STAR-IDAZ International Research Consortium on Animal Health

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Message from IRC Chair

Plan

The IRC continues to do its work despite the limitations imposed by the global pandemic of COVID-19, which has had a devastating effect on lives, livelihoods, and society. In the absence of face-to-face meetings, we have had to find other ways of conducting our business and carrying out our work, and in some ways the current situation has been challenging. The hopeful signs are that new vaccines will be available within the new year and people will be protected from the virus, and workshops and in-person meetings will be possible again.

One of the effects of the pandemic is to bring to the forefront the importance of research in preparing and controlling diseases, and that a range of disciplines are involved – immunology, vaccinology, virology, diagnostics and therapeutics – in generating solutions. Also, important is the health agenda, involving veterinary with human medicine, which was emphasised in the excellent webinar workshop 'PANDEMIC: A one health view of emerging infectious diseases. What veterinary sciences can contribute.' The IRC Secretariat and Steering Group have made a public appreciation of the importance of research into vaccines and of collaboration and cooperation can speed up their delivery. The focus group that the IRC organised in October, on the potential of Foot-and-Mouth Disease vaccines, and the development of new vaccine technologies, and considered how they could be used to better control disease.

It was pleasing to see the publication of the roadmaps paper in Transboundary and emerging Diseases, which brings our work to the attention of the global scientific community.

It was also good to see the regional networks for Africa & Middle East, and for the American had virtual meetings, and that one for Asia and Pacific will be held on the 18th December.

I would also like to give a warm welcome to Maddy Newman of Defra, who has joined the SRCAH team, and also congratulate Alex on his retirement from Defra (I am certain that he will have this will be continuing his work in contributing the project.

I send my best wishes to colleagues on the International Research Consortium and hope that you and your families stay well. I am pro to consult the roadmaps on our STAR-IDAZ IRC website, and ensure that your voices are heard in the development of the research agenda. I look forward to once again in person and drink forward our important agenda to control animal and zoonotic diseases.

Best wishes

Wendy Brown
Director General, Lanzhou Veterinary Research Institute
Chair IRC

"PANDEMIC! A one health view of emerging infectious diseases. What veterinary sciences can contribute." Workshop 22 June 2020

A global interactive webinar was jointly organised with the International Research Consortium on Animal Health, Welfare Research (IWRC) and the Global Strategic Alliance for the Coordination of Research in the Infectious Diseases of Animals and Zoonoses and its associated International Research Consortium (STAR-IDAZ IRC). The speakers were Professor Annamaria Passantino, DISCONTOLS, IZSA-NAT, IUVAS, Over-Health EJP and APRE, and aimed to investigate the contribution of the veterinary sciences in preventing future animal and zoonotic pandemics. The moderator, was introduced by Stefano Manzocchi, of SIRCAH, had five speakers, Professor Dominic Wathes, Dr Jeremy Cristopher Author Brian Wainhouse and Alex Morrison followed by a roundtable discussion which involved additionally invited speakers Virgil Stegeman, Utrecht University, Jean Charles Cachin, European Commission, Jeremy Farrar, Wellcome Trust, Jeremy Farrar, Global Health Lancet Tribunal, Trinity College Dublin, Ireland.

The webinar presented the lessons learnt from the COVID-19 pandemic. It discussed how research on animal infectious diseases can contribute to the prevention of future human pandemics. It also considered how the Strategic Research Agenda on animal health can be improved to respond to emerging animal diseases, and how it could be better aligned with the human research agenda. It also considered the future agenda and summarizing the current knowledge and (2) a round table discussion with invited speakers and participants to participate in the round table discussion to responding to an interactive web tool to specific questions. The goal, were attended by 500 participants from academic and public research institutions, industry, veterinary services and other stakeholders from 50 countries. The report of the meeting, comprehensive the many outcomes, considering both inputs provided by the experts and the results of the interactive discussion session, as well as from the audience. It outlines identified research needs and policy recommendations for the prevention and control of emerging diseases. It also sets out the way ahead and new directions for Strategic Research Agendas on animal health and promote collaboration between the different actors.

The workshop was recorded and can be viewed here.

The full report of the meeting can be seen here.

Image IUVAS

Scientific Committee meeting 22-23 September

The Scientific Committee met by webinar on the 22 and 23 September, replacing the planned meeting in Morocco, which had been cancelled due to travel restrictions. The agenda was full, covering the progress of the roadmaps activities, progress of the existing working groups and agree plans for moving them forward. This included an update on the STAR-IDAZ Global Vaccine Development Initiative Discussion on the workshop and an extended discussion on emerging issues and the various initiatives in this area. It was agreed that the Consortium could take the possibility of combining the IRC's Animal Health Roadmap with the Human Health Roadmap, to produce a unified "Towards an International Alliance to Avoid the Next Pandemic". From here, it was then proposed that a small working group be established to work on the initiative to develop a common approach to address emerging issues. The committee also discussed the Consortium's future strategic direction, which is now widely and ably established, and it more likely to be able to up by the research funders to the research gaps can be filled. Several new working groups were raised to be moved forward. In Mycoplasmosis, Rift Valley Fever and Brucellosis. Discussions on the Foot-and-Mouth Disease and its Metabolic DNA will review these and bring proposals for discussion at the next meeting.

It was agreed, that the Executive Committee, the Scientific Committee will hold two hour webinars every 3 months, as the current travel restrictions mainly have to these meetings.

The next meeting will be held as a webinar 14th December.

Roadmap developments

The STAR-IDAZ website currently has the generic roadmaps on: (1) Development of disease control strategies, (2) Research on Diagnostics, (3) Development of therapeutics, and (4) Development of candidate vaccines. There are also roadmaps for the specific diseases: Foot-and-Mouth Disease, African Swine Fever, Brucellosis, Porcine reproductive and respiratory syndrome, Bovine TB, and Henipah infections.

There are currently over 200 research questions added to the roadmap system, and researchers and programme owners can register and include their projects.

If you would like further information on adding information on current projects please contact Robert Taylor (SRCAH) r.taylor@cabi.org

SIRCAH news

We welcome a new member of the SIRCAH team, Maddy Newman (Defra) (Maddy.Newman@defra.gov.uk) who is taking the place of Lyle Dalton who left to take up a position in the Defra Science Strategy team. Maddy has since October and has a background in biological science and sustainable development. She joins us from the Department for Transport where she worked in strategic development.

Alex Morrow officially retires from Defra at the end of November 2020, and will continue contributing the SIRCAH project and can be contacted by his new e-mail a.morrow@cabi.org

Diagnostics workshop

Plans are being developed for an exercise to evaluate the current capacity and capability of the sector to improve detection and diagnosis. This will involve a questionnaire followed by a workshop focused on (i) the current capacity and capability, (ii) the current application, (iii) identification of technologies supporting the targeted technology applications and (iv) the R&D required to fill the gaps identified. The Scientific Committee, Executive and Scientific Committee were consulted seeking for names and contact details of suitable people with different expertise to take part in the exercise. Approximately 40 people have been nominated to participate.

Africa & Middle East Research Network (AMERN)

The Africa and Middle East Regional Network met virtually in September for the first time since the meeting in Kenya, 2017. Representatives from organisations in Algeria, Egypt, Ethiopia, Kenya, Morocco, Nigeria, Tanzania and Israel as well as EU, and AU-IBAR and USDA were represented. The Network was updated on IRC activities, including the STAR-IDAZ Global Vaccine Development Initiative, the Roadmaps Initiative and a potential Coronavirus common research call. Country reports focussed on the impacts of COVID-19 on research and how it demonstrated the broad range of activities going on across the region. These included research projects on ASF, COVID-19, FMD and AMR. Over 5.8 also reported that they had launched a One Health Association of Ethiopia (OHAE) and Kenya (OHAK) in 2019 and last year.

From South Africa, Dr Mokotela reported that a new one health network (https://sa-ganh.com/?SESSIONID=ck1l02ffqq0ldl8ldl0ll0ll0l7-1600141) (https://www.facebook.com/groups/saganh/?fbclid=IwAR0FEEKwdzZLZ8hhi_2ZQ-Ldxc) had been created.

The Members and IRC also thanked Gerrit Sharam for serving on Chair of the Network for the past three years and welcomed Mustapha Dumburia, Algeria, as the new Chair.

Roadmap paper

A paper describing the creation and function of the generic roadmaps was published in the prestigious journal – Transboundary and Emerging Diseases in September. The paper, "The STAR-IDAZ Roadmaps: Tools for the Control of Livestock Diseases", was the result of a workshop the IRC Scientific Committee and has been actively revised and improved since then. It was open access and the accepted through the FOA fee below.

Eintraut, C., Chenier, J., Dalton, J., Meeusen, S., Sharma, S., Taylor, R., Monne, A. Coordination of research roadmaps for the strategic coordination of global research for animal health. Transboundary and Emerging Diseases. Transboundary and Emerging Diseases. First published: 08 September 2020 https://onlinelibrary.wiley.com/doi/10.1111/tbed.13812?fbclid=IwAR0MBEEJ-mAQxu-Wu4ZEDVQ0ovuAxRVV6BXoxuCLBHCJ_Ktw_Ccw_ZJ0

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EU-Funded Projects contributing to the objectives of the IRC

The following three major EU-funded projects follow the objectives of the roadmaps and activities of STAR-IDAZ IRC. They each have a member of SIRCAH (Alex Morrow or Stefano Manzocchi) on their advisory boards.

1. DEFEND

DEFEND is a consortium of scientific partners working to control two diseases emerging into Europe and spreading within it, namely African swine fever (ASF) and lumpy skin disease virus (LSD). STAR-IDAZ is represented on the advisory board by Alex Morrow. The project underwent its first official review at the 18 month point, this involved a detailed interim report to the European Commission, and a subsequent 2 day review. The annual consortium meeting was scheduled for the 14th and 15th September and 16th September, already. Because of the COVID-19 pandemic, it was decided to convert this meeting into a virtual meeting. The consortium is led by Pirbright, the Pirbright Institute, UK, and co-lead by Dr Kris De Clercq from Sciensano, Belgium.

DEFEND website can be accessed here.

Their most recent newsletter is available here.

2. MAVEN

The EU-funded VACDIVA project aims to provide three vaccine platforms for the control of three major zoonotic pigs that are leading to significant economic losses and have actively involved. The project is coordinated by Prof. Dr. Dr. Anne Balkema-Buschmann, Friedrich-Loeffler-Institut, Germany. The project aimed to "develop and test three vaccine platforms that are highly adaptable and efficient in a portfolio of services to help animal health authorities control and eradicate the disease. Stefano Manzocchi of SIRCAH is on the advisory board of the project.

The VACDIVA full consortium meeting was held online on 10 November. The meeting was initially planned to be held in the Netherlands, but it was held online, organised by Wageningen Bioveterinary Research. Over 70 participants from the different work packages, Advisory board members and EC representatives were able to attend the meeting. The meeting was very productive with good results. The coordinator, Janet Bennett Sciensano, opened the meeting, after which the Work Package leaders reported on the results obtained since the launch of VACDIVA and presented the roadmap for the next three years.

Finally, the event ended with the General Assembly meeting of partners held the opportunity to decide (through a polling questionnaire) on changes to the Advisory Board Composition, Background materials to be added into the Knowledge Management Portal, and updates on the Data Management Plan.

Further details can be found here.

DISCONTOOLS

DISCONTOOLS have published their Disease Sheets in a book entitled: Disease Control Tools: Gaps and Needs for Infectious Disease Control in Animals'. It comprises 52 sections of disease control tools available or not available and those that are needed, and is hard improving to serve as a roadmap.

Originally, it was planned to distribute the Disease Sheets during the DISCONTOOLS symposium in Spring 2020 in Brussels which unfortunately was postponed because of COVID-19. It was decided that dissemination of the book would be better if it was made available, so the book was produced and is available for download.

In recent years, many new medicines have been marketed in Europe or DISCONTOOLS 5 been pass and diseases. However, even more gaps still remain. It is of concern that many of the gaps are for important diseases causing losses in animal health, resulting in reduced R&D investment from 10% to 8% of turnover. Also, public sector spending on animal health research has been reduced. Animal health had to compete with many topics and although it is intrinsically linked to many of the priorities of the Sustainable Development Goals, including antimicrobial resistance, animal welfare, prevention and control of pandemics, food security decision makers need to match the challenges with sufficient funds.

DISCONTOOLS a book is available here.

DISCONTOOLS website is available here.

COMBAR – Combating Anthelmintic Resistance in Ruminants

COMBAR, together with the Livestock Helminth Research Network, has published a roadmap to tackle one of the top priority research needs in combating helminths and reducing anthelmintic resistance. The document tries to provide a roadmap for the control of the helminths. The main areas identified are improving diagnostic tools, improving therapeutics, developing vaccines for helminths and improving sustainable control practices. The activities are informed by an initial assessment of the economic burden of major helminth infections in Europe, published in Preventive Veterinary Medicine. (Charlier, J. et al.) July 2020. Preventive Veterinary Medicine, 180, 104999. https://doi.org/10.1016/j.prevetmed.2020.104999.

The next annual COMBAR meeting will take place virtually on 9-10 December under the theme: "Interactions between ruminants. Perspectives from research to practice". Anyone interested in this meeting should contact the deadline for registration is 2 December.

Further information via the link below.

Research priorities on helminths and anthelmintic resistance in ruminants.

Publication on economic burden of helminth infections and AR in Europe available here.

Information on next COMBAR IRC meetings available here.

Further information can be found here.

IRC Executive Committee meeting 7 July 2020

Following the first IRC Virtual meeting in June, the Executive Committee meeting was organised to update members on the current status and activities of the Network and to discuss coordination of research activities and plans for the future development of the Consortium. The update on activities included reports on the STAR-IDAZ Roadmaps, including the outcomes of the paper on the roadmaps to the Transboundary and Emerging Diseases Journal, the updates to the roadmap system. There was an update on the COAGS (FAO-led Global Strategy) and the proposed Coordination Hub, the proposed Vaccine Initiative, and emerging infectious animal diseases and the Foot-and-Mouth Disease vaccine platforms, the proposed joint workshop with the Human Health Roadmap, and a closing date of the 5th October for the submission of research into IRC members relating to their research on coronavirus. A common research call was prepared and circulated to the Regional Networks. A Coronavirus spreadsheet was to be updated and reviewed.

Other issues covered included the use of the Consortium's website, and the Slack channel. It was agreed that, with the COVID-19 pandemic, there was a need for the Executive Committee and the Consortium IRC, should bring together experts to see how best to address the issue, and how other world-wide organisations were tasked – this include a questionnaire and workshop focussed on defining the requirements of the legal technology platform, and the technical requirements supporting the legal technology applications, and the R&D required to deliver the desired technologies.

A further Webinar meeting was scheduled for 13 October.

ExCo meeting 13 October 2020

The meeting reviewed the activities of the IRC, its objectives of coordinating research and capacity building, the Executive Committee, Scientific Committee and Steering Committee, and the regional meeting objectives. A survey of partners would be carried out as part of the review.

The STAR-IDAZ IRC vaccine platform and the Foot-and-Mouth Disease vaccine platform, and the Foot-and-Mouth Disease Metabolic DNA, and the Brucellosis, and Mycoplasmosis, and Rift Valley Fever