

NEWSLETTER

SOUTH AFRICAN IMMUNOLOGY SOCIETY



FEATURES

IUIS 2023 Congress Sneak Peak
IUIS 2023 Conference Highlights
SAIS Newsletter Survey Winners!

AWARENESS

World Aids Day
1 December

LOOK OUT

IUIS 2023 Congress highlights
in upcoming Special Edition
Newsletter

MESSAGE FROM THE EDITOR

Dear SAIS Members,

Welcome to the last of our regular newsletters for the year, the November edition. In this edition, we welcome all our members, networks, friends, and students to the IUIS 2023 Congress in the beautiful city of Cape Town. We are thrilled to have you join the world's biggest gathering of immunologists. The largest display of industry players for all your research supplies. We also provide valuable insights and information on the various talks/presentations at the conference ground. Pass by the SAIS tent to say "hi", and to register, play some games, and win gorgeous SAIS branded souvenirs.

Look out for our special edition newsletter in December, showcasing the events of the IUIS 2023 Congress. If you can't wait until then, check out page 3 for a sneak peak!

Each year, World AIDS Day is commemorated on the 1st of December and is a reminder of our fight against the HIV epidemic. Check out page 6 for some key facts and stats on HIV.

To all SAIS members, here is a gentle reminder to keep up-to-date with your membership. If you have not renewed your membership, please do so by visiting the SAIS website or reaching out to us via email and we will assist you.

Of note, excluding the special edition, we will be pausing our monthly newsletters, resuming in February 2024. Until then, we wish you peace, joy, and prosperity in the coming year!



Happy reading!

With regards,
Dr. Clement Gascua



CONTACT US!

Please send us your recent publications so that we can showcase them in our Community Corner. If you are hiring/recruiting, let us use our various platforms, the newsletter and our social media, to advertise for you. If you have any webinars, seminars, or conferences, we would be more than happy to add it to the newsletter. You can simply email the editorial team at newsletter@saimmunology.org.za by the 20th of each month to be featured in our next newsletter.



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admin@saimmunology.org.za
newsletter@saimmunology.org.za



South African Immunology Society
(SAIS)



[@SAImmunologySociety](https://www.facebook.com/SAlmmunologySociety)



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IUIS

2023
CAPE TOWN

TURN DISCOVERIES INTO TREATMENTS
27 November - 2 December 2023
Cape Town, South Africa

WHERE IMMUNOLOGISTS MEET

The International Congress of Immunology (IUIS) is here! This congress serves as a world-leading conference in the field of immunology. It assembles immunologists from universities, health providers, independent research organisations and industry.



FEBRUARY 08 - 11, 2024 | BEAVER RUN RESORT, COLORADO, UNITED STATES

SYSTEMIC AUTOIMMUNE AND AUTOINFLAMMATORY DISEASES

Organizers: Mariana Kaplan, Georg Schett, and Carola Vinuesa

For more information, please click [here](#).

FEBRUARY 18 - 21, 2024 | FAIRMONT BANFF SPRINGS, ALBERTA, CANADA

REGULATION OF BARRIER IMMUNITY

Joint Meeting with [Fungal Pathogens: Emerging Threats and Future Challenges](#)

Organizers: David Artis, Yasmine Belkaid, Kenya Honda, and Fiona Powrie

For more information, please click [here](#).

IMMUNOLOGY2024™

THE ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS

MAY 3-7, 2024 | CHICAGO, ILLINOIS

WWW.IMMUNOLOGY2024.ORG



Abstract submissions now open!

Join us Friday, May 3, to Tuesday, May 7, in Chicago for the leading annual all-immunology event worldwide!

- Explore the latest developments in your field.
- Attend lectures by the world's most prominent scientists.
- Speak with poster authors presenting their cutting-edge data.
- Network with colleagues from around the world.



More than Three Decades of Bm86: What We Know and Where to Go

Authors: Laura Jane Bishop, Christian Stutzer and Christine Maritz-Olivier

Affiliations: Department of Biochemistry, Genetics and Microbiology, Faculty of Natural and Agricultural Sciences, University of Pretoria, South Africa.

Take home message

In a global climate of increasing acaricide resistance, host immunity against tick infestation has become a much-needed complementary strategy to common chemical control. From the earliest acquired resistance studies in small animal models to proof of concept in large production animals, it was the isolation, characterization, and final recombinant protein production of the midgut antigen Bm86 from the Australian cattle tick strain of *Rhipicephalus (Boophilus) microplus* (later reinstated as *R. (B.) australis*) that established tick subunit vaccines as a viable alternative in tick and tick-borne disease control.

In this article, the authors converge available evidence in the past 37 years on Bm86, an antigen being evaluated as a subunit vaccine in the livestock industry. Though several studies are still describing its molecular structure and function, this antigen remains the gold standard for all tick vaccines. In this paper, advances in tick vaccine development over the past three decades are discussed alongside the development of biotechnology, where existing gaps and future directives in the field are highlighted.



pathogens





WORLD AIDS DAY

1 December 2023



HIV is a major global public health issue, having claimed 40.4 million [32.9–51.3 million] lives so far with ongoing transmission in all countries globally; with some countries reporting increasing trends in new infections when previously on the decline.

There were an estimated 39.0 million [33.1–45.7 million] people living with HIV at the end of 2022, two thirds of whom (25.6 million) are in the WHO African Region.



In 2022, 630 000 [480 000–880 000] people died from HIV-related causes and 1.3 million [1.0–1.7 million] people acquired HIV.

WHO, the Global Fund and UNAIDS all have global HIV strategies that are aligned with the SDG target 3.3 of ending the HIV epidemic by 2030.

When considering all people living with HIV, 86% [73–98%] knew their status, 76% [65–89%] were receiving antiretroviral therapy and 71% [60–83%] had suppressed viral loads.

By 2025, 95% of all people living with HIV (PLHIV) should have a diagnosis, 95% of those should be taking lifesaving antiretroviral treatment (ART) and 95% of PLHIV on treatment should achieve a suppressed viral load for the benefit of the person's health and for reducing onward HIV transmission. In 2022, these percentages were 86(%) [73–98%], 89(%) [75–98%] and 93(%) [79–98%], respectively.



World Health
Organization





IVIS 2023 Conference Highlights

IVIS2023

Kruger National Park | South Africa



13TH INTERNATIONAL VETERINARY IMMUNOLOGY SYMPOSIUM 17-21 NOVEMBER, 2023



www.ivos2023.org @ivos2023



230 registrations
212 attendees



37 countries



163 1st time attendees



Thank you to our invited speakers



Celia Abolnik



Baptiste Dungu



Mariela Segura



Samuel Thevasagayam



Michelle Baker



Wilhelm Gerner

Congratulations to the poster competition winners:

- Milena Brunner, Germany (Adaptive Immunity)
- Teerawut Nedumpun, Thailand (Immunology of viral diseases)
- Anna Lacasta, Kenya (Vaccine Development)
- Ellen Cottingham, Australia (Vaccine Development)
- ATTENDEE'S CHOICE: Camila Espejo, USA (Immunology of wildlife and exotics)



IVIS2023 Distinguished Veterinary Immunologist (DVI) Award:

Congratulations to our 10th DVI award recipient Dr Joan Lunney!



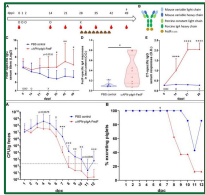
Thank you for attending!



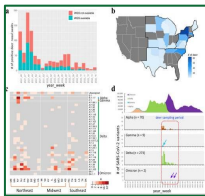
IVIS *Immunology without Borders*
International Union of Immunological Societies



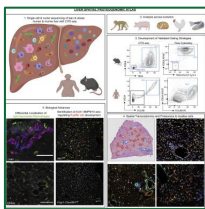
The Veterinary Immunological Toolbox: Past, Present, and Future
 Entrican, et al. 2020. *Front. Immunol.* 2020. 11: 1651.
 Doi: 10.3389/fimmu.2020.01651.



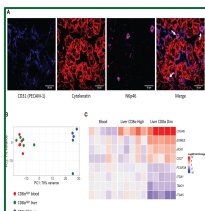
Targeted delivery of oral vaccine antigens to aminopeptidase N protects pigs against pathogenic *E. coli* challenge infection
 Van der Weken, et al. 2023, *Front Immunol.* 14: 1192715.
 Doi: 10.3389/fimmu.2023.1192715.



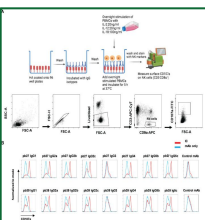
Transmission of SARS-CoV-2 in free-ranging white-tailed deer in the United States
 Feng, et al., 2023. *Nat Commun.* 14: 4078.
 Doi: 10.1038/s41467-023-39782-x.



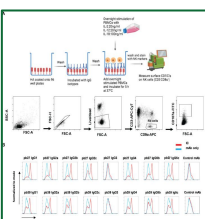
Spatial proteogenomics reveals distinct and evolutionarily conserved hepatic macrophage niches
 Guilliams, et al., 2022. *Cell.* 185 (2): 379-396.
 Doi: 10.1016/j.cell.2021.12.018.



Comparative transcriptomics of porcine liver-resident CD8 α ^{dim}, liver CD8 α ^{high} and circulating blood CD8 α ^{high} NK cells reveals an intermediate phenotype of liver CD8 α ^{high} NK cells
 Hermans, et al., 2023. *Front Immunol.* 14.
 Doi: 10.3389/fimmu.2023.1219078.



Distinct effector functions mediated by Fc regions of bovine IgG subclasses and their interaction with Fc gamma receptors
 Noble, et al., 2023. *Front Immunol.* 14:1286903.
 Doi: 10.3389/fimmu.2023.1286903.



Fc-Mediated Functions of Porcine IgG Subclasses
 Paudyal, et al., 2022. *Front Immunol.* 13: 903755.
 Doi: 10.3389/fimmu.2022.903755

Biotechnology and Biological Sciences Doctoral Training Programme - University of Nottingham, England

The Nottingham BBSRC Doctoral Training Partnership is led by the University of Nottingham in partnership with Nottingham Trent University and the National Biofilms Innovation Centre (NBIC), and offers fully funded, four-year PhD studentships that are aligned to strategic priorities supported by the Biotechnology and Biological Sciences Research Council (BBSRC). For more information and for access to this program's Virtual Open Day, please visit <https://www.nottingham.ac.uk/bbdtp/>.

Application deadline: Tuesday 16 January 2024, British Standard Time.

Postdoctoral Fellow - NICD, Sandringham, Johannesburg

A position exists for a postdoctoral fellow to work on Ebola antibody discovery in the Antibody Immunity Research Unit based at the NICD. The fellow, supervised by Dr Jinal Bhiman and Dr Dale Kitchin, will adapt and optimize current human monoclonal antibody isolation pipelines for use in mice. This project will include protein expression, flow cytometry, immunoglobulin gene molecular amplification/enrichment/sequencing and antibody characterization. Isolated monoclonal antibodies will be generated for translation into diagnostic and immunoreagent use. This position will be funded by a Bill and Melinda Gates Foundation Grand Challenges grant.

Submit a detailed CV to vacancies12@witshealth.co.za

Key performance areas

Protein biochemistry (recombinant protein expression and purification, performing serological assays including:

Antibody characterization including ELISA/Luminex binding assays.

Mammalian cell culture (sterile technique, maintenance and cryopreservation of cell lines).

Molecular

biology (nucleic acid extractions, plasmid preparation, PCR and cloning).

Preparation of Sanger-dideoxy and Illumina sequencing libraries.

Participate in training staff/students/collaborators.

First and foremost, the SAIS Newsletter editorial team would like to thank each and every member that participated in any/all of our 5 surveys. Your contributions are invaluable to us and we plan to put all of the information we gathered to good use!

Congratulations to our two winners on receiving the grand prize- a copy of the beautifully illustrated book "IMMUNE: A journey into the mysterious system that keeps you alive", by Philipp Dettmer.

Please email us on newsletter@saimmunology.org.za to claim your prize.

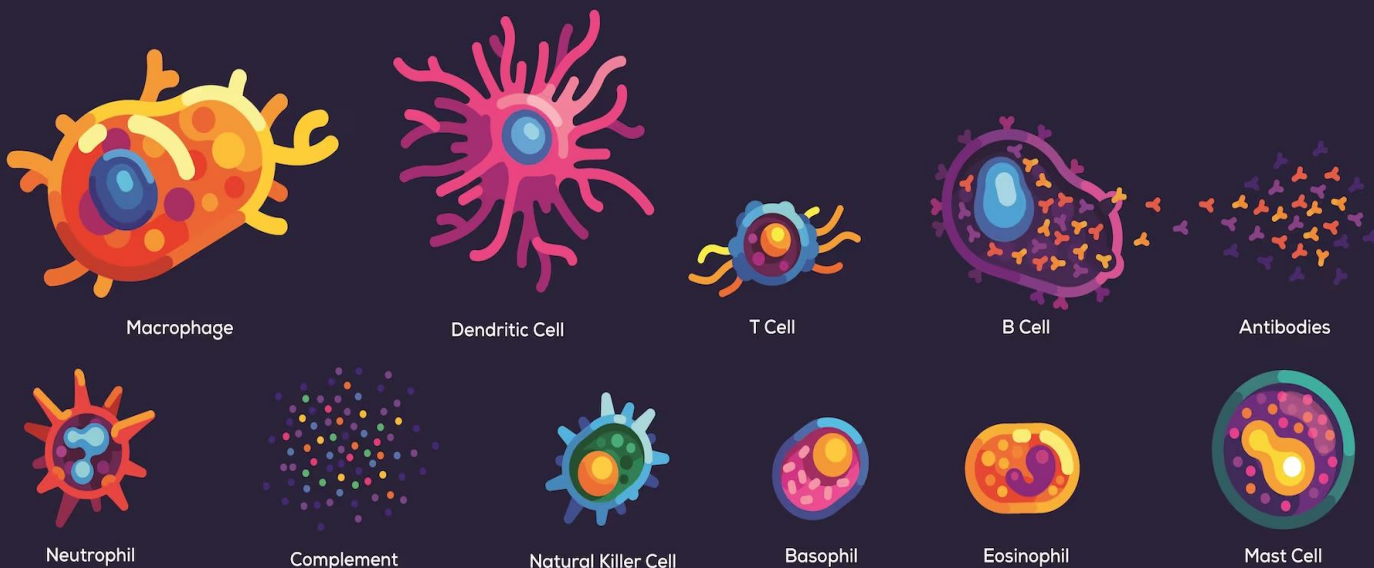
WINNERS!



Catherine Worsley



Mqondisi Tshabalala



The SAIS would like to thank all members for their ongoing support! It is highly appreciated. To continue being a part of our growing community, please renew your membership!

To update your membership and familiarise yourself with the new renewal process, follow the link below:

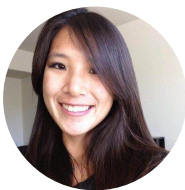
[CLICK HERE](#) 

 **RESOURCES TO FOLLOW**

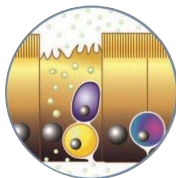
Check out these resources for more immunology-related information:

 **SOCIALS TO FOLLOW**

Social media is a great way to stay up-to-date with the immunology community! Why not check out these social media handles:



[@KatherineJWu](#)



[@socmucimm](#)



[@Daltmann10](#)

Grab a hot cup of ImmuniTea and share your thoughts with us. We appreciate your feedback!
The SAIS Newsletter Editorial Team

Editor

Dr. Clement Gascua

Co-Editors

*Sashkia Balla
Thanusha Pillay*

Co-Editors

*Dr. Christine Mwenge Kahinda
Laura Bishop*