



DEFEND NEWSLETTER #3

FEBRUARY 2020

DEFEND is a consortium of 30 scientific partners from academia, industry and government working together to halt the emergence of two viral pathogens of livestock into Europe and neighbouring countries – **African swine fever virus (ASFV)** and **lumpy skin disease virus (LSDV)**.

The aim of DEFEND is to control ASFV and LSDV by understanding the drivers behind their emergence, and by generating research outputs which underpin novel diagnostic tools and vaccines and authenticate appropriate and rapid responses by decision-makers.

DEFEND Key Facts

Start date: June 2018

Duration: 5 years

Budget: 5.6 million EUR

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Welcome to our third DEFEND newsletter!

DEFEND has reached its 18-month timepoint, which is the end of the official “reporting period 1”. The project continues to make great progress across the work packages. Literature reviews have been completed, field missions are underway, and the first set of animal experiments have been completed with sample analysis ongoing.

The ethos of DEFEND is collaboration between diverse teams with different, but complementary expertise. This is emphasised by the four partners profiled in this issue, namely DEFEND industry partner Zoetis, two partners with recent and current experience of LSDV and ASFV outbreaks - Agricultural University of Tirana in Albania and Veterinary Specialized Institute Kraljevo from Serbia, and the European University Institute which focuses on socio-political issues affecting Europe. Four very different partners, all working towards the same goal; the control and prevention of ASFV and LSDV.

In this edition of our newsletter we also review our DEFEND 2019 consortium meeting and highlight two consortium initiatives - the DEFEND childcare fund and the DEFEND integrated knowledge transfer awards.

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NEWS

Dr Kris De Clercq attends the GF-TADs Standing Group on Lumpy Skin Disease, Greece

Dr Kris De Clercq and Dr Pip Beard from the DEFEND consortium attended the 9th meeting of the Standing Group of Experts on Lumpy Skin Disease in South-East Europe, in Greece in October 2019. The meeting was held under the GF-TADs umbrella. GF-TADs stands for “Global Framework for the Progressive Control of Transboundary Animal Diseases”. It is a joint initiative of FAO and OIE, aimed at facilitating the empowerment of regional alliances to achieve the prevention, detection and control of transboundary animal diseases. Countries in the lumpy skin disease (LSD) hotspot in southeast Europe and western Asia were represented at the meeting and discussed recent progress in the control of the disease. The discussion focused on the continuation of the vaccination exit strategy in the Balkans, and highlighted knowledge gaps such as the length of protection afforded by the currently available live-attenuated LSD vaccines. More information can be found at:

https://web.oie.int/RR-Europe/eng/Regprog/en_GF_TADS%20-%20Standing%20Group%20LSD.htm#LSD9



Dr Kris De Clercq presenting at GF-TADs standing group on lumpy skin disease

Dr Pip Beard reflects on attending gender equality conference in Helsinki, Finland



Dr Pip Beard at the gender equality conference in Helsinki

Gender equality is a core value of the DEFEND project. In order to learn more about how to promote gender equality I attended a conference on gender equality in research and innovation. “Research and Innovation Excellence through gender equality: New pathways and challenges” was a two-day event held under the Finnish Presidency of the European Union in Helsinki on 23–24 October 2019. The conference was organised by the Finnish Ministry of Education and Culture, with support from the European Commission through Horizon 2020.

Equality between women and men is a fundamental value of the European Union. In Horizon 2020 gender is a cross-cutting issue and is mainstreamed in each of the different parts of the Work Programme (<https://ec.europa.eu/programmes/horizon2020/en/h2020-section/promoting-gender-equality-research-and-innovation>). Based on these foundations, the conference brought together policymakers and actors from research and higher education communities, research funding institutions, and other stakeholders to assess the current state of play and discuss tools and strategies available to address gender imbalances.

Some of the key points I took from the meeting were:

- Collection of data in order to provide an evidence base with which to instigate and support meaningful change is key. Funding research which will provide this data is a priority.
- There is uneven implementation of gender equality policies and practices across Member States.
- There are a growing number of examples, for example Ireland and Germany, where access of institutes or departments to research funding has been linked to gender equality progress.
- There are many sources of information and support for groups looking to investigate or implement measures for gender equality in research and innovation for example the European Institute for Gender Equality (<https://eige.europa.eu/EIGE>), the Athena Swan charter (<https://www.ecu.ac.uk/equality-charters/athena-swan/>), and current H2020 funded projects such as Change (https://www.change-h2020.eu/the_project.php), Genera (<https://genera-project.com/>), Plotina (<https://www.plotina.eu/>) and Supera (<https://www.superaproject.eu/h2020-gender-projects/>).

The conference participants contributed to a “Call for Action” document that summarised the main messages of the meeting (<https://www.lyyti.fi/p/NEUPATHWAYS/en/outcomes>)

DEFEND supports women in science with annual childcare fund

The DEFEND consortium prides itself on the promotion of equal opportunities in the implementation of the project. One of the practical activities to assist the participation of women in science is the provision of a **Childcare Support Fund**. The fund is available for consortium members attending the DEFEND annual meeting. Applicants can request up to €400 to help with childcare costs when attending a consortium meeting. Guidelines include priority consideration for staff with toddlers under the age of 2. Staff with children up to the age of 12 are eligible. Staff can use the money, for example, for additional travel costs for someone to accompany them to the event, or to cover extra childcare costs.

For the 2019 annual consortium meeting, Dr Giorgia Angeloni (the lead for [work package 3](#)) from VSF Italia (<http://vsf-italia.it/>) was assisted by the childcare support fund, allowing her to bring her young child with her to the meeting. With the support of the grant, she was able to fully participate in the meeting and update the consortium on the latest developments and future plans for [work package 3](#).



Dr Giorgia Angeloni with her son, outside the European Commission

Second annual DEFEND consortium meeting held in Belgium

The DEFEND consortium held its second annual meeting at the Hotel Elisabeth in Mechelen, Belgium, on 26-27



The Defend Consortium at the annual meeting in Mechelen, Belgium

September 2019. The meeting brought together over 45 participants, from 24 partner organisations, travelling from across Europe and even as far as South Africa. The project was also delighted to welcome members of the Multi-Actor Panel (MAP), who provide advice on the dissemination, exploitation and impact of DEFEND outputs, and members of the Ethics Advisory Board (EAB), whose role is to provide advice on ethical issues within the project.

Following an opening address from the consortium leads, Dr Pip Beard (The Pirbright Institute, UK) and

Dr Kris De Clercq (Sciensano, Belgium), the first day focused on updates from each of the scientific work package leaders. Progress and findings were discussed, sparking lively and collegial debate. The day also included talks about the African swine fever situation in Romania from Institutul de Diagnostic si Sanatate Animalia (IDAH) and an update on lumpy skin disease in The Russian Federation from FGI Federal Centre for Animal health (FGBI ARRIAH). In addition, the DEFEND European Commission Policy Officer gave a highly relevant overview on 'EU research funding on African swine fever: state of play and plan' which outlined DEFEND's vital role within the portfolio of EU funded research into livestock diseases.

The DEFEND project working procedures were the focus of day two. This included an update on communications, dissemination and the impact of the project. The meeting was voted to be a huge success with feedback indicating that it was incredibly useful for knowledge exchange and progression across all the work packages. The feedback also gave particular praise for the outstanding meeting organisation by the team at Sciensano, whose hard work and diligence could be seen throughout the two days.

DEFEND Integrated Knowledge Transfer Awards 2019: update on activities

In July 2019, the DEFEND project held its first Integrated Knowledge Transfer (iKT) Awards. The awards form part of the iKT plan, which focuses on guaranteeing impact by ensuring the knowledge gained during the project is shared and utilised to its fullest extent.

Consortium partners were invited to apply for the awards with applications focusing on one or more of the following criteria;

- Ensuring relevance of the DEFEND research
- Facilitating the use of DEFEND knowledge
- Assessing barriers to using DEFEND knowledge
- Monitoring DEFEND knowledge use



Applications were assessed by the DEFEND Steering Committee against a specific set of criteria and were ranked to give the overall winners. Due to the outstanding nature of the applications and their relevance to the DEFEND project, three of the applications were chosen to each receive the €1000 funding for their chosen activity.

Successful applications

- **Scientific Veterinary Institute Novi Sad (NIV-NS)**, Serbia - for attendance at the 13th annual conference of EPIZONE, Berlin, 26-28 August 2019
- **Veterinary Specialist Institute Kraljevo (VSI-Kraljevo)**, Serbia - for attendance at the 13th annual conference of EPIZONE, Berlin, 26-28 August 2019
- **Institutul de Diagnosti si Sanatate Animalia (IDAH)**, Romania - for attendance at the 13th Applied Biosafety Meeting, University of Berne, Switzerland, 22-23 August 2019

Update on iKT activities

In August 2019, the successful applicants attended their chosen iKT activities. This included attendance at conferences and a meeting, where the participants could speak with colleagues about their work on the DEFEND project. The activities also encompassed updates on a variety of scientific research projects and allowed for networking discussions, knowledge exchange between scientists and an opportunity for promotion of the DEFEND project, its aims and progress so far.

The applicants all gained great insight and value from attendance at their chosen activities. They all plan to utilise the knowledge and connections gained during the activities to progress their work on DEFEND and beyond.

Congratulations once again to our successful applicants for 2019. We look forward to welcoming applications from our DEFEND partners in 2020.

Keep up to date

If you would like to keep up to date with our work on DEFEND, you can register as a **DEFEND Stakeholder**, by emailing the DEFEND mailbox (defend@pirbright.ac.uk).

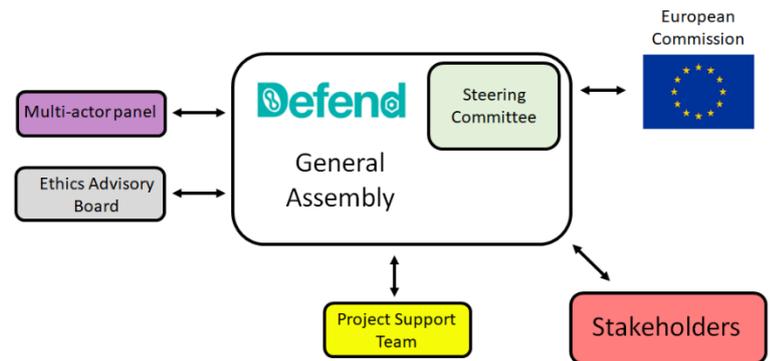
You can also follow us on **Twitter and Facebook @defend2020**





DEFEND Advisory Groups - Multi-Actor Panel and Ethics Advisory Board

The DEFEND project has demand-driven innovation at its core. It includes partners from academia, government, industry and non-government organisations, with expertise from both scientific and practical backgrounds. The complementary knowledge from these sources gives the DEFEND project a unique view on the issues surrounding African swine fever and lumpy skin disease. In addition, the project has two advisory groups - the Multi-Actor Panel (MAP) and Ethics Advisory Board (EAB). These groups sit outside the research functions of the project, providing advice and guidance on the workings of the project.



Organisational structure of DEFEND, showing the input of the MAP and EAB

Multi- Actor Panel

The MAP is formed of end-users, stakeholders and scientists from relevant specialities. It consists of eight experts, all with the role of providing advice on the dissemination, exploitation and impact of DEFEND. It advises on: how DEFEND outputs can be integrated into policy, how to address bottlenecks in achieving impact, and fosters knowledge sharing and collaboration.

Areas of impact and organisations represented within the MAP

Area of impact	Organisation
Animal disease research funding	STAR- IDAZ International Research Consortium on Animal Health https://www.star-idaz.net/
European livestock health	Food and Agriculture Organisation of the United Nations (FAO) http://www.fao.org/home/en/
	World Organisation for Animal Health (OIE) https://www.oie.int/
	European Food Safety Authority (EFSA) https://www.efsa.europa.eu/
	Director General for Health and Food Safety (DG Sante - ASF) https://ec.europa.eu/info/departments/health-and-food-safety_en
European cattle industry	Slovak University of Agriculture in Nitra https://www.uniag.sk/en/
European Pig industry	National Association of Pig and Cattle Producers (ANPROGAPOR) http://www.anprogapor.es/asociacion-nacional-ganado-porcino/anprogapor/inicio_2_1_ap.html
Recreational hunting lobby	European Federation for Hunting and Conservation https://www.face.eu/

Ethics Advisory Board (EAB)

The EAB consists of two external experts who advise the consortium on ethical issues, including: the use of animals in research, the use and publication of data, working with vulnerable human populations, and any dual-use implications of the research carried out by the consortium.

Areas of impact and organisations represented within the EAB

Area of impact	Organisation
Laboratory animal medicine	Red Kite Veterinary Consultants LTD https://redkitevets.co.uk/
Human research ethics	Enhance International LTD http://www.enhanceinternational.eu/

The MAP and EAB are crucial to the success of DEFEND and we would like to thank the experts for their time and vital contribution to the project.

PARTNER FOCUS

In each newsletter we ask several of our partners to describe their organisation, research and role in DEFEND. In this edition we have focused on partners from **Belgium, Albania, Italy and Serbia.**

Partner: Zoetis

Country: Belgium / Spain



Zoetis Belgium S.L.



Zoetis Manufacturing & Research

Description of Organisation

Zoetis is a world leading Animal Health company. At Zoetis, we discover, develop, manufacture and market veterinary medicines, vaccines and diagnostics, complemented by genetic tests, biodevices and a range of services. We work to help meet the growing worldwide demand for meat, poultry, fish, eggs and dairy foods and to care for the increasing number of pets. With our singular focus on animal health, we strive to make our products, services and people the most valued by veterinarians and livestock farmers around the world.

Description of research / area of expertise

Our comprehensive R&D efforts are comprised of more than 300 programs and reflect our commitment to advancing animal health with better solutions. Our rigorous approach to project selection and prioritization helps us develop these solutions with speed, flexibility and efficiency. Our R&D network, with global headquarters in Kalamazoo, Michigan, includes teams in the United States, Latin America, Europe and Asia. Our global presence is at the core of our ability to respond rapidly and accurately when emerging infectious diseases spread and threaten the lives of people, animals and livelihoods.

With a specific focus on veterinary vaccines, one of the main activities of our R&D group located in Spain is the development of vaccines against emerging infectious diseases.

Role in DEFEND

- **Co-leader of [WP11](#)**: Zoetis is working together with the University of Oxford and The Pirbright Institute to develop a novel vaccine for LSD.
- **[WP8](#)**: Zoetis will also participate in the development of new and improved diagnostic tests for LSD and the necessary DIVA test to differentiate infected animals from animals vaccinated with the developed subunit vaccine.
- **[WP13](#)**: Zoetis will contribute to the exploitation of results and will also act as an advisor on commercialization of results.

Key people working on DEFEND

- **Dr Mercedes Mouriño**
- **Dr Sandra Juanola**

Both are scientists at Zoetis with experience in the development of vaccines against emerging infectious diseases in Europe. They were involved in the development and registration of a range of vaccines against Bluetongue virus (Zulvac[®] BTV), the first live marker vaccine against Classical Swine Fever (Suvaxyn[®] CSF Marker) and the first vaccine at European level against the disease caused by the Schmallenberg virus (Zulvac[®] SBV).



Partner: Agricultural University of Tirana

Country: Albania



Description of Organisation

The Agricultural University of Tirana (AUT) is the unique centre in Albania for undergraduate and graduate studies, scientific research, training and extension in the area of agriculture and food (Agronomy, Horticulture and Plant Protection, Agribusiness, Economy and Agrarian Policy, Agro-environment and Ecology, Agro-food Technology, Animal Husbandry and Business, Aquaculture and Fishery Management, Forestry Engineering, Veterinary Medicine). It has five faculties, 22 departments, and 540 academic and supporting staff. AUT participates in many national and international projects of the EU, including FP6 and FP7 programs, TEMPUS, World Bank projects, SEERA - Net, ERASMUS Plus, INTEREG EU funded projects and several bilateral projects with Italy, Greece, Slovenia and Austria.

Description of research / area of expertise

Research interest include most important infectious diseases in Albania, particularly Infectious Disease with public health significance; Bovine brucellosis, Sheep and Goat Brucellosis, Anthrax, Blue tongue, Bovine tuberculosis; Epidemiological investigation, Disease control epidemiological characterization; role of host defence mechanisms; improving the current diagnostic methods and assessing control methods.

Role in DEFEND

- [WP 1](#) - Risk Analysis Framework
- [WP 2](#) - Phylogenetic analysis of ASFV and LSDV
- [WP 3](#) - Conflict, migration and virus spread
- [WP 10](#) - Host determinants of LSD resistance and susceptibility

Key people working on DEFEND

- **Prof Xhelil Koleci**
- **Dr Anita Koni**

**Partner: European University Institute,
Global Governance Programme**

Country: Italy



European
University
Institute

ROBERT
SCHUMAN
CENTRE FOR
ADVANCED
STUDIES

Description of Organisation

The Global Governance Programme (GGP) is research turned into action. It provides a European setting to conduct research at the highest level and promote synergies between the worlds of research and policymaking, to generate ideas and identify creative and innovative solutions to global challenges. The programme is part of the Robert Schuman Centre for Advanced Studies of the European University Institute, a world-renowned academic institution. It receives financial support from the European Commission through the European Union budget. Complete information on our activities can be found online at: globalgovernanceprogramme.eui.eu

Description of research / area of expertise

Social sciences interacting with other disciplines, including agriculture, animal production and veterinarians.

Work package 3 aims to address the ways socio-political trouble might affect animal health issues, and to better understand how conflict/insecurity and related people migration and livestock mobility act as drivers for the emergence and spreading of some specific animal diseases, and their cross-border transmission.

Role in DEFEND

- [WP 3](#) - Conflict, migration and virus spread

Key people working on DEFEND

- **Dr Michele Nori**

Partner: Veterinary Specialized Institute Kraljevo

Country: Serbia



Description of Organisation

Veterinary Specialized Institute Kraljevo (VSI-Kraljevo) is one of 12 specialized veterinary institutions in the network of specialist service of the Republic of Serbia. VSI-Kraljevo is the National Reference Laboratory for avian influenza, Newcastle disease, chlamydia, avian mycoplasmas, infectious bronchitis, gumboro disease and West Nile disease.

Description of research / area of expertise

VSI-Kraljevo has experienced research teams in laboratory diagnostic specialisms and veterinary epidemiologists involved mainly in applied research in the area of detection and control of contagious and vector borne animal diseases, including LSD and ASF.



The team at VSI Kraljevo

Role in DEFEND

- [WP 2](#) - Phylogenetic analysis of ASFV and LSDV
- [WP 3](#) - Conflict, migration and virus spread
- [WP4](#) - Transmission of LSD virus
- [WP 10](#) - Host determinants of LSD resistance and susceptibility

Key people working on DEFEND

- **Dr Dejan Vidanovic**
- **Dr Milanko Sekler**
- **Dr Miso Kolarevic**