

# Message from IRC Chair



The IRC is now well used to working with the limitations imposed by the global pandemic of Covid-19. The face-to-face meetings have given way to virtual meetings, and these now seem to have become the new normal. This has allowed more frequent meetings and participation by organizations and representatives that might otherwise have difficulty in joining an in-person meeting. This has definitely been shown in the excellent meetings that Regional networks have had. This year we have already had meetings of the Regional Networks for Africa and

Middle East, and the Americas, with one for Asia and Australasia organised for later in June

The IRC has been moving ahead with work on a number of fronts including emerging issues. A number of networks and organizations are working in this space and a recent meeting organised by the IRC brought many of these together to examine opportunities for increasing collaboration.

As well as the Covid-19 pandemic, the world still has to deal with other infectious diseases such as African swine fever, and avian influenza, which still has a zoonotic threat. The IRC contributed to the GARA online workshop 'Current Efforts in Africa Swine Fever Vaccines: A Virtual Seminar and Discussion', which covered the recent developments and challenges in vaccine development, including licensing, regulation, and commercialization. Presentations were from experts from USA, China, Europe and Africa, indicating the global nature of the threat of the disease, and of the research. It was excellent to see that 600 people attended the event live. For influenza, the IRC has commissioned a review of recent research to help establish gaps in knowledge, which will provide a good basis for a workshop of experts to consider the future direction of the research effort.

The survey of the IRC members on the direction of the IRC and the performance of the secretariat gave a very useful look at the work and future development of STAR-IDAZ IRC. The outcome was reassuring that the members continue to value the work of the IRC and the importance of collaboration in international animal health research. I would like to thank Stefano Messori, who has left the SIRCAH project, for his significant contribution to the IRC and wish him the very best as he takes up a new post with the European Commission.

Best wishes,

#### Hong Yin,

Director General, Lanzhou Veterinary Research Institute Chair IRC

## À Scientific Committee

#### Meeting 14 December 2020

The Scientific Committee (SC), that advises the IRC, met by webinar in December 2020 to review the progress of the working groups, particularly those relating to Alternatives to Antibiotics (ATA), Vaccinology and vaccine platforms, Vector Biology, Emerging Issues, African swine fever, and influenza. The SC emphasised the importance of emerging issues, and the need for coordination in the many initiatives that are currently underway. The SC also advised on how to progress new working groups on mycoplasmas, PRDC (porcine respiratory disease complex), and mastitis.

#### Meeting 15 March 2021

At the Scientific Committee meeting held online in March, the progress of the working groups was reviewed, focusing on emerging issues, influenza, ASF, VBD and vaccinology, with a focus on vaccine platforms. There was extensive discussion about the evolving situation regarding influenza H5 and the new strains of ASF virus that appear to be circulating, and the implications for the existing ASF roadmaps.

The Members and IRC thanked Anette
Bøtner (Denmark) and Don Knowles (USA)
for their commitment and contribution to the
Committee since it was established, as
they have decided to step down.
Nominations to fill their roles on the
Scientific Committee have been received
and will be reviewed by the Executive
Committee to select the most suitable
experts.



#### **IRC Executive Committee**

The IRC Executive Committee met twice in the last 6 months, on 19th January and 13th April and updated members on the status of the Network and discussed coordination of activities relating to coronavirus research, emerging issues and influenza research needs. The members considered the progress of the Global Research and Innovation Network for Coronaviruses and the projects that have been funded by the International Collaboration on Research on Animal Disease (ICRAD ERA-Net) research call. A representative from INRAE (Gwenaël Vourc'h, Deputy Director of the animal epidemiology and zoonosis research unit) gave a presentation on the PREZODE (Preventing Zoonotic Diseases Emergence) initiative, launched by INRAE, CIRAD and IRD, with the aim of increasing research and action capacity to prevent emergence of zoonotic diseases. A survey had been circulated, before the meeting, to give members the opportunity to provide feedback on the objectives and performance, and future direction of the IRC and Secretariat. The results of this survey, which were very supportive of the progress made, were presented to the members for comment and discussion at this meeting.



The Executive Committee met on 13th April for the members to be updated on developments relating to work on emerging issues, influenza, ASF, VBD and vaccinology, specifically vaccine platforms. The Committee was also updated on the Global Coronavirus Research and Innovation Network and work regarding UKRI-BBSRC's new Veterinary Vaccinology Strategy.

# Asia & Australasia Regional Network

#### 16 December 2020

The Asia and Australasia Regional Network met online in December 2020 for the first time since the meeting in Beijing in March 2019. Representatives from organisations in China, Japan, Indonesia, Malaysia, and Australia participated. The meeting enabled the participants to share information on their animal health issues and research initiatives, providing the opportunity for collaboration by highlighting the research priorities and projects in each country. Major issues in the region included ASF, FMD, avian influenza, PRRS, Peste des Petits Ruminants (PPR), tick-borne diseases, and antimicrobial resistance (AMR). The meeting also provided the opportunity to update the Network on recent IRC activities, including the 'Pandemic' webinar, ongoing Coronavirus research, vaccine platforms, diagnostics technologies, DISCONTOOLS and funding opportunities.

The next meeting of the Asia and Australasia Regional Network is planned for 22nd June 2021.



#### Influenza virus review

Influenza still represents a significant risk to poultry and livestock, and as a potential zoonotic agent. Previous influenza research gap analyses have taken place in Georgia, USA in 2013; in 2014, OFFLU ran an exercise to update their Influenza Research Agenda and in 2015, the EU Commission looked at the research that had been carried out by projects they had funded on influenza and ran a meeting at EFSA to look at future research needs. The WHO updated their Public Health Influenza Research Agenda in late 2016, early 2017.

To identify what has been achieved by the global research initiative since the previous gap analysis in 2013 and 2014, the STAR-IDAZ IRC has commissioned a review. The review will help identify the available tools and challenges in controlling the disease. The scope of the review will include avian, swine, equine, and other influenza viruses of veterinary interest. As well as looking at published research in recent years the report will survey current projects on



# DISCONTOOLS Symposium announced

The Symposium 'Filling the knowledge gaps in animal disease control' will be on Wednesday 20 October 2021, at 9.00 (CET).

The Symposium is organised by DISCONTOOLS in collaboration with STAR-IDAZ. It will celebrate the update of all DISCONTOOLS disease chapters, cover current initiatives in animal health research in Europe, and discuss future animal health research priorities to deliver on the sustainable development goals. The meeting will be physical (to be held in Brussels) and will be an ideal opportunity to re-connect with the European animal health research community in the post-covid era.

Registrations will open soon. You can leave your name <u>here</u> to receive the programme announcement.



# ERA-NET ICRAD funding call on One Health Approach to Zoonosis

The ERA-NET International Coordination of Research on Infectious Animal Diseases (ICRAD) will be launching the second funding call on **One Health Approach to Zoonoses Research and Innovation** in October 2021. The overall objective of this call will be to increase

influenza. The review will generate a report, which will be considered at a workshop of experts which is planned for Ames, Iowa, USA, later in the year.

# Africa & Middle East Regional Network (AMERN)

#### 22 March 2021

The Africa and Middle East Regional Network met virtually in March, with representatives from Algeria, Iran, Israel, Kenya, Nigeria, Senegal, South Africa, and Uganda as well as ILRI, AU-IBAR and Zoetis being represented. The Network was updated on IRC activities, including developments and activities on influenza, ASF, VBD, vaccine platform technologies and emerging issues. Country reports focused on the One Health research priorities and challenges, which included research projects on SARS-CoV-2, zoonotic diseases, antimicrobial resistance (AMR), and vectorborne diseases (VBD). Additional priorities included FMD, avian influenza, ASF, PRR, Rift Valley Fever, and brucellosis.

#### **GARA** webinar

#### 06 May 2021

The Global African Swine Fever
Research Alliance (GARA) aims to
establish and sustain global research
partnerships that will generate scientific
knowledge and tools to contribute to the
successful prevention, control, and where
feasible eradication of African Swine
Fever (ASF). In May, GARA organised
and ran a webinar titled 'Current Efforts
in Africa Swine Fever Vaccines: A Virtual
Seminar and Discussion'. The webinar
involved presentations from experts in
the US, Europe, Africa, and China, which
discussed the recent developments and
challenges in ASF vaccines, including

preparedness to (re)-emerging zoonotic diseases and the ability to respond to zoonotic threats as well as contribute to improved animal and public health.

This will be done through; understanding (re)-emergence of pathogens with zoonotic potential, understanding animal host-pathogen interactions including the immune response, and developing detection and prevention platforms.

More information will follow in the coming months, please visit <a href="https://www.icrad.eu/">https://www.icrad.eu/</a>

# **Emerging Issues**

Following recommendations from the Executive Committee, to form an Emerging Issues Working Group to coordinate responses to emerging diseases and other animal health issues, a mapping exercise was carried out to identify the different initiatives, networks and projects working in this area. This was followed by a workshop bringing together representatives from these networks and projects working in this area to share information on their activities and to discuss how the IRC could support and facilitate more cooperation and coordination in this space. The meeting was held on 1st June and provided a platform for some of the larger initiatives in this area to describe their activities and potential areas for collaboration and information sharing. The successful first meeting of these groups provided the basis for building a Working Group to take forward future collaboration on emerging issues.

licensing, regulation, and commercialization. Nearly 900 people registered for the webinar with 600 people attending the event live.

GARA's website is available <u>here</u>, where the presentations and information about further webinars will be posted.

# European Collaborative Working Group on European Animal Health & Welfare Research (CWG AHW)

On 26th April, the EU Standing Committee on Agricultural Research (SCAR) Collaborative Working Group (CWG) on Animal Health and Welfare Research met virtually. This meeting included updates on ongoing projects and initiatives, as well as on SCAR, ICRAD ERA-NET and the DISARM project. There was also an update and discussion on the proposals being developed for a Partnership Animal Health and Welfare (PAHW) under Horizon Europe.



### **Vector borne diseases**

The emphasis in this area is on developing a generic roadmap for vector transmission control, develop lead

# platform technologies)

Following the Vaccinology focus group meeting held in October 2020, and chaired by Vish Nene (ILRI), the vaccinology working group is moving forward with a literature review of the current status and attributes of various vaccine platforms. The review will be carried out by Gary Entrican from the Scientific Committee, along with Mike Francis from BioVacc. There will then be a follow up meeting with key experts working on the various technologies, along with representatives from EVI, ZAPI, CEPI and IVVN, to identify knowledge gaps that need to be addressed in order to move these platforms forward. The literature review will critically review the current literature on Vaccine Platform Technologies with direct relevance to the goals of the STAR-IDAZ IRC and to outline the different platform technologies and discuss these in relation to the different challenges for animal vaccinology (e.g. DIVA, single-shot, cost, delivery route, duration of immunity, mass vaccination). The review will also highlight the importance of One Health and consider what has been learnt from recent zoonoses and the complex interface of disease prevention and control in humans, livestock, companion animals and wildlife.



SIRCAH News

summaries, then identify and prioritise the research gaps. Alex Morrow and Bruno Goddeeris have developed the lead summaries, along with input from Isabel Miranda Santos, based on the major challenges, the possible solution routes, and the depending factors. The lead summaries will form the basis of discussion for the WG. A list of experts has been identified to contact about being involved in the WG. This group will discuss, add to, and edit the lead summaries and roadmaps.

The vector transmission and control roadmap does not focus on the diseases themselves, as the diseases have their own roadmaps. An important aspect the roadmap considers is the interaction between the pathogens and the vector, including considering why one species of a vector could transmit the disease while another species does not.



Vaccinology survey

BBSRC, on behalf of the veterinary vaccinology research funders and programme owners, are consulting the research community (including academic, funders, industrial and other researchers) on the current veterinary vaccinology research and innovation needs, as well as the future perspectives. This survey has been endorsed by SIRCAH and the consultation will help inform future veterinary vaccinology strategy.

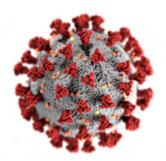
Stefano Messori of the OIE, who has been a member of the Secretariat since 2016, is leaving this May to take up a position with the European Commission. We would like to thank Stefano for his major contribution to the IRC, including the annual State of the Art reports, and for taking forward the work on ASF, FMD and AMR, and for being a great colleague and friend.

We wish Stefano the very best in his new position.

IRC objectives and deliverables

A review of the IRC objectives and deliverables was carried out by a questionnaire survey shared with IRC members, with the results reported to the IRC Executive Committee. The feedback through the questionnaire showed widespread support and satisfaction with the achievements and direction of the IRC, and provided valuable pointers on how the objectives can be delivered. In particular the importance of encouraging researchers to make their data open and to publish their research papers in open access publications. The importance of planning joint or coordinated activities between IRC members was emphasised, as well as encouraging members to acknowledge that their activities are aligned with the objectives of the STAR-IDAZ IRC. The results of the survey and the ExCo discussion will help determine the direction of the IRC in future. The full report will be available on the STAR-IDAZ website.

If interested in completing the survey please follow the link <u>here</u>.



#### Coronavirus network

The BBSRC-Defra global coronavirus research and innovation network will draw together the major global research and industry players working on veterinary and human coronaviruses to compare, contrast and advance the understanding of coronaviruses. The network aims to embrace a One Health approach to understanding coronaviruses, to facilitate research collaborations, and serve as a communication gateway for the global coronaviruses research community. As a result, it is expected that the network will stimulate increased integration of humanveterinary coronaviruses research and innovation capacity and capability, in a One health approach, as well as deepening the understanding of coronaviruses and strengthening understanding of ecologies at the animalhuman-environment interface. It is planned that it will work with STAR-IDAZ IRC and be aligned to our objectives. The network will be funded for four years with a grant of £500 000.

The Network director will be based in the UK, and will work with multiple international partners. Full details are available here.



# **Americas Regional Network**

#### 17 May 2021

The Americas Regional Network met virtually on the 17th May, with representatives from Mexico, Argentina, Canada, Guadeloupe, Trinidad and Tobago, the US and CaribVET. The meeting offered the opportunity for participants to provide a brief country report on their research priorities and initiatives, with a focus on One Health research priorities in the region, particularly zoonoses, AMR, vector-borne diseases, human-livestock-wildlife interface. There was a presentation on the PREZODE initiative and an update on IRC research priorities and activities.

The Global Research Collaboration for Infectious Disease Preparedness (GloPID-R) is an alliance that brings together research funding organizations around the world to facilitate effective and rapid research of new or re-emerging infectious disease with epidemic and pandemic potential. New outbreaks require the rapid development of diagnostics, vaccines and therapeutics as demonstrated by the Coid-19 pandemic.

STAR-IDAZ IRC met with GloPID-R in May 2021 to explore ways of collaborating and support each other in their respective work, including discussing starting a collaborative One Health working group. The next steps will be to develop ToR for the WG.

#### **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 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. 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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