

NEWS

WINTER 2023



STAR-IDAZ
International Research
Consortium on Animal Health



Message from Chair

It has been an interesting and productive year for STAR-IDAZ International Research Consortium (IRC), supported as always by the secretariat (SIRCAH). One of the roles of SIRCAH is to encourage more partner organisations to join STAR-IDAZ IRC, and I am delighted to announce that we have a number of new partners: Kenya Agricultural & Livestock Research Organisation (KALRO); the National Agricultural Research Organisation (NARO), Uganda; the Office National for the Sanitary Safety of Food Products (ONSSA), Morocco; and a Swiss Regional Consortium. The consortium is made up of the Swiss Federal Office for Food Safety and Veterinary Affairs and the Institute of Virology and Immunology. I am sure you would like to join me in welcoming them all to STAR-IDAZ IRC. This brings the number of STAR-IDAZ IRC partners to 34.

At the Scientific Committee meeting at ILRI, Nairobi in June 2023, Edwin Claerebout announced that he would be stepping down from the Scientific Committee. Edwin has played an important role in the Helminth Working Group, and I would like to thank him for all his input. He will be replaced in the Helminth Working Group by Dr Smaro Sotiraki, from the Veterinary Research Institute of Hellenic Agricultural Organisation, Greece.

The STAR-IDAZ IRC Working Groups have had a busy year, with workshops being held for bTB, vector transmission control, influenza, contagious bovine

pleuropneumonia, foot-and-mouth disease and alternatives to antibiotics, and with three research roadmaps being produced for influenza disease control strategies, diagnostic tests and candidate vaccines, and I would like to thank everyone in each working group for their time, input and dedication to STAR-IDAZ IRC.

The final achievement of 2023 has perhaps been the publication of the 2023 **State-of-the-Art Report**. The aim of this report is to provide STAR-IDAZ IRC members, as well as other animal health stakeholders, with an overview of the existing opportunities to speed up research, to boost collaboration in

the sector, and to provide an overview of the latest discoveries on priority animal diseases. Overall, the information provided in the report will support the decisions of policy makers and research funders, to accelerate coordinated development of control methods at the international level.

Season's Greetings to you all – I wish you a peaceful end to 2023, and a joyful start to 2024.

Hong Yin
Chair, Executive
Committee, IRC



Executive Committee

STAR-IDAZ IRC is delighted to welcome four new partner organisations, all of which have joined in the last few months: Kenya Agricultural & Livestock Research Organisation (KALRO); the National Agricultural Research Organisation (NARO), Uganda; the Office National for the Sanitary Safety of Food Products (ONSSA), Morocco; and a Swiss Regional Consortium.

The consortium is made up of the Swiss Federal Office for Food Safety and Veterinary Affairs and the Institute of Virology

and Immunology. Their Executive Committee representatives will be: Dr Monicah Maichomo (Institute Director, KALRO), Dr Halid Kirunda (Director of Research, NARO), Dr Younes El Wahli (Head of department of pharmacy and veterinary inputs, ONSSA), and Dr Barbara Wieland (Head of IVI). We look forward to meeting them all at the next Executive Committee meeting, which will be held in January 2024.



SIRCAH were delighted to welcome Kenya Agricultural & Livestock Research Organisation (KALRO) and the National Agricultural Research Organisation (NARO, Uganda) to STAR-IDAZ at the AMERN meeting in South Africa.

Scientific Committee

The Scientific Committee welcomes Dr Smaragda Sotiraki (Hellenic Agricultural Organisation Demeter, Greece) as a new member of the committee.

The Scientific Committee met on 4 December 2023 by webinar. The Committee was updated on meetings of the Regional Networks and informed of recent publications, before reviewing and discussing the recent activities of the Working Groups for Mycoplasmas including contagious bovine pleuropneumonia (CBPP), Antimicrobial Resistance (AMR) and alternatives to antibiotics,

Foot-and-Mouth Disease and Vaccinology, particularly vaccine platform technologies. Following the approval of a new Aquaculture Working Group at the June meeting of the Executive Committee, Ruth Zadoks (Scientific Committee and University of Sydney, Australia) presented an overview of main production species, type of productions and knowledge available from existing networks. The Committee discussed possible scopes for the Working Group and agreed next steps. More information about the new Working Group is available in the **Aquaculture section**.

Regional Networks

Africa and the Middle East Regional Network

The Regional Network for Africa and Middle East met on 1 August 2023 by webinar and in South Africa on 16 November 2023. Participants from Algeria, Botswana, Israel, Iran, Kenya, Nigeria, Morocco, South Africa, Tanzania, Uganda, and representatives of ERFAN (Enhancing Research for Africa Network), WOAHA Regional Office, GALVmed, ILRI (International Livestock Research Institute), and IDRC (International Development Research Centre) joined the meetings. Participants were updated on the activities of the STAR-IDAZ Working Groups for African Swine Fever, Bovine Tuberculosis, Mycoplasmas, Foot-and-Mouth Disease, Vector Transmission Control, Influenza, Vaccinology and One Health at the August meeting. In November 2023, the Network met alongside the 13th International Veterinary Immunology Symposium (IVIS2023) in Kruger National Park, South Africa. The Network had not met in-person since September 2017 in Abuja, Nigeria. The meeting was chaired by Dr Mustapha Oumouna (Regional Network Chair, Algeria) and included presentations from ARC-Onderstepoort Veterinary Research Institute (Dr Itumeleng Matle), and WOAHA Regional Office (Dr Tenzin Tenzin), with presentations on AU-EU Collaborations on Research and Innovation (Dr Vincenzo Lorusso), IDRC activities in the Region (Dr Lizzie Chesang) and Current activities on Contagious Bovine Pleuropneumonia (Dr Musa Mulongo). This was followed by country reports from each participant, reporting on the animal health priorities, research and challenges in their region, before the Network discussed the regional priorities and need for coordination.

Americas Regional Network

The Regional Network for the Americas met in-person at a pre-conference workshop on 22 August 2023, alongside the XXVI Latin American Congress on Microbiology (ALAM Congress) in Quito, Ecuador. This was the first in-person meeting since 2015, when the Network met in Bogotá, Colombia. Participants from Argentina, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Paraguay, Peru, Uruguay, and representatives of FAO, WOAHA, PAHO and CaribVET (Caribbean Animal Health Network) were present. The meeting was run in collaboration with the

EU-Americas project 'Working Together to Fight Antimicrobial Resistance', as the meeting had a focus on Antimicrobial Resistance and alternatives to antimicrobials in the region. The meeting included presentations from Dr Ariel Pereda (Regional Network Chair, Argentina), Valeria Mariano (Secretariat to STAR-IDAZ, WOAHA) and presentations from PAHO, FAO and WOAHA. More details available under the AMR and ATA section.

Asia and Australasia Regional Network

The Asia and Australasia Regional Network met by webinar on 9 October 2023. There were participants from Australia, China, Japan, Pakistan, Singapore, Thailand, and WOAHA Regional Offices. After updates on recent STAR-IDAZ activities, the meeting focused on aquaculture in the region particularly the current priorities, challenges and research efforts. Dr Thitiwan Patanasatienkul (Aquatic Animal Health Officer, WOAHA Regional Representative for Asia and the Pacific, Tokyo) gave a presentation titled 'Aquatic animal health activities in Asia and the Pacific', which highlighted the Asia-Pacific Aquatic Animal Health Network (AP AquaNet) and the WOAHA Aquatic Animal Health Strategy. The country reports given by each participant then focused on the research priorities and activities relating to aquaculture.

European Network

The STAR-IDAZ Regional Networks (for Africa & the Middle East, the Americas, Asia & Australasia, and Europe) facilitate regional cooperation and coordination by identifying common research priorities in the Region, opportunities for sharing resources including access to samples, specialised facilities and expertise, and international or regional funding opportunities.

Europe Network: SCAR Collaborative Working Group on Animal Health and Welfare Research (CWG-AHW)

The SCAR CWG on Animal Health and Welfare Research operates as the STAR-IDAZ Regional Network for Europe. The Network last met in early May in Vienna, Austria and will meet by webinar on 7 December 2023. The Secretariat will provide an update on STAR-IDAZ activities at this meeting.



On 16 November 2023 participants from Algeria, Botswana, Israel, Kenya, Nigeria, Morocco, South Africa, Tanzania, Uganda and representatives from ERFAN, WOAHA and IDRC met for the AMERN meeting.

AMR and ATA

On 22 August 2023, a pre-congress workshop addressing alternatives to antimicrobials took place in Quito, Ecuador, in conjunction with the Latin American Microbiology Congress (ALAM 2023). The event was co-organized by the STAR-IDAZ Americas Regional Network, WOAAH Regional Representation for the Americas, and the EU project '[Working Together to Fight Antimicrobial Resistance](#)', with support from Agrocalidad, the regulatory agency of Ecuador for agricultural and veterinary control.

The workshop was attended by 48 participants from various countries including Argentina, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Paraguay, Peru, and Uruguay. The attendees

represented diverse stakeholders including WOAAH National Focal Points, specialized ATA or AMR researchers, and decision-makers from Ministries of Science and Agriculture.

The session commenced with significant presentations, including research roadmaps on ATA, setting the stage for a world café workshop in the afternoon. This workshop comprised discussions across four tables, emphasizing knowledge-sharing and experiences regarding regional challenges and research requirements for developing and implementing alternatives to antimicrobials. [The Report of the workshop on the Americas' Regional perspectives on Alternatives to Antimicrobials \(ATA\)](#) is available on the STAR-IDAZ website.



Americas Alternatives to Antibiotics workshop in Quito, Ecuador on 22 August 2023.

Vaccinology

On 17 November 2023, alongside the 13th International Veterinary Immunology Symposium (IVIS2023), a groundbreaking workshop titled 'Platform Technologies for the Development of Veterinary Vaccines Against Bacteria' was held. Organized by Gary Entrican and Jayne Hope (College of Medicine and Veterinary Medicine, the Roslin Institute, the University of Edinburgh), this event was a key part of IVIS2023, which ran from 17 to 21 November in Kruger, South Africa.

The workshop featured expert presentations and focused group discussions, aimed at identifying gaps in the development of bacterial vaccines for animals and exploring novel vaccine platform technologies to address these challenges. Emphasizing the creation of fit-for-purpose vaccines, the discussions were tailored to meet the needs of end-users, particularly in low- and middle-income countries.

Breakout groups worked collaboratively, and their findings were shared in a final Q&A session with all attendees, providing a holistic view of the current state and future directions in veterinary bacterial vaccinology. The insights from these discussions will be summarized in a comprehensive report, intended to guide future research in this vital field.

Supported by organizations including UKRI BBSRC, STAR-IDAZ IRC, The Methane Hub, Defra, IUIS VIC, and the Vaccinology Networks IVVN, VALIDATE, and BactiVac, the workshop was not just a meeting of minds but a beacon for future collaborations and innovations in global animal health.



Gary Entrican and Jayne Hope

Mycoplasmas

The Report of the Gap Analysis Meeting for Contagious Bovine Pleuropneumonia (CBPP) was published in September 2023. This report, produced in collaboration with the United States Department of Agriculture - Agricultural Research Service (USDA-ARS), aims to: provide current scientific knowledge of CBPP; identify potential threats to livestock worldwide; identify research needs and priorities; offer an in-depth analysis of available countermeasures to contain and mitigate threats; and deliver specific recommendations for research and countermeasure development. Findings from the CBPP workshop, included in the draft Gap Analysis Report, were presented at the IOM in Japan on 16-20 July 2023. Both the [Report of the Gap Analysis Meeting for CBPP](#) and the [2023 Veterinary Mycoplasmas Research Report](#) are available on the STAR-IDAZ website. Mycoplasmas are a STAR-IDAZ IRC priority area, and a working group will be formed in 2024.

ASF

The Global African Swine Fever Research Alliance (GARA) recently shared presentations from the 2023 GARA gap analysis held in Kampala, Uganda, focusing on identifying crucial knowledge and research gaps specific to ASF in Africa (available [here](#)). Attended by approximately 50 experts, the workshop emphasized sustained collaboration in ASF research. Updates on control strategies came from WOA, FAO, and ILRI, complemented by country-specific reports framing the African epidemiological context and shedding light on Asian outbreaks. Advancements in vaccine development and the genomic database of the Center for Excellence for ASF Genomics were reported by the USDA. Finally, a world café workshop aimed to pinpoint ASF research gaps in Africa.

A report on the latest workshop held in the Philippines 5-7 December 2023, will be made available in due course on the GARA website [here](#). The workshop focused on identifying knowledge and research gaps specific to ASF in Asia with sessions dedicated to epidemiology & diagnostics, and vaccines & virology. The workshop was attended by scientists and experts familiar with the Asian ASF landscape. The [ASF research reviews](#) stimulated discussions. Collaboration between GARA and STAR-IDAZ will ensure updates to the ASF research roadmaps based on insights gained from these impactful workshops.

FMD

STAR-IDAZ IRC, in collaboration with the Global Foot-and-Mouth Disease Research Alliance (GFRA), hosted an insightful workshop on 9 November 2023, in Uganda. This workshop was a part of the GFRA 2023 Scientific Meeting, and the aim was to update the STAR-IDAZ IRC FMD roadmaps.

The workshop saw the participation of 51 experts specializing in FMD from diverse regions including Africa, Europe, the Americas, and Asia. These experts engaged in a dynamic discussion session, delving into critical topics such as virus characteristics, host interactions, diagnostics, vaccines, and control strategies.

The primary objective of the workshop was to gather insights on the current situation of FMD, identifying pressing issues, research gaps, and potential solutions across various domains. The experts provided valuable feedback and shared their knowledge, which will serve to update and refine the roadmaps on diagnostics, vaccines, and control strategies for FMD.

This workshop was a major step forward in the worldwide fight against FMD. It highlighted how working together internationally and sharing expert knowledge is key to dealing with this challenging animal disease.

Aquaculture

The STAR-IDAZ IRC aims to accelerate the development of tools enhancing aquatic animal health, given the crucial role of aquatic creatures as a primary protein source for billions of people worldwide. Recent discussions within the IRC, led by Ruth Zadoks in the Scientific Committee, focused on how to best kickstart this new priority field, considering main production species, type of productions and knowledge available from existing networks.

It was agreed to identify initially the highest-priority research areas on aquaculture that would yield significant and lasting benefits for global aquatic animal disease management. To achieve this, there is a plan to collaborate with WOA within its [Aquatic Animal Health Strategy](#), potentially co-organizing a joint workshop in the coming year. Additionally, deeper gap analyses for specific disease research roadmaps might occur in the future, possibly in partnership with DISCONTTOOLS, to further enhance focused research efforts in this domain.

Helminths

The Livestock Helminth Research Alliance ([LiHRA](#)) met on 2 and 3 November in Bro, north of Stockholm, in a meeting hosted by Prof. Johan Höglund from the Swedish Livestock University (SLU). LiHRA coordinates the activities of the STAR-IDAZ IRC Helminth Working Group. Participants worked on and approved the new statutes of the society which clarify the modus operandi as well as the membership requirements of the alliance. There was also time set aside to share recent project results and discuss emerging research needs as well as future opportunities for collaboration. In particular, it was discussed how LiHRA partners can contribute to the EU Partnership in Animal Health & Welfare. A new collaborative Horizon Europe project was announced: the Thematic Network SPARC (Sustainable Parasite Control), which will advance dissemination and implementation of previous research results into good farming and veterinary practices. This project will kick off in February 2024.

SIRCAH News

The EU and UKRI-funded Secretariat (SIRCAH2, Support for the International Consortium on Animal Health), which provides support for all STAR-IDAZ IRC activities, has been busy in the last six months of 2023. Of particular note are the appointment of an IT company to produce a new website and roadmap platform, and the publication of the **Annual state-of-the-art report on animal health research on IRC priorities**.

The STAR-IDAZ website and roadmap platform is currently undergoing a major revamp. We are working with an IT company called This Is Modular, who specialise in designing and building user-focused websites and content management systems. Thank you to all stakeholders who have helped us by participating in interviews conducted by This Is Modular. These interviews will significantly help to ensure the new website will maximise utility for our users. We are currently working to a tight project timeline and we aim to launch our new website by the end of Q1 next year. We really appreciate your help and patience and we will keep you updated on the progress in the near future.

The State-of-the-Art Report is produced annually by SIRCAH on behalf of the STAR-IDAZ IRC. This comprehensive report provides valuable insights into the latest developments and trends within animal health research. It offers an overview of opportunities to accelerate research, foster collaboration, and presents the latest discoveries related to priority animal health diseases.

STAR-IDAZ IRC is also pleased to welcome four new partner organisations: Kenya Agricultural & Livestock Research Organisation (KALRO); the National Agricultural Research Organisation (NARO), Uganda; the Office National for the Sanitary Safety of Food Products (ONSSA), Morocco; and a Swiss Regional Consortium. The consortium is made up of the Swiss Federal Office for Food Safety and Veterinary Affairs and the Institute of Virology and Immunology. We welcome you to STAR-IDAZ and look forward to working with you.

The Secretariat would like to thank all members and participants for their support and commitment to STAR-IDAZ IRC and looks forward to working with you over the coming years.

News From our members

In 2023 STAR-IDAZ IRC welcomed six new partners, bringing the total to 34. The latest partners are: Kenya Agricultural & Livestock Research Organisation (KALRO); the National Agricultural Research Organisation (NARO), Uganda; the Office National for the Sanitary Safety of Food Products (ONSSA), Morocco; and a Swiss Regional Consortium. The consortium is made up of the Swiss Federal Office for Food Safety and Veterinary Affairs and the Institute of Virology and Immunology. The new partners will be represented by: Dr Monicah Maichomo (Institute Director, KALRO), Dr Halid Kirunda (Director of Research, NARO), Dr Younes El Wahli (Head of department of pharmacy and veterinary inputs, ONSSA), and Dr Barbara Wieland (Head of IVI).

DISCONTTOOLS, the database collecting research gaps for > 50 infectious diseases of animals refreshed the look and feel of its website. Moreover, new functionalities were added and it is now possible to filter diseases by animal species and region in the world. The regions that can be selected are aligned with those of the STAR-IDAZ Regional Networks. Check it out [here](#).



Discovery and Innovation Conference in Animal Health (DIAH) will take place 6-8 February 2024 in Ghent and is inviting participants from academia and start-ups to bring early developers into contact with medium to big sized companies and stimulate collaboration and innovation in animal health. STAR-IDAZ is supporting two of the six selected pitch applications on novel technologies. Sanjay Vashee from the J. Craig Venter Institute (USA) will provide a pitch on a genome-wide, combinatorial reverse genetics system for African Swine Fever Virus using synthetic biology to accelerate vaccine development. Paul Hodgson from VIDO (Canada) will present a novel recombinant vaccine for control of contagious bovine pleuropneumonia (CBPP) in cattle. Congratulations to the two awardees of the STAR-IDAZ Innovation Accelerator support and buon **DIAH!**

IRC Members

The complete list of members is:

1. Danish National Veterinary Institute (DTU Vet), Denmark
2. National Institute of Agricultural Research (INRA), France
3. French Agency for Food, Environmental and Occupational Health & Safety (ANSES), France
4. Ministry of Health, Italy
5. Ministry of Agriculture, Nature and Food Quality, The Netherlands
6. National Institute for Agriculture and Food Research and Technology (INIA), Spain
7. Department for the Environment, Food and Rural Affairs (Defra), UK
8. Biotechnology and Biological Science Research Council (BBSRC), UK
9. Regional Consortium; Universiteit Gent (Ghent University), Université de Liège, the Federal Public Service Health, Food Chain Safety and Environment (unit Contractual Research) and Sciensano
10. Kimron Veterinary Institute, Israel
11. International Livestock Research Institute (ILRI), Kenya
12. Tanzania Veterinary Laboratory Agency (TVLA), Tanzania
13. National Institute of Animal Health, National Agriculture and Food Research Organisation (NIAH), Japan
14. Agriculture Research Services, United States Department of Agriculture (USDA ARS), USA
15. National Institute of Agriculture Technology (INTA), Argentina
16. Ministry of Science, Technology and Productive Innovation (MINCYT), Argentina
17. Canadian Food Inspection Agency (CFIA), Canada
18. Zoetis
19. WOA (World Organisation for Animal Health)
20. Bill and Melinda Gates Foundation (BMGF)
21. HealthforAnimals (Global Animal Medicines Association)
22. Diagnostics for Animals (Manufacturers of Animal Health Diagnostics)
23. European Commission
24. Regional Consortium; Nigerian Animal Health Research Network led by National Veterinary Research Institute Vom
25. National Advisory Council on Animal Health (CONASA) and the National Autonomous University of Mexico (UNAM), Faculty of Veterinary Medicine and Zootechnics (FVMZ)
26. Australian Centre for Disease Preparedness, CSIRO, Australia
27. Lanzhou Veterinary Research Institute (LVRI), China
28. National Veterinary Institute of Sweden (SVA), Sweden
29. National Institute of Food and Agriculture (NIFA), USA
30. Norwegian Veterinary Institute (NVI), Norway
31. Kenya Agricultural & Livestock Research Organisation (KALRO)
32. The National Agricultural Research Organisation (NARO), Uganda
33. The Office National for the Sanitary Safety of Food Products (ONSSA), Morocco
34. Regional Consortium; Swiss Regional Consortium (Swiss Federal Office for Food Safety and Veterinary Affairs and the Institute of Virology and Immunology)

SIRCAH2

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Further Information

For further information about the IRC please visit www.star-idaz.net. Research funding organisations and programme owners interested in joining the IRC or researchers interested in joining the working groups should contact the STAR-IDAZ IRC Project Office:

Johannes Charlier (Kreavet): j.charlier@animalhealtheurope.eu | Madeline Newman (Defra): madeline.newman@defra.gov.uk
Valeria Mariano (WOAH): v.mariano@woah.org | Gareth Dicks (CABI): g.dicks@cabi.org | Georgina Grell (CABI): g.grell@cabi.org
Latifa Elhachimi (Kreavet): latifa@kreavet.com



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