMENTS

BactiVac 3rd Annual Network Meeting - 24-27 March 2020 - Kilifi, Kenya

The BactiVac Network has secured a funding award from the Bill & Melinda Gates Foundation to support this meeting - for additional information, please visit <https://www.birmingham.ac.uk/research/immunology-immunotherapy/research/bactivac/news/BactiVac-awarded-additional-funding-3rd-annual-network-meeting.aspx>. Abstract submission deadline - 01 December 2019 (23:59 hrs GMT). For registration, please visit <https://www.birmingham.ac.uk/research/immunology-immunotherapy/research/bactivac/3rd-Annual-Network-Meeting.aspx>.

University of the Witwatersrand Health Sciences Research Awards

A call for the 2019 Faculty Research Prize is now OPEN! Closing date: 31 January 2020. Please visit <http://www.wits.ac.za/health/research/research-awards/> for more details.

PUBLICATIONS and INTERESTING READS:

Foxo in T Cells Regulates Thermogenic Program through Ccr4/Ccl22 Axis

[https://www.cell.com/iscience/fulltext/S2589-0042\(19\)30456-0](https://www.cell.com/iscience/fulltext/S2589-0042(19)30456-0).

Neutrophils restrain allergic airway inflammation by limiting ILC2 function and monocyte–dendritic cell antigen presentation

<https://immunology.sciencemag.org/content/4/41/eaax7006.full>.

In vivo delivery of synthetic DNA-encoded antibodies induces broad HIV-1-neutralizing activity

<https://www.jci.org/articles/view/132779>.

Quadrivalent Vesiculovax vaccine protects nonhuman primates from viral-induced hemorrhagic fever and death

<https://www.jci.org/articles/view/131958>.

Groundbreaking HIV vaccine design strategy shows promise in proof-of-principle tests

<https://www.scripps.edu/news-and-events/press-room/2019/20191031-schief-HIV.html>.

Single cell analysis reveals immune cell–adipocyte crosstalk regulating the transcription of thermogenic adipocytes

<https://elifesciences.org/articles/49501>.

Inhibition of ErbB kinase signalling promotes resolution of neutrophilic inflammation

<https://elifesciences.org/articles/50990>.

Mechanisms of virus dissemination in bone marrow of HIV-1–infected humanized BLT mice

<https://elifesciences.org/articles/46916>.

Ebola vaccine approved for use in Europe

Merck's Ervebo gets its first regulatory greenlight. A decision from the US Food and Drug Administration is expected in the next few months. <https://www.the-scientist.com/news-opinion/ebola-vaccine-approved-for-use-in-europe-66704>.

Not all T cell synapses are built the same way

[https://www.cell.com/trends/immunology/fulltext/S1471-4906\(19\)30197-8](https://www.cell.com/trends/immunology/fulltext/S1471-4906(19)30197-8).

Metalloproteases: On the watch in the hematopoietic niche

[https://www.cell.com/trends/immunology/fulltext/S1471-4906\(19\)30194-2](https://www.cell.com/trends/immunology/fulltext/S1471-4906(19)30194-2).

Immunology driven by large-scale single-cell sequencing

[https://www.cell.com/trends/immunology/fulltext/S1471-4906\(19\)30192-9](https://www.cell.com/trends/immunology/fulltext/S1471-4906(19)30192-9).

Vaccination with glycan-modified HIV NFL envelope trimer-liposomes elicits broadly neutralizing antibodies to multiple sites of vulnerability

[https://www.cell.com/immunity/fulltext/S1074-7613\(19\)30452-2](https://www.cell.com/immunity/fulltext/S1074-7613(19)30452-2).

Kupffer cells mediate systemic antifungal immunity

[https://www.cell.com/trends/immunology/fulltext/S1471-4906\(19\)30232-7](https://www.cell.com/trends/immunology/fulltext/S1471-4906(19)30232-7).



JOBS and POSITIONS



MSc Student

Based at Centre for Vaccines and Immunology, NICD
1 Modderfontein Rd, Sandringham

Background

The Centre for Vaccines and Immunology comprises the National and World Health Organisation Regional Reference Laboratories for acute flaccid paralysis as well as measles and rubella surveillance. Additionally, the centre conducts projects on viral hepatitis, Tuberculosis and other vaccine preventable diseases. Our research focus is immune tolerance and its application to infectious diseases such as Tuberculosis and HIV. A key project is the role of Indoleamine 2,3 dioxygenase as a TB biomarker.

Using enzymatic activity on peripheral blood, we have shown that IDO activity is elevated during active Tuberculosis¹. The use of sputum as a sample type due to infection control issues when patients are required to cough into specimen bottles. While peripheral blood is preferable, this sample type still requires trained health professionals for phlebotomy and is problematic in children. Dried blood spots are already in use for other diagnostic assays such as HIV and would be preferred but have not been evaluated for IDO measurement.

In this project, we aim to correlate IDO mRNA expression levels by real-time PCR with IDO activity levels measured by ELISA. We will further investigate whether IDO PCR can differentiate patients with active TB to patients without active TB.

A further aim is to investigate the use of dried blood spot cards for determination of IDO activity, in healthy individuals. Here, we will evaluate dried blood spots as a sample type for determination of IDO enzyme activity.

Qualifications and experience

BSc (honours) in immunology or related discipline. Preferred skills: real-time PCR, ELISA, cell culture.

Please email CV to Dr Heena Ranchod by **22 November 2019**
heenar@nicd.ac.za

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.

Kind regards

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