



**STAR-IDAZ**  
International Research  
Consortium on Animal Health

## Message from IRC Chair



The International Research Consortium on Animal Health is having to adapt to the new world of lockdown and cancelled conferences, workshops and meetings, due to COVID-19. The pandemic has shown how quickly diseases can spread across the globe, and demonstrates the importance of researchers, organizations and countries working together to counteract a common threat.

Following the movement of African swine fever in recent years, this new pandemic highlights the need for international cooperation on emerging threats and coordination of the research effort.

The need to develop new techniques to detect and diagnose diseases was agreed in meetings of the STAR-IDAZ IRC Scientific Committee and Executive Committee and plans to form a Diagnostics Working Group are in hand: STAR-IDAZ IRC members have been requested to recommend experts to be invited to a workshop, to brainstorm ways to improve diagnosis/detection of diseases in animals and determine which technologies currently in existence elsewhere could be used.

Despite the restrictions on meetings, conferences and workshops, the STAR-IDAZ IRC has continued to work to develop its roadmaps for major animal diseases, and coordinate the research effort to discover new vaccines, diagnostic tests, and disease prevention strategies. Major new developments to the roadmaps system have been implemented and partners are now able to upload their project information directly on the STAR-IDAZ IRC website.

The annual Executive Committee (ExCo) meeting that was to have been held at the Kimron Veterinary Institute, near Tel Aviv (Israel), in March had to be cancelled at short notice due to COVID-19. The one-day workshop on vector-borne diseases that had been organized for the day before the ExCo meeting also had to be cancelled. We did, however, manage to successfully organize a video-conference meeting involving ExCo with participants from 18 countries. It was decided at that meeting that we should have more video-conference meetings in future to supplement the annual ExCo meeting as well as to enable greater engagement from the members.

I am sad to say that Luke Dalton, who has been with STAR-IDAZ from its inception and managed the IRC Secretariat project, has moved on from Defra, where he has worked for 14 years. Luke is moving to Zoetis, in Dublin, one of the IRC Partners, so will still be in touch with friends and colleagues in the consortium. We wish Luke the very best in his new position and thank him for all of his work on the project.

I send my best wishes to colleagues on the International Research Consortium and hope that you and your families stay well. I ask you to consult the roadmaps on our STAR-IDAZ IRC website, and ensure that your current projects have been included. I look forward to the day that we will be able to meet again in person and drive forward our important agenda to control animal and zoonotic diseases.

**Hong Yin,**  
Director General, Lanzhou Veterinary Research Institute  
Chair IRC



Stefano explaining the roadmaps system from our poster at the ATA meeting

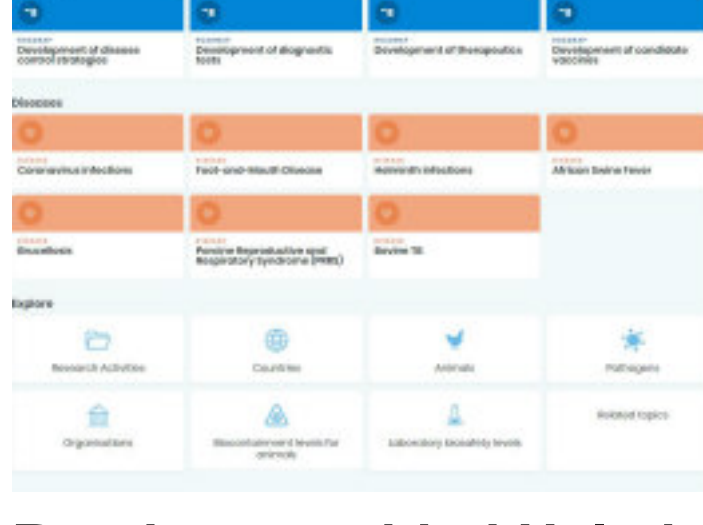


### Scientific Committee Ghent January 2020

The first Scientific Committee meeting of 2020 took place on 20-21 January in Ghent at the Faculty of Veterinary Medicine, Ghent University. The meeting welcomed two new members on to the committee, Isabelle Kinney Ferreira de Miranda Santos (an expert on disease vectors from University of Sao Paulo, Brazil), and Ruth Zadocks (a bacteriologist based at the University of Sydney, Australia). The committee reviewed the progress of new and existing working groups for the priority topics. It was recommended that working groups on vector transmission and control, animal coronaviruses, and animal genetics should be set up. The committee discussed the approach to coordinating research funders to address priority research gaps, and recommended a direct approach to be taken forward at the next Executive Committee meeting, listing major research gaps that had been identified and presenting them to consortium members.

Many of the planned activities for workshops and Working Group meetings attached to conferences have subsequently been postponed due to Covid-19 and associated travel restrictions.

**The next Scientific Committee was provisionally arranged for 22-23 September in Moscow.**



### Roadmaps added Helminths, ASF, FMD etc

The roadmap system on the STAR-IDAZ IRC website continues to grow and develop, with new roadmaps on African swine fever, FMD and Helminths being added. The roadmaps enable the user to visualize the various steps along the pathways to finding a vaccine, developing a disease control strategy or developing a diagnostic technique. The steps are linked to research questions which may represent gaps in the knowledge that need to be filled before we reach the goal of having the necessary disease control tools. The system for adding current research projects onto the roadmaps is now live, and members of the IRC have been invited to register on the website to be able to add in their projects.

Member of the IRC can register on the web site and upload details of their current projects.

See - <https://go.pardot.com/e/732633/-home/23lg79/357328108?h=ZF1pXwrSUX0h1MV4SxbCLzmTI0LmhY4NM-CJOFmdLEs>



### Diagnostics Working Group

STAR-IDAZ IRC Scientific Committee and Executive Committee recommended that a Diagnostics Working Group should be formed to focus on emerging technologies, mainly to: a) List technologies that might evolve and play a role in developing new detection/diagnostic techniques and b) identify and prioritise the most important areas to concentrate on to improve coordination of research.

To take this forward, we are organising a foresight exercise, involving a questionnaire followed by a workshop, to brainstorm ways to improve diagnosis/detection of disease in animals and which technologies currently in existence elsewhere could be used. We are planning to involve experts from different backgrounds (human health, data analysis, molecular biology, sensors, AI etc.) and from different organisations (universities, start-ups etc.).

If you would like to recommend experts from different categories (Animal Health diagnostics (Including Aquatic animal health), Human Health diagnostics, Wildlife Monitoring/ Surveillance, Biochemistry - Biomarkers, Molecular biology/Sequencing technologies, Artificial Intelligence, Data analysis, Engineering (Gadgets - Sensors/Robots), Policy/Regulations), please send names with contact details, and area of expertise to [Alex.Morrow@defra.gov.uk](mailto:Alex.Morrow@defra.gov.uk)



### Luke Dalton

Luke Dalton, who has worked on the STAR-IDAZ, and the IRC since they started has moved from Defra. We would like to thank Luke for his significant contribution, and for being a great colleague and friend.

Luke will still be working in the international animal health scene, as he is taking up a new role in Zoetis, and will be based in Dublin, Ireland. We wish him all the very best in his new role.



### Regional Networks

STAR-IDAZ Regional networks cover Europe, Americas, Asia-Pacific (including Australasia) and Middle-East and Africa and bring together research organisation to collaborate on regional priorities.

With the restrictions on travel due to the Covid-19 pandemic we will be organizing web-based meeting at 6 monthly intervals. The first of these will be the Africa and Middle East Regional Network (AMERN) which is planned for early September 2020.

### Executive Committee Zoom meeting, 11 March

The annual Executive Committee meeting that had been scheduled for 10-11th March at the Kimron Veterinary Institute was postponed, at short notice, due to the Covid-19 pandemic. The IRC members were invited to a video-conference meeting on the 11 March. Members from 18 countries dialled into the meeting that spanned 13 time zones. The main focus of the meeting was the funding status of the research gaps that had been identified from the roadmaps by working groups on helminth parasites, FMD, bovine TB and PRRSV. Before the meeting, partners had been provided with a spreadsheet listing research topics that had been identified as key gaps in knowledge. They were asked to fill in details of current projects being funded and planned work in these areas and their interest in funding them in collaboration with other partners. These were presented to the meeting and in the discussion IRC members were able to indicate where they are putting their research efforts.

The meeting also covered the ERA-Net Co-fund on Animal Health (ICRAD): a platform for a joint funding initiative. It was decided that it would be helpful to have further conference calls between Executive Committee meetings to ensure closer collaboration of the consortium.

A virtual Web-based meeting has been provisionally set for 8 July, 13:00-15:00 CET. The postponed Executive Committee meeting, depending on travel restrictions, has been provisionally set for: 12-15 October, Tel Aviv, combined with a workshop on vector borne diseases on 12th: STAR-IDAZ IRC ExCo meeting 13-14th with a laboratory tour and field trip on 15th.

**Rearranged - March to October**



### Alternatives to antibiotics workshop Bangkok 19 December 2019

We organized a research gap analysis workshop following the 3rd International Symposium, *Alternatives to Antibiotics, Challenges and Solutions in Animal Health and Production*, Bangkok, Thailand, on December 16-18, 2019.

It brought together a number of key contributors to the symposium and invited participants to start off the process of developing a global research agenda for the development of alternatives to antibiotics by exploring experts' views on research priorities. The aim of the workshop was to identify research gaps relating to non-antibiotic-based products and approaches for controlling infections and enhancing livestock productivity while maximising the life of the therapeutics. Some of the workshop participants had been invited to participate electronically in a questionnaire survey before the meeting and this formed the basis for the workshop discussion of the knowledge gaps. The workshop participants were invited to comment on a draft overarching logical framework defining the area focusing on the goal, purpose, outputs and activities. The overall goal is to develop alternatives to antibiotics and to reduce/rationalise the use of medically important antimicrobials in livestock to safeguard their effectiveness, decreasing the level of use and the development of resistance to antibiotics in livestock, while maintaining/enhancing production levels, and controlling the occurrence of disease

A number of possible approaches targeting either pathogen or host or both were considered and the basis by which antibiotics promote growth was agreed as an area that needs investigating. The workshop focused on phage technology, immunomodulators, the microbiome and how it might be manipulated, and how antibiotics promote growth. Vaccines and chemotherapeutics (including phytochemicals and antimicrobial peptides) were not considered in scope, as these are covered by the vaccine and therapeutics development research roadmaps respectively. For each of the key areas discussed, what we are trying to achieve was agreed in outline terms which, for specific products, will be refined later as target product profiles. Working back from these targets the challenges in delivering them were discussed and the possible solution routes and their dependencies were identified. Further rounds of consultation will be conducted electronically with an enlarged Working Group which will meet face-to-face to validate the research agenda(s). Overall, the workshop constituted an important step towards the development of new non-antibiotic-based antimicrobial products and approaches for controlling infections and enhancing productivity, while maximizing the life of existing and new therapeutics through international collaboration and improved focus of the research effort.

### Save the New date The DISCONTTOOLS Symposium

The DISCONTTOOLS Symposium "Filling the knowledge gaps in animal disease control", originally planned on 29 April 2020, has been postponed until 29 April 2021 in Brussels. The symposium will highlight the updating of research gaps for close to 50 animal diseases. Existing registrations for the 2020 Symposium will remain valid for 2021. New registrations will open by the end of this year – [see DISCONTTOOLS website](https://www.defra.gov.uk/consult/discconttools-symposium)

### 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 Sciences 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 CODA-CERVA (Veterinary and Agrochemical Research Centre)
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. OIE-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 Animal Health Laboratory, CSIRO, Australia
27. Lanzhou Veterinary Research Institute (LVRI), China
28. National Veterinary Institute of Sweden (SVA), Sweden

### SIRCAH

SIRCAH, funded by the European Commission through H2020, is run by a partnership including Defra (UK Department for Environment, Food and Rural Affairs), World Organisation for Animal Health (OIE), CAB International, BBSRC (Biotechnology and Biological Sciences Research Council), and AnimalHealthEurope (association representing animal medicines industry in Europe). It provides organisational and communication support to the IRC, facilitates research gap analysis including the provision of literature reviews for working groups, maps funding activities against identified research needs, and helps mobilise resources to address them. The Secretariat also plays an important role in advocacy for the consortium and bringing in new members.

### Further Information

For further information about the IRC please visit [www.star-idaz.net](http://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:  
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SIRCAH  
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