

SAIS NEWSLETTER - JANUARY 10th, 2020

Dear SAIS members

Welcome back and Happy New Year! Wishing everyone a happy, healthy and prosperous new year ahead.

Special thanks to Dr Dana Savulescu for the warm welcome in the last newsletter as well as the guidance as I take over the Society's newsletter and LinkedIn page this year. We wish Dr Savulescu all the best in her future endeavours.

This year members will receive the newsletter every two weeks. Please note that our first newsletter is a little longer than usual as it includes content posted over December 2019.

FUNDING CALLS, CONFERENCES, WEBINARS and ANNOUNCEMENTS

POCT Africa 2020. The 3rd Annual Point of Care Testing Africa Conference, will be held on 17 – 18 March 2020 in Cape Town at the Lagoon Beach Hotel.

The conference will be hosted by the South African Medical Research Council (SAMRC) / Cape Peninsula University of Technology (CPUT) / Cardiometabolic Health Research Unit (CHRU) and under the auspices of Africa Federation of Clinical Chemistry (AFCC), South African Association for Clinical Biochemistry (SAACB) and Point of Care Research Network (PCRN). For more information, please visit <https://www.poctafrica.org/>

Optimmunize: Improving the beneficial effects of vaccines will be held from 19 - 21 February 2020 at the Wellcome Genome Campus, UK.

This conference aims at improving understanding of interactions between vaccines and the immune system, with a focus on the non-specific and sex-differential effects of vaccines. Abstract deadline: 7 January 2020.

For more information, please visit: https://coursesandconferences.wellcomegenomecampus.org/our-events/optimmunize/?utm_source=mail_out&utm_medium=print_poster&utm_campaign=OptiVaccines20&utm_source=IUIS+Newsletter&utm_campaign=924d660946-

[IUIS_Newsletter_Q4_2017_COPY_01&utm_medium=email&utm_term=0_a910cd5922-924d660946-120410941](https://coursesandconferences.wellcomegenomecampus.org/our-events/optimmunize/?utm_source=mail_out&utm_medium=print_poster&utm_campaign=OptiVaccines20&utm_source=IUIS+Newsletter&utm_campaign=924d660946-IUIS_Newsletter_Q4_2017_COPY_01&utm_medium=email&utm_term=0_a910cd5922-924d660946-120410941)

Immunoengineering: Fundamental and Applied Approaches to Modulate the Immune System – Gordon Research Symposium – June 6-7, 2020 - Castelldefels, Spain

This meeting will focus on the emerging field of Immunoengineering, in which the principles of engineering and chemical biology are applied to the understanding of immune mechanisms and the development of new immune agents.

Applications for this meeting must be submitted by May 9, 2020; any applicants who wish to be considered for an oral presentation should submit their application by March 6, 2020. For more information please visit: <https://www.grc.org/immunochemistry-and-immunobiology-grs-conference/2020/>

23rd International AIDS Conference (AIDS 2020), 6-10 July 2020 in San Francisco and Oakland, USA.

Early registration closes in just one week on **Wednesday, 15 January 2020**. Scholarship applications close **15 January 2020**. For more information please visit:

https://www.aids2020.org/registration/?utm_source=IAS&utm_campaign=abc569dea5-early-registration-closes-1-week_COPY_01&utm_medium=email&utm_term=0_58c4aa5b50-abc569dea5-103905077

PUBLICATIONS and INTERESTING READS:

Treg cell-based therapies: challenges and perspectives

<https://www.nature.com/articles/s41577-019-0232-6>

Targeted Expansion of Tissue-Resident CD8+ T Cells to Boost Cellular Immunity in the Skin

[https://www.cell.com/cell-reports/fulltext/S2211-1247\(19\)31459-7](https://www.cell.com/cell-reports/fulltext/S2211-1247(19)31459-7)

The case for mandatory vaccination

https://www.nature.com/articles/d41586-019-03642-w?utm_source=facebook&utm_medium=social&utm_content=organic&utm_campaign=NGMT_2_SJH_Nature

Compromised Metabolic Reprogramming Is an Early Indicator of CD8+ T Cell Dysfunction during Chronic Mycobacterium tuberculosis Infection

[https://www.cell.com/cell-reports/fulltext/S2211-1247\(19\)31516-5?dgcid=raven_jbs_etoc_email](https://www.cell.com/cell-reports/fulltext/S2211-1247(19)31516-5?dgcid=raven_jbs_etoc_email)

T Cell Activation through Isolated Tight Contacts

[https://www.cell.com/cell-reports/fulltext/S2211-1247\(19\)31493-7?dgcid=raven_jbs_etoc_email](https://www.cell.com/cell-reports/fulltext/S2211-1247(19)31493-7?dgcid=raven_jbs_etoc_email)

Interleukin-7 Receptor Alpha in Innate Lymphoid Cells: More Than a Marker

<https://www.frontiersin.org/articles/10.3389/fimmu.2019.02897/full>

Trained immunity modulates inflammation-induced fibrosis

<https://www.nature.com/articles/s41467-019-13636-x>

A tissue-like platform for studying engineered quiescent human T-cells' interactions with dendritic cells

<https://elifesciences.org/articles/48221>

The Interplay Between Innate Lymphoid Cells and the Tumor Microenvironment

<https://www.frontiersin.org/articles/10.3389/fimmu.2019.02895/full>

Immune Sensing of Cell Death through Recognition of Histone Sequences by C-Type Lectin-Receptor-2d Causes Inflammation and Tissue Injury

[https://www.cell.com/immunity/fulltext/S1074-7613\(19\)30494-7](https://www.cell.com/immunity/fulltext/S1074-7613(19)30494-7)

Ribosome biogenesis restricts innate immune responses to virus infection and DNA

<https://elifesciences.org/articles/49551>

Maternal vaccination and protective immunity against Zika virus vertical transmission

<https://www.nature.com/articles/s41467-019-13589-1>

High-Throughput Mapping of B Cell Receptor Sequences to Antigen Specificity

[https://www.cell.com/cell/pdf/S0092-8674\(19\)31224-3.pdf](https://www.cell.com/cell/pdf/S0092-8674(19)31224-3.pdf)

B cell receptor ligation induces display of V-region peptides on MHC class II molecules to T cells

<https://www.pnas.org/content/116/51/25850>

New Oral Polio Vaccine to Bypass Key Clinical Trials

<https://www.the-scientist.com/news-opinion/new-oral-polio-vaccine-to-bypass-key-clinical-trials-66859>

Disrupting coupling within mycobacterial F-ATP synthases subunit ϵ causes dysregulated energy production and cell wall biosynthesis

<https://www.nature.com/articles/s41598-019-53107-3>

Compound in green tea plant shows potential for fighting tuberculosis, finds research team led by NTU Singapore: <https://media.ntu.edu.sg/NewsReleases/Pages/newsdetail.aspx?news=0290be83-da89-486f-9eb7-a02be49e1d24>

Variant signal peptides of vaccine antigen, FHbp, impair processing affecting surface localization and antibody-mediated killing in most meningococcal isolates

<https://www.frontiersin.org/articles/10.3389/fmicb.2019.02847/full>

Early-life programming of mesenteric lymph node stromal cell identity by the lymphotoxin pathway regulates adult mucosal immunity

<https://immunology.sciencemag.org/content/4/42/eaax1027>

A role for phagocytosis in inducing cell death during thymocyte negative selection

<https://elifesciences.org/articles/48097>

T Cell Antifungal Immunity and the Role of C-Type Lectin Receptors

[https://www.cell.com/trends/immunology/fulltext/S1471-4906\(19\)30240-6?dgcid=raven_jbs_etoc_email](https://www.cell.com/trends/immunology/fulltext/S1471-4906(19)30240-6?dgcid=raven_jbs_etoc_email)

New research uncovers improvements in vaccines against meningitis

<https://www.nottingham.ac.uk/news/meningitis-vaccines>. Link to research article:

https://www.frontiersin.org/articles/10.3389/fmicb.2019.02847/full?utm_source=Email_to_authors_&utm_medium=Email&utm_content=T1_11.5e1_author&utm_campaign=Email_publication&field=&journalName=Frontiers_in_Microbiology&id=498472

Travel time to health facilities in areas of outbreak potential: maps for guiding local preparedness and response

<https://bmcmmedicine.biomedcentral.com/articles/10.1186/s12916-019-1459-6>

Body cells spy out bacteria

The aryl-hydrocarbon receptor detects when bacteria increase so much in number that they become a danger to the body. <https://www.mpg.de/14272167/1216-infe-105755-koerperzellen-spionieren-krankheitserreger-aus>

The not-so-sterile womb: Evidence that the human fetus is exposed to bacteria prior to birth

https://www.frontiersin.org/articles/10.3389/fmicb.2019.01124/full?utm_source=ad&utm_medium=fb&utm_campaign=ba_sci_fmicb

Tuberculosis vaccine finds an improved route

<https://www.nature.com/articles/d41586-019-03597-y>

Link to research article: <https://www.nature.com/articles/s41586-019-1817-8>

DNA Methylation Bisubstrate Inhibitors Are Fast-Acting Drugs Active against Artemisinin-Resistant Plasmodium falciparum Parasites

<https://pubs.acs.org/doi/10.1021/acscentsci.9b00874>

Molecular Signatures of Dengue Virus-Specific IL-10/IFN- γ Co-producing CD4 T Cells and Their Association with Dengue Disease

[https://www.cell.com/cell-reports/fulltext/S2211-1247\(19\)31598-0](https://www.cell.com/cell-reports/fulltext/S2211-1247(19)31598-0)

Molecular Switch for Gene Therapy Could Provide Dosing Control

<https://www.clinicalomics.com/topics/precision-medicine-topic/molecular-switch-for-gene-therapy-could-provide-dosing-control/>

Regulation of host-microbe interactions at oral mucosal barriers by type 17 immunity

<https://immunology.sciencemag.org/content/5/43/eaau4594.full>

Cis interactions make immune checkpoint blockade more trans-parent

<https://immunology.sciencemag.org/content/5/43/eaba7107.full>

Maturation of the human B-cell receptor repertoire with age

<https://www.biorxiv.org/content/10.1101/609651v2.full#F13>

Allergen-specific IgG+ memory B cells are temporarily linked to IgE memory responses

<https://www.sciencedirect.com/science/article/abs/pii/S0091674919326028>

Targeting Cholesterol Metabolism in Macrophages to Eliminate Viral Infection

http://english.cas.cn/newsroom/research_news/life/201912/t20191226_228527.shtml

Global polio eradication falters in the final stretch

<https://science.sciencemag.org/content/367/6473/14>

"Good" T Cells Can Go "Bad," But in the Case of Cancer, That's A Good Thing

<https://www.labroots.com/trending/immunology/16542/good-cells-bad-cancer-that-s>

Link to research article: [https://www.cell.com/immunity/fulltext/S1074-7613\(19\)30526-6?_returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS1074761319305266%3Fshowall%3Dtrue](https://www.cell.com/immunity/fulltext/S1074-7613(19)30526-6?_returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS1074761319305266%3Fshowall%3Dtrue)

JOBS and POSITIONS

Associate Professor in Epidemiology/Infectious diseases (clinical or non-clinical)

The closing date is January 8, 2020. Please find more details at

<https://jobs.lshtm.ac.uk/vacancy.aspx?ref=EPH-IDE-2019-46>

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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