



STAR-IDAZ
International Research
Consortium on Animal Health

STAR-IDAZ Update

Alex Morrow



STAR-IDAZ Objectives

The overall aim of STAR-IDAZ is to improve coordination of research activities on the major infectious diseases of livestock and zoonoses so as to hasten the delivery of improved control methods.

- To strengthen the linkages between and reduce the duplication of global research effort on high priority infectious diseases of animals (including zoonoses), maximise the efficient use of expertise and resources and accelerate coordinated development of control methods.

International Research Consortium on Animal Health - STAR-IDAZ IRC



Higher level of commitment for coordinated research activities through the STAR-IDAZ International Research Consortium for Animal Health (IRC)

- Agree minimum level of investment in research on priorities over a five year period (threshold \$US 10 million; group funding commitment possible)
- Agree delivery targets
- Agree to coordinate/align funding to deliver these targets (members' own funding procedures, unless agreed otherwise; governance document & policy guidelines)
- Agree to share research results (as much as necessary, without jeopardising IPR)
- 25 Partners from 16 countries including one international research organisation (ILRI), one charity (BMGF), the European Commission and three industry have signed the Letter of Intent to participate.
- Total combined five-year research budget of \$US 2.5+ billion

IRC Objectives and Deliverables



The overall objective of STAR-IDAZ IRC is to coordinate research at international level to contribute to new and improved animal health strategies for at least 30 priority diseases/infections/issues

The deliverables include:

- Candidate vaccines
- Diagnostics
- Therapeutics
- Other animal health products and procedures
- Key scientific information/tools to support risk analysis and disease control

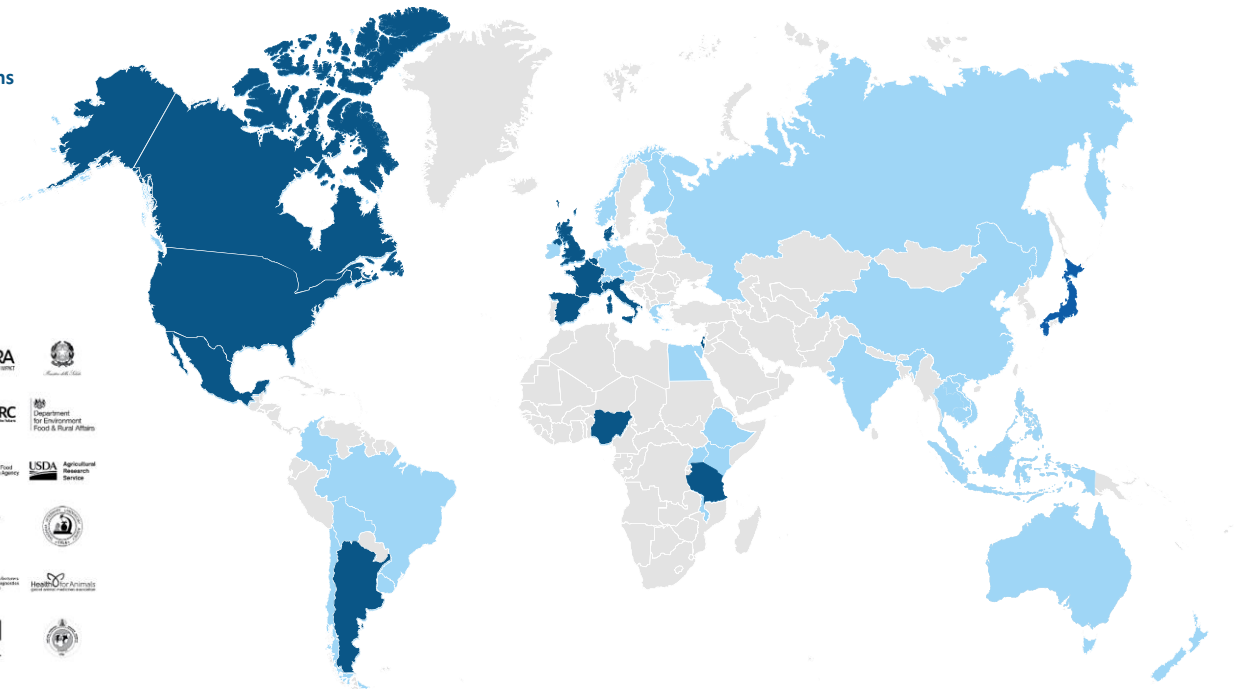


STAR-IDAZ
International Research
Consortium on Animal Health



STAR-IDAZ Global Network

25 Partner
organizations
16 member
countries
50 associated
countries
\$2.5B Research
investment

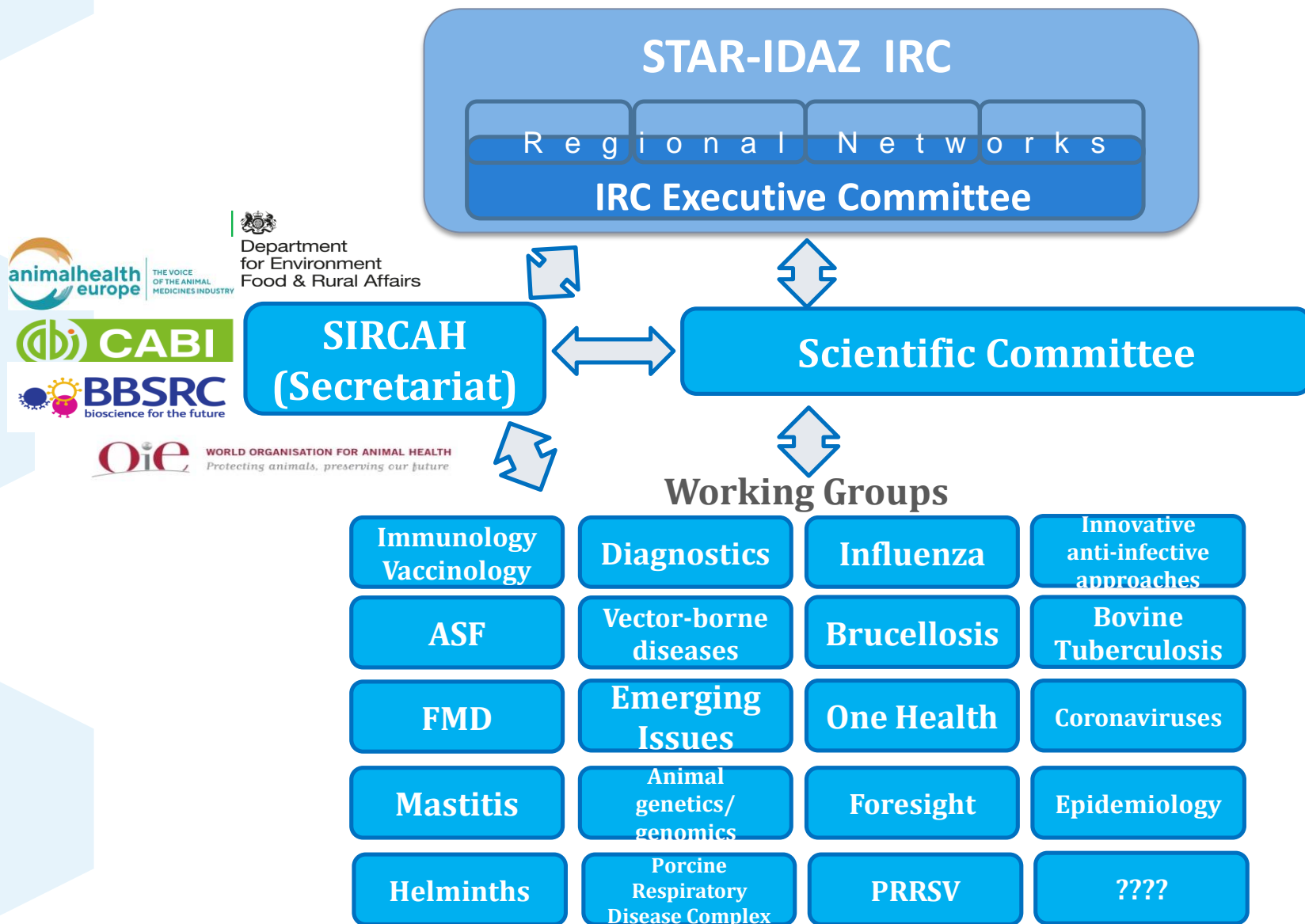


IRC ExC Partners



1. Danish National Veterinary Institute (DTU Vet), Denmark
2. National Institute of Agricultural Research (INRA), France
3. The French Agency for Food, Environmental and Occupational Health & Safety (ANSES), France
4. Ministry of Health, Italy
5. Ministry of Economic Affairs (MinEZ), 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), US
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. World Organisation for Animal Health (OIE)
19. Zoetis
20. Bill and Melinda Gates Foundation (BMGF)
21. HealthforAnimals (Global Animal Medicines Association)
22. Diagnostics for Animals (Veterinary Diagnostics Manufacturers) (formerly EMVD)
- 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)

Governance Structure



Secretariat for the International Research Consortium on Animal Health (SIRCAH)



- **Establish working groups** for priority diseases and crosscutting issues - assisting with the organisation of meetings, including helping to pull together the **gap analysis** and **mapping funding activities** against identified research needs.
- **Produce and publish gap analysis and roadmap reports from working groups.**
- Advise the Scientific Committee (SC) and ExC on **how research programmes could be aligned** and make funding recommendations based on the gap analysis, roadmap reports and current funding activities.
- **Maps funding activities** against identified research needs, and **helps mobilise resources** to address them
- Facilitating **knowledge transfer** to bring innovation to the market

Scientific Committee



Don Knowles

Dieter Schillinger

Gary Entrican

Martin Beer

Edwin Claerebout

Wim van der Poel

Denis Kolbasov

Stéphan Zientara

Bruno Goddeeris

Clara María Marín Alcalá

Gustavo Zielinski

Glen Gifford

Jeremy Salt

Anette Bøtner

Irit Davidson

Sergio Rosati

SC representation in WGs



Working Group	SC Member	Deputy
Coronaviruses	Don Knowles	
One Health	Dieter Schillinger	
Vaccinology	Gary Entrican	Bruno Goddeeris
Influenza	Martin Beer	
Helminths	Edwin Claerebout	
Emerging issues	Wim van der Poel	
ASF	Denis Kolbasov	Anette Bøtner
FMD	Stéphan Zientara	Jeremy Salt
VBD	Bruno Goddeeris	Don Knowles
Brucellosis	Clara María Marín Alcalá	Gustavo Zielinski
PRDC	Gustavo Zielinski	
Mastitis	Gustavo Zielinski	
bTB	Glen Gifford	
Pox viruses	Jeremy Salt	
PRRS	Anette Bøtner	
Diagnostics	Irit Davidson	Sergio Rosati
Innovative anti-infective approaches including ATA		
Foresight		



Scientific Committee Meetings

Vienna, August 2018

- Agreed a system for the renewal of the Scientific Committee Membership
- Discussed ways to measure and increase impact of roadmaps
- Discussed priorities from Africa and Middle East Region and decided on mycoplasmas to recommend to ExC as new topic
- Agreed next steps for working groups

London, January 2019

- Agreed to cut testing from therapeutics roadmaps and focus on research
- Agreed to develop roadmap for animal genetics
- Discussed how to approach issue of standardised challenge models and agreed that the IRC should develop guidelines only
- Agreed to focus VBD working group on the (arthropod) vector rather than diseases

Recommendations to ExC from SC meetings August 2018 and January 2019



- IRC to contribute to international standards for vaccine efficacy research.
- Modify draft SC rotation policy to say that when someone is standing down from the SC the SC will nominate suitable alternatives, taking into account the discipline covered by the person stepping down, and present the name(s) to the ExC for their decision.
- Mycoplasmas including CBPP/CCPP be added to the list of IRC priority topics and taken forward as a Working Group.

Beijing meetings March '19



Reception – Monday 11th March

Workshop – Tuesday 12th March

- EU-China collaboration on pig disease research with a particular focus on African Swine Fever

STAR-IDAZ IRC EC Meeting Wednesday 13th and Thursday 14th March

AM visited the Harbin, Shanghai and Lanzhou Veterinary Research Institutes

Beijing meetings March '19



Reception (Monday 11th):

Welcome address - Chris Wood (Deputy Head of Delegation)

Importance of pig production and trade to China and the EU - Nicolas Dandois (EU Delegation)

EU research programmes and the importance of collaboration in addressing our common challenges (including emergence of diseases in animal production) - Jean Charles Cavitte (EC-DG AGRI)

STAR-IDAZ IRC as a platform for coordinating animal disease research globally – Alex Morrow

EU-China collaboration on pig disease research with a particular focus on African Swine Fever



Session 1

Welcome

EU Research programmes on Animal health and collaboration with China

- Collaboration in the area of Food Agriculture and Biotechnology -Nicolas Dandois
- Animal Health Research programmes and opportunities for collaboration - Jean-Charles Cavitte

CAAS and Chinese Ministry of Science Research programmes - Hong Yin

HealthyLivestock – EU-China Collaborative programme -Jan Vaarten and Shuming Yang

New technologies – Gene editing and Classical Swine Fever - Hongsheng Ouyang

Session 2

Current Situation and Control Strategy of African Swine Fever in China - Xiaodong Wu

Overview of ASF situation in Europe - Gudrun Gallhoff

Research needs on ASF identified by the Global ASF Research Alliance (GARA) - Sandra Blome and Cova Alonso

ASF Research Roadmaps on Vaccine Development and Epidemiology and Disease Control strategies - Stefano Messori

EU-China collaboration on pig disease research with a particular focus on African Swine Fever



Session 3

COST Action ASF-STOP – Dolores Gavier-Widén

Discovery of AFSV and Epidemiological analysis - Rongliang Hur

Lessons learned from recent animal trials - Sandra Blome

Risk of African swine fever transmission in veterinary biologics - Qizu Zhaor

Virus host interactions in support of vaccine development - Cova Alonso

Session 4

Development of diagnostic tools of ASF Potential vector ticks - Zhijie Liu

DEFEND Project with an overview of ASF research at the Pirbright Institute - Pip Beard

Development of vaccine against ASF - Huaji Qiu

Concluding remarks

<https://www.star-idaz.net/reports/resources>



STAR-IDAZ IRC EC meeting Beijing

Welcome and introductions

Minutes of the last STAR-IDAZ meeting, held 14-15 March 2018 in Madrid

Current Status of STAR-IDAZ and IRC

- Update on activities
- IRC Governance Structure and Modus Operandi, and STAR-IDAZ MoU
- **OIE General Session event**

Secretariat for the International Research Consortium on Animal Health (SIRCAH)

- Deliverables
- Periodic review

Report from the IRC Scientific Committee meetings

- SC recommendations to the ExC

STAR-IDAZ IRC links to DISCONTTOOLS

ERA-Net Co-fund on Animal Health: a platform for a joint funding initiative

Lead Roadmaps

- Candidate vaccine development
- Diagnostic test development
- Therapeutics
- Epidemiology and development of disease control strategies
- Others

Website and data capture

Porcine Reproductive and Respiratory Syndrome

- Research gaps and roadmaps

Followed by other priority topics

Working Groups



- **Porcine Reproductive and Respiratory Syndrome**
- Influenza
- **Bovine tuberculosis**
- **Foot and Mouth Disease**
- **Brucellosis**
- **African Swine Fever**
- **Vector-borne diseases**
- **Corona viruses**
- Mastitis
- **Helminths including anthelmintic resistance**
- Porcine respiratory disease
- Pox virus infections
- Others to come

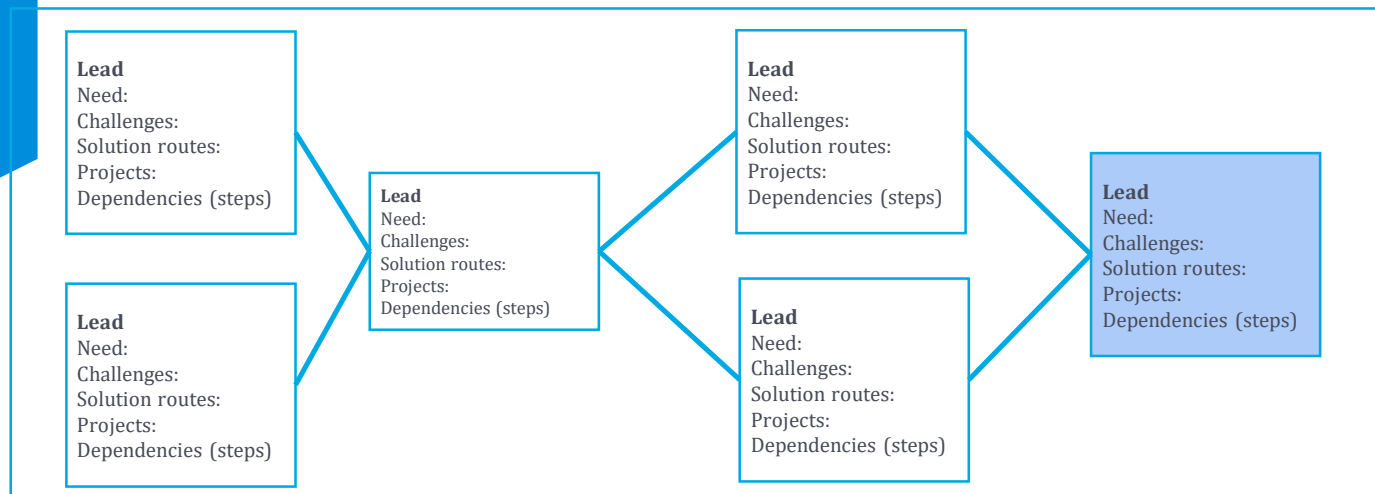
- **Vaccinology**
- Emerging issues
- One Health (including food-borne pathogens and AMR)
- Animal genetics/genomics for animal health
- Epidemiology
- Diagnostics (tools and technologies)
- AMR and the Development of Innovative Alternatives to Antibiotics (Integrated pathogen control for the reduction of resistance/ Innovative anti-infective approaches, including alternatives to antimicrobials)



innovation generator
project summaries

Lead Roadmap

Roadmap can be plotted by showing all the leads that are dependencies



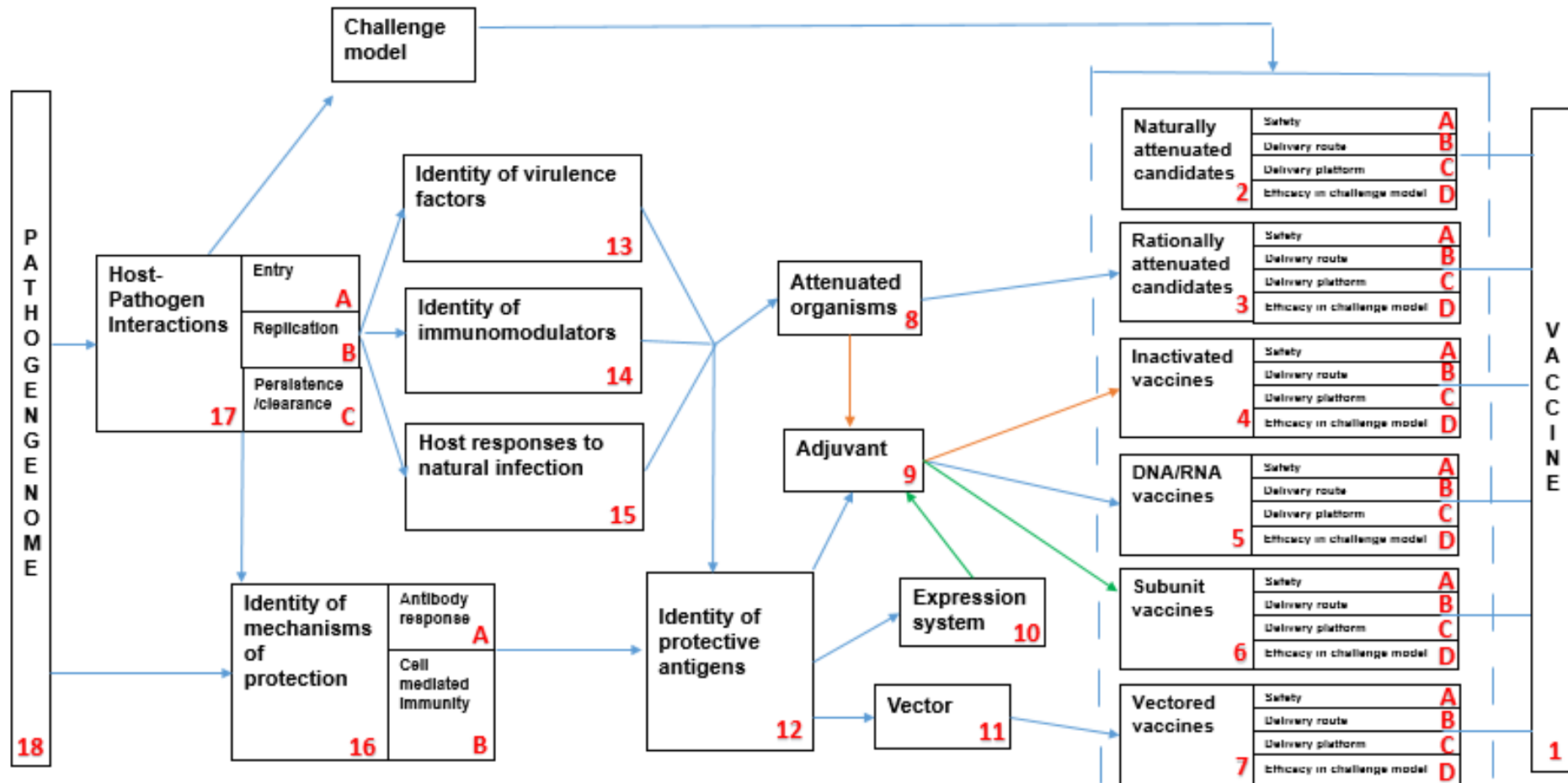
Making innovation happen

Roadmaps



- Way of visualizing a complex problem showing the gaps and helping to decide what projects need to be developed to create workable solutions.
- Available online providing a valuable tool for the research community including funders.
- The interactive vaccine candidate roadmaps will be launched shortly
 - Diagnostics, therapeutics and epidemiology and control to follow
- Current research projects from IRC partners are being mapped onto the roadmaps and linked to the challenges associated with each lead allowing users to assess the extent to which the challenges are being addressed and identifying areas requiring further attention.

Research Roadmap for Vaccine Development



Lead Summaries



Title:

Research Question

What are we trying to achieve and why? What is the problem we are trying to solve?

Challenge(s)

What are the scientific and technological challenges (knowledge gaps needing to be addressed)?

Solution Routes

What approaches could/should be taken to address the research question?

Dependencies

What else needs to be done before we can solve this need?

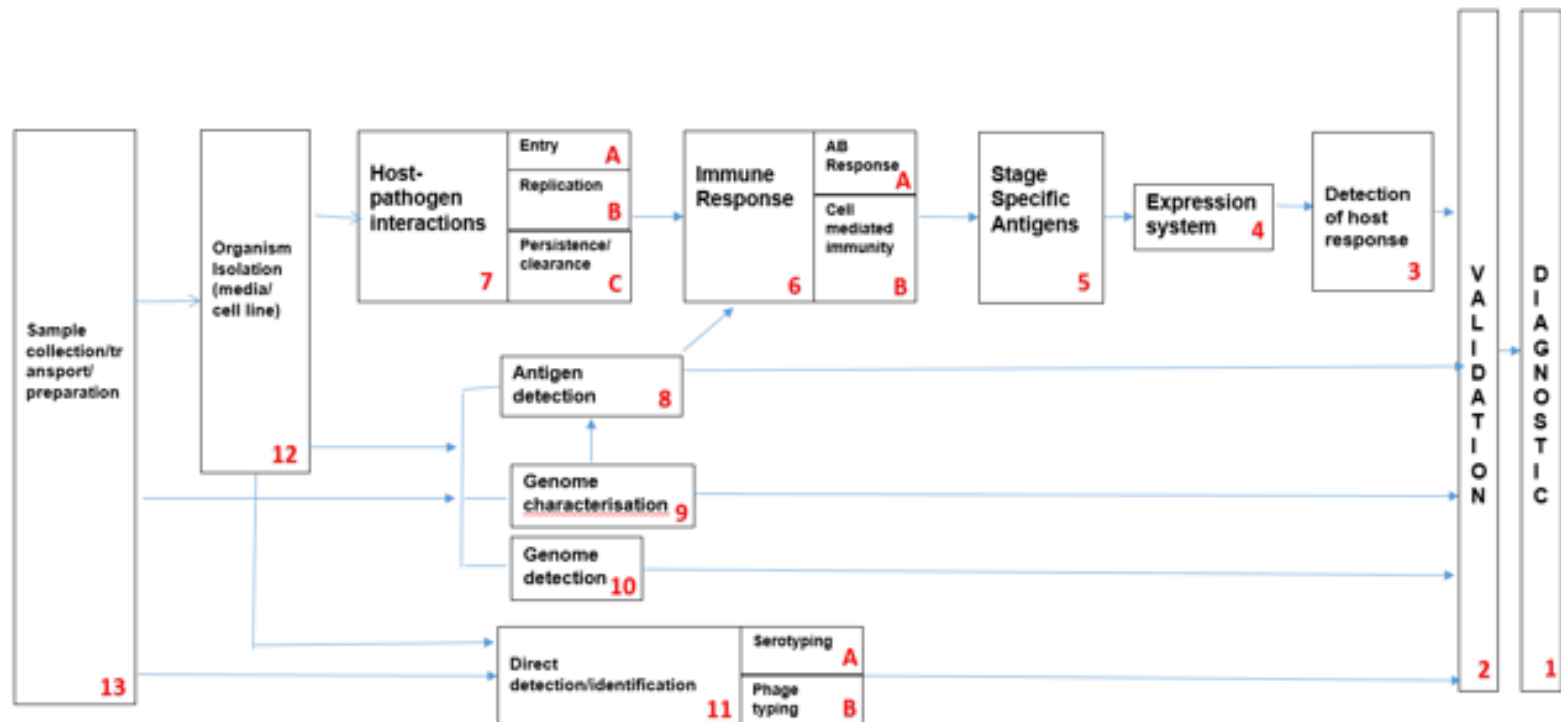
State of the Art

Existing knowledge including successes and failures

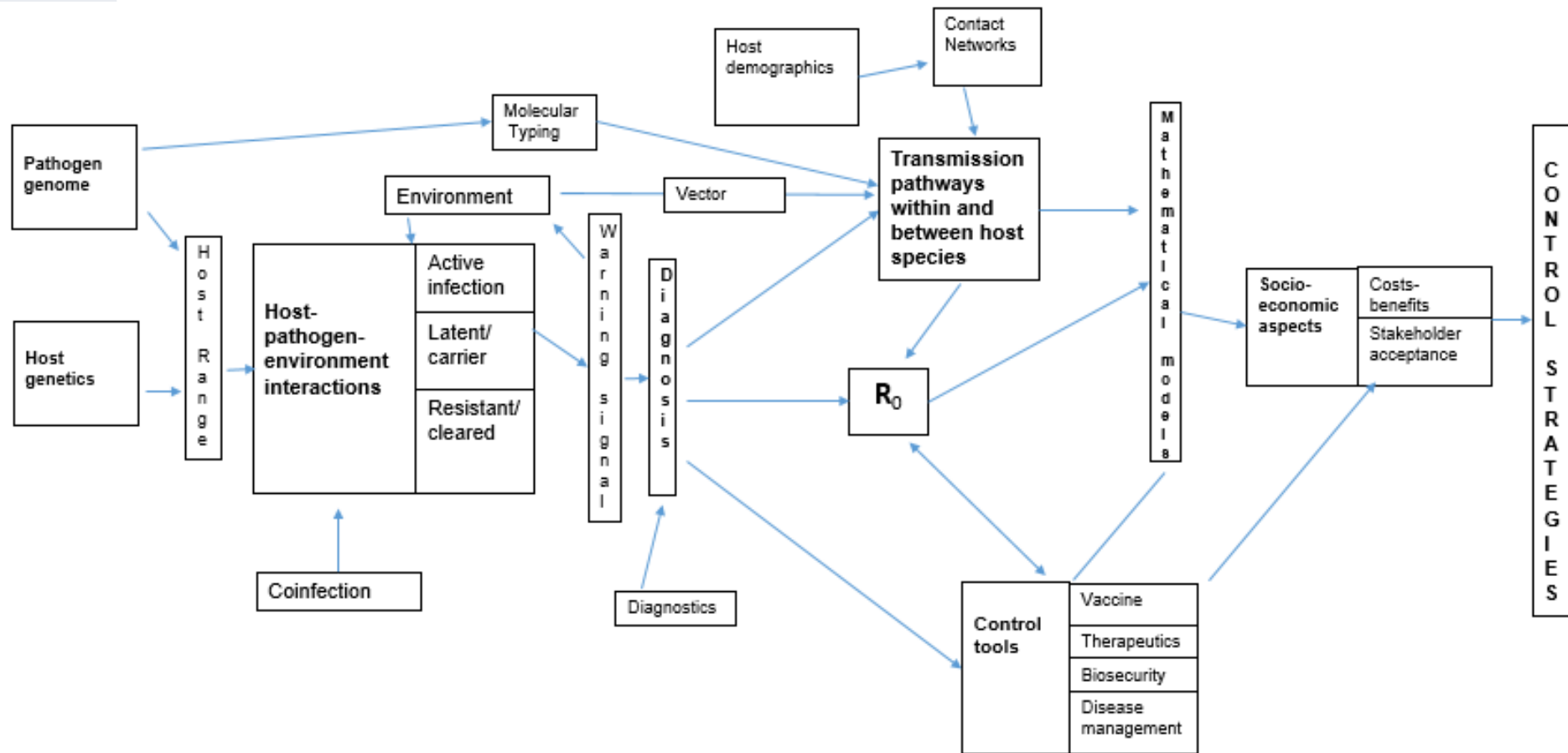
Projects

What activities are planned or underway?

Diagnostic Test Development Roadmap



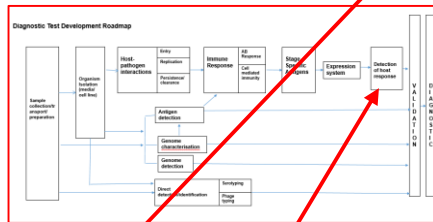
Epidemiology and Control Research Roadmaps



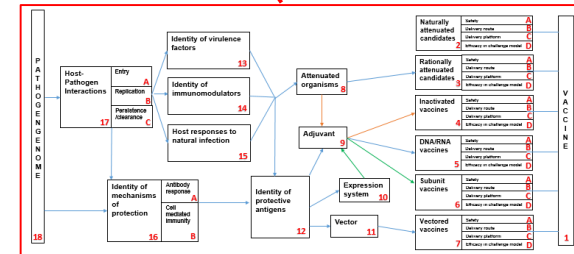
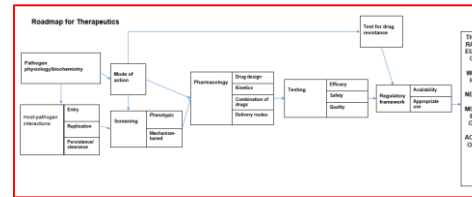
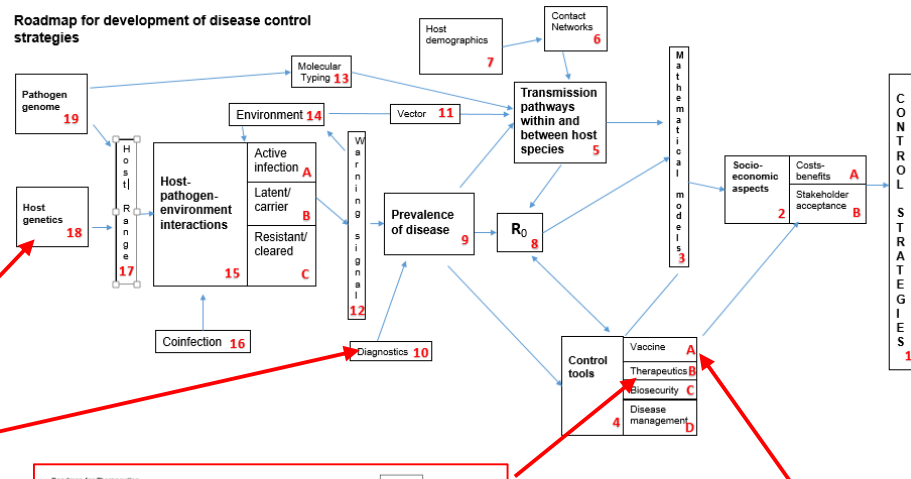


STAR-IDAZ
International Research
Consortium on Animal Health

Research roadmaps for focused gap analysis



Roadmap for development of disease control strategies



Each lead/box is underpinned
by...

1. Research question
2. Challenges
3. Solution routes
4. Dependencies
5. State of the art
6. Projects

Projects mapped onto gaps

- Overview
- Objectives and deliverables
- Outputs
- Progress

www.star-idaz.net

Research projects



Project Title

Funding organisation

Research organisation

Animal and pathogen

Project objectives

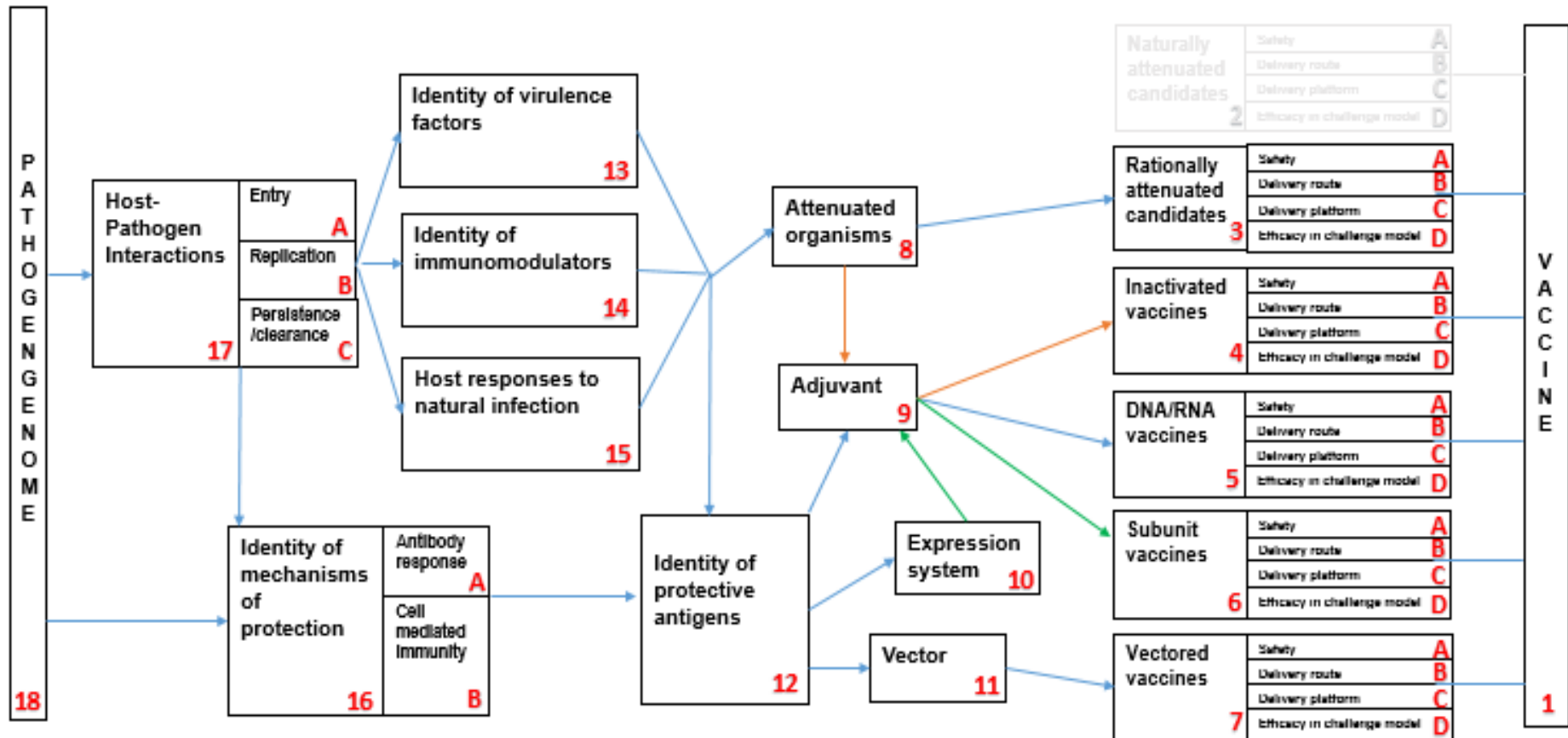
(Expected) deliverables with (expected) delivery dates and links to outputs (reports and data)

PRRS Research Gaps



		[Organisation 1 name]		
Research area	Gaps	ongoing ^a	planned ^b	collabor. ^c
1.	Diagnostics			
1.1.	Serological			
1.1a	Development of differential ELISAs to allow detection of different strains (Type 1, Type 2 and High Path)			
1.1b	Potential and limitations of the use of oral fluids for the virological and serological diagnosis			
	Analysis of PPRV herd immune status using oral fluid samples			
1.1c	Pen-side tests for antigen/antibody detection			
1.1d	Strain divergence and diagnostics			
	System for the reliable and rapid detection of new strains			
1.1e	Multiplex platforms			
1.1f	DIVA test			
	Tests to assess immune status and protection			
1.2.	Molecular diagnostics			
1.2.a.	PCRs for detection of all strains.			
2.	Vaccines			
2.1.	Vaccine development			
2.1a	More effective vaccines			
2.1b	Oral/nasal vaccines that give a local immunity at the place of entry			
2.1c	Development of marker vaccines together with differential ELISAs			
2.1d	Development of farm-specific vaccines			
2.1f	Safe adaptable attenuated and vector vaccines			
2.1g	Vectors			

PRRS Vaccine Research Roadmap





Lead Summary 1

Title: An improved multivalent PRRSV vaccine preventing disease, virus transmission and carrier state in vaccinated animals

Research Question

What are we trying to achieve and why? What is the problem we are trying to solve?

Protection against disease caused by the various virus strains.
Sterile immunity
Prevent vaccine virus contributing to evolution of field isolates
Virus eradication from a herd

Challenge(s)

What are the scientific and technological challenges (knowledge gaps needing to be addressed)?

Cross-protection against the various isolates
Attenuated live viruses can contribute to virus evolution
Generation of both a CTC and VN response
The dominant immunogens may not be protective

Solution Routes

What approaches could/should be taken to address the research question?

Establish protection levels with various candidate vaccine options, including priming with one vaccine and boosting with a different vaccine.
Establish if pig genetics influences responses
Incorporate the candidate vaccine in a vaccine platform covering a number of diseases
The development of farm strain-specific vaccines (autologous vaccines)

Dependencies

What else needs to be done before we can solve this need?

Development of cross protective/multivalent killed vaccine
Development of a cross protective/multivalent vectored vaccine
Development of a subunit vaccine
Development of an attenuated vaccine that doesn't persist or is excreted

State of the Art

Existing knowledge including successes and failures

Projects

What activities are planned or underway?

Lead Summary 3



Title: Development of an attenuated vaccine that doesn't persist or is excreted

Research Question

What are we trying to achieve and why? What is the problem we are trying to solve?

Replicating organisms are likely to give the most appropriate immune response but wild-type virus manipulates the host response. The aim is to reduce the virulence of the organism so that the vaccinated animal can mount a protective immune response

Challenge(s)

What are the scientific and technological challenges (knowledge gaps needing to be addressed)?

The generation of GM organisms that are viable but lack virulence and non-protective immune-dominant antigens. Identification of strains that give the greatest cross protection.

That vaccination prevents excretion of the organism – both the vaccine strain and wild type virus or any combination of the two that may have been generated

Solution Routes

What approaches could/should be taken to address the research question?

Monitoring the immune response following immunisation with the various candidates.

Challenge experiments with the various vaccine candidates, including challenge with other strains

Identity of cell lines that allow higher production of PRRSV

Dependencies

What else needs to be done before we can solve this need?

The generation of stable genetically modified organisms

Identity of virulence factors in PRRSV

Identity of ~~immunomodulators~~ in PRRSV

State of the Art

Existing knowledge including successes and failures

Projects

What activities are planned or underway?



Lead Summary 8

Title: The generation of rationally attenuated genetically modified PRRSV

Research Question

What are we trying to achieve and why? What is the problem we are trying to solve?

To generate organisms that are less virulent in terms of pathological changes that they cause and/or their ability to modulate the host's immune responses – rationally attenuated vaccine

Challenge(s)

What are the scientific and technological challenges (knowledge gaps needing to be addressed)?

That the organisms are stable and can be produced in cell culture

That they still generate a protective response

Solution Routes

What approaches could/should be taken to address the research question?

Generation of infectious cDNA clones

Generation and characterisation of a range of rationally attenuated organisms (using codon pair ~~deoptimisation~~)

Immune response to the attenuated organisms

Dependencies

What else needs to be done before we can solve this need?

Identity of Virulence factors and their genes

Identity of ~~immunomodulators~~

State of the Art

Existing knowledge including successes and failures

Projects

What activities are planned or underway?



Lead Summary 14

Title: To establish the identity of the immunomodulatory factors/stealth mechanisms in PRRSV

Research Question

What are we trying to achieve and why? What is the problem we are trying to solve?

PRRSV attempts to modulate the host's immune responses so that it can survive and replicate.

The early Ab response isn't protective and VN-Abs don't appear until 6 weeks into infection

Identifying and removal of the factors contributing to the virus stealth mechanisms could contribute to the generation of improved attenuated vaccine candidates

Challenge(s)

What are the scientific and technological challenges (knowledge gaps needing to be addressed)?

Solution Routes

What approaches could/should be taken to address the research question?

Generation of a range of knock-out viruses where the genes for various immunomodulatory factors or other stealth mechanisms have been removed and their use in experimental infections.

Modulation of innate immune responses

Dependencies

What else needs to be done before we can solve this need?

Improved understanding of virus-macrophage interaction – viral and macrophage gene expression in different in vivo environments (macrophages from naïve and immune hosts)

State of the Art

Existing knowledge including successes and failures

Projects

What activities are planned or underway?

Dysregulation of NK cell function/suppression of NK Cell activity

Dysregulation of IFN α production (osp, 1, 2, 4, 11)



Lead Summary 17

Title: Host Pathogen interaction in PRRSV infection

Research Question

What are we trying to achieve and why? What is the problem we are trying to solve?

To gain an improved understanding of how PRRSV enters, replicates and survives in and is released from infected cells

Challenge(s)

What are the scientific and technological challenges (knowledge gaps needing to be addressed)?

PRRSV infects macrophages which are an important contributor to the immune response so establishing how the virus interacts with macrophages is central to identifying the protective mechanisms and how the virus evades them.

Solution Routes

What approaches could/should be taken to address the research question?

Establish the basis of virulence/pathogenicity - including in high virulence strains – is it related to inflammatory response or viral replication

Viral and macrophage gene expression in different in vivo environments (macrophages from naïve and immune hosts)

Comparative response to highly pathogenic/virulent and mild/attenuated strains of the virus

Role of GP5 and Protein M peptides and binding.

Dependencies

What else needs to be done before we can solve this need?

The genome sequence of various PRRSV isolates

State of the Art

Existing knowledge including successes and failures

Projects

What activities are planned or underway?

Role of GP3 in infectivity

miR-181 and CD163 expression

Role of GP2a and GP4 in viral attachment



Publication of Roadmaps

The use of pre-print journals for community review could be considered (e.g. [bioRxiv](#)), as this provides an opportunity for review by a wide community of informed stakeholders. This approach is often used for bioinformatics papers as it provides free 'trouble-shooting' – you could get something similar for the STAR-IDAZ approaches.

You can then still go on to publish in a 'normal' journal – they often take bioRxiv review as sufficient.

Lancet Infectious diseases

Veterinary Record

Transboundary and Emerging Diseases

One of the recommendations of the project review in the summer was 'Describe step by step construction of the roadmaps and concept of online versions' so putting together a paper describing the approach would answer that one.

Meetings that SIRCAH attended/participated in



- AM - CRWAD and associated satellite meetings on PRRS – Chicago, 30th November – 4th December
Emerging diseases: Addressing the unmet vaccine needs
- RT and AM visited Elanco in Indianapolis, 5th December
- SS, RT, SM and LD – reception and workshop in Washington 12 – 13th December
- SS and AM – International Veterinary Vaccinology Network London, 9th & 10th January
- AM – SAPHIR Project (final) meeting 22nd & 23rd January
 - PRRSV and *M hyopneumoniae*; *Eimeria* and *Clostridium perfringens*; BRSV and *Mycoplasma bovis*



Update on activities (continued)

- AM - workshop facilitated by Dame Sally Davies on *“Shaping the agenda on AMR: A discussion with the private sector on draft recommendations of the Ad hoc Interagency Coordination Group (IACG) on Antimicrobial Resistance”*, 7th February
- AM - Zoonoses and Emerging Livestock Systems (ZELS) Dissemination Event, 25th February
- AM - Animal Health Investment Europe conference, 26-27 February
- AM - PARAGONE Worm Vaccine Workshop, 28th February

Washington reception, 12 December



Lord Gardiner - opened and chaired event

Dame Sally Davies - AMR

Lorenzo Terzi - EU Animal Health Research programmes

Christine Middlemiss – Disease challenges

Alex Morrow – STAR-IDAZ IRC

Objective: to 1) galvanise international political support to increase investment for strategic research on animal disease control strategies to reduce the use of antimicrobials in livestock production and 2) generate enhanced commitment (from public and charitable funders, and industry) to the systems approach being developed for the coordination of this research from basic science through to product development, which will shorten the innovation pathway and hastening the delivery of animal disease control tools.

Washington Workshop, 13 December



- Welcome (Professor Dame Sally Davies)
- Animal production and the environment (Edward Topp)
- Vaccines to reduce dependency on antimicrobials- (Cyril Gay and Stefano Messori)
- Ecology and Evolution of Infectious Diseases: a US-UK bilateral funding initiative (Sadhana Sharma)
- ERA-Net Co-fund on Animal Health: a platform for a joint funding initiative (Scott Sellers)
- Overview of STAR-IDAZ IRC- (Alex Morrow)
- Animal Disease Control and Vaccine Development: A Systems Approach (Chris Thompson)
- Introduction to the Research Roadmaps: Vaccines, Therapeutics, Diagnostics, Epidemiology and development of disease control strategies- (Luke Dalton)
- Data capture and engagement with roadmaps - Breakout groups
- Cross-cutting research needs and priorities between sectors: shortening the innovation pipeline – General discussion

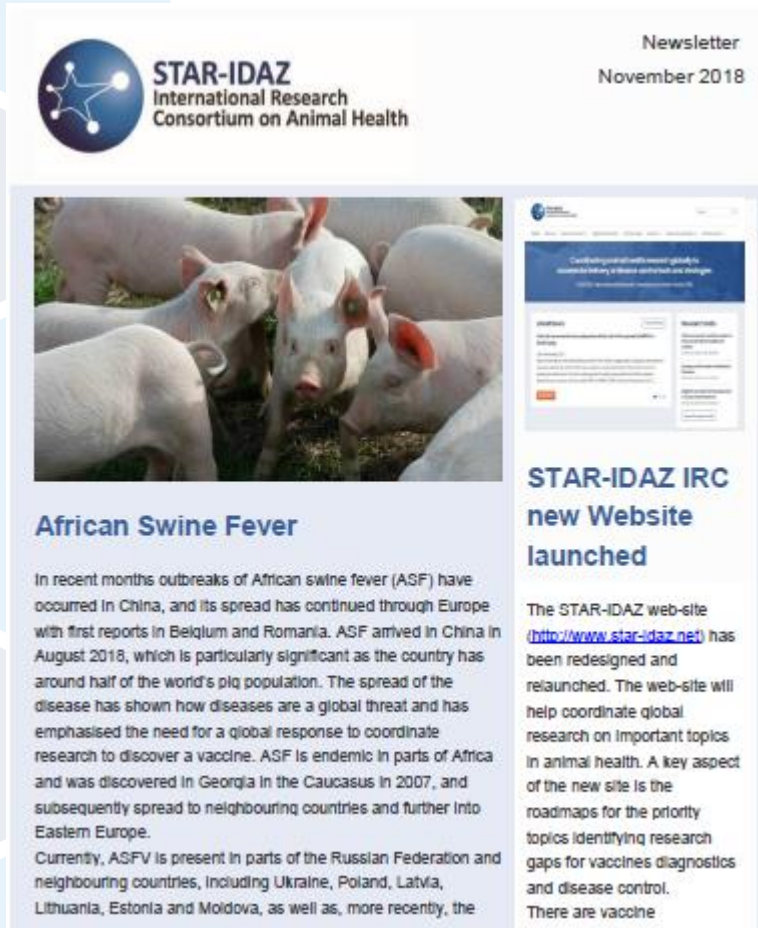
Washington Workshop



- Presentations and Workshop Report available from STAR-IDAZ website

<https://www.star-idaz.net/2018/12/workshop-on-irc-research-roadmaps-shortening-the-innovation-pipeline/>

Newsletter



November 2018

- African Swine Fever
- Global Foot and Mouth Disease Research alliance (GFRA) meeting in Argentina.
- Antimicrobial Resistance and Disease Control
- Events

Circulated to members and available for download from www.STAR-IDAZ.net



**European Animal Health
& Welfare Research**

COLLABORATIVE WORKING GROUP

International Coordination of Research on Infectious Animal Diseases (ICRAD) ERAnet.

Purpose:

To support multi-disciplinary research to improve animal health and welfare, addressing some of the key endemic and (re)-emerging threats e.g. African Swine Fever and Animal Influenza, and developing novel detection and intervention strategies (including vaccines).

How:

Establish and operate a joint funding mechanism for animal health research on an international basis.

Reduced duplication of effort, better alignment of science, access to a wider knowledge base, collective action against global threats and challenges.



**European Animal Health
& Welfare Research**

COLLABORATIVE WORKING GROUP

Previous ERAnets in Animal Health

EMIDA (Animal Health Research):

- 25 funding organisations
- €45m invested
- 26 projects funded (collaborative international networks)

ANIHWA (Animal Health and Welfare Research)

- €30m invested
- 33 projects funded

bTB, BTV, FMD, Campylobacter, Mastitis, TSEs, etc...



**European Animal Health
& Welfare Research**

COLLABORATIVE WORKING GROUP

ICRAD ERAnet (progress)

- Proposal under review with European Commission
- Currently 26 funding organisations committed to support (Europe)
- Additional expressions of interest and commitments from other international funding bodies (Americas, Asia, Africa)
- EU will also contribute funds toward the joint call
- Approximately €20m for the first research call



**European Animal Health
& Welfare Research**

COLLABORATIVE WORKING GROUP

Themes of ICRAD research call

1. Improved understanding of endemic and emerging infectious animal diseases
 - ASF, Animal Influenzas and other priority diseases
 - Host/pathogen interactions, Epidemiology, Host immunology
2. Generic technology platforms for producing novel and/or improved vaccines
 - Including in relation to reduced use of anti-microbials
3. Rapid, accurate and easy to use in-field diagnostics technology



**European Animal Health
& Welfare Research**

COLLABORATIVE WORKING GROUP

Alignment of European research investment with other international initiatives

- Are you planning research calls that align with any of the 3 themes?
- Opportunity to align investments (currently €20m committed)
- Potential for better co-ordination of research efforts
- Shorten the innovation pathway
- Lead to delivery of research output that has an impact
 - Disease control
 - AMR
 - Food security

Contact us



For further information on:

- STAR-IDAZ IRC visit www.star-idaz.net.
- CWG AH&W visit <http://www.scar-cwg-ahw.org/>

STAR-IDAZ IRC Project Office:

Alex Morrow or Luke Dalton

**Defra, Area 5B, Nobel House, 17 Smith Square,
London SW1P 3JR**

Alex.Morrow@Defra.gov.uk , Luke.Dalton@Defra.gov.uk

Stefano Messori (OIE)

s.messori@oie.int



Thank you for
your attention