

## Fantastic Final School!

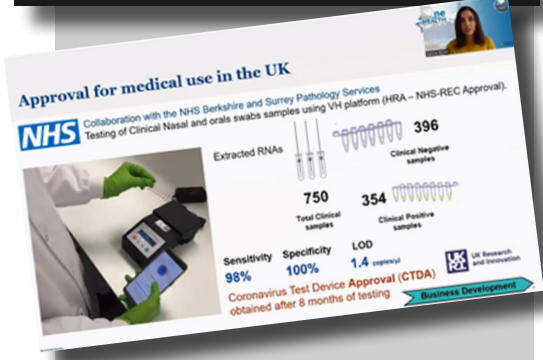
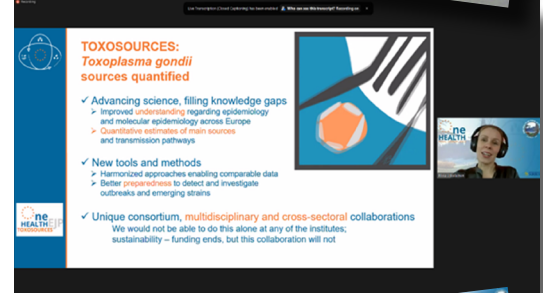
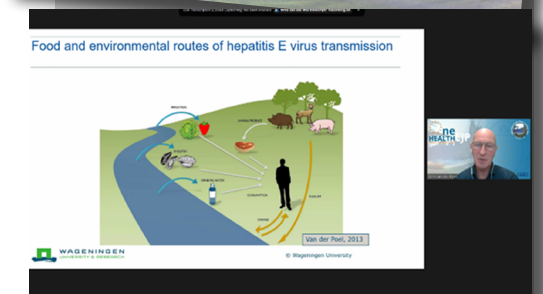
The One Health EJP Summer Schools have been an important element of our Education and Training plan, delivering training to the next generation of One Health scientists. These international events have successfully shared knowledge and skills, providing networking opportunities for university students and early career researchers across a wide variety of disciplines. We celebrated the conclusion of these outstanding schools with the [OHEJP Final School 2022](#).

Held on 5-7th December, the OHEJP Final School 2022 was an online event with the theme of *Sustainability in One Health – how can it be achieved?*, organised and hosted by the [University of Surrey](#). There was participation by 246 scientists from across the globe with a wide variety of educational backgrounds.

This event focused on sustainability, since it is at the centre of the One Health approach to optimise the health of people, animals, plants, and ecosystems. The five years of One Health EJP cross-sector research collaborations have developed novel outputs to better prevent, predict, detect, and respond to the global health threats of antimicrobial resistance, foodborne zoonoses and emerging zoonotic diseases. During the Final School, we highlighted the importance of these outcomes to benefit the future of One Health.

We welcomed 30 speakers from 16 institutes, both from within the One Health EJP and external organisations further afield in Australia, New Zealand and Brazil. Members of the Consortium shared their insights on our innovative One Health research activities and training opportunities across domains, discussing their applications to sustainability. PhD students and researchers funded for Short Term Missions described how these awards had enhanced their development. Invited speakers from the University of Surrey emphasised the importance of commercialisation of research applications to benefit society. One session focused on effective communication across different audiences and developing collaborations, essential for generating impact. The policy session focused on the relevance of science to policy translation, with the [EFSA](#) Chief Scientist, Carlos Gonçalo das Neves, describing how One Health governance requires improvement in this post-pandemic era. Attendees engaged in lively question and answer discussions after these presentations.

Overall, the high quality information shared by speakers and fantastic engagement of participants at the OHEJP Final School exceeded our expectations. Read the [blog](#).



# Future Legacy of the One Health EJP

Over the last five years, the integrative research activities undertaken by the One Health EJP have delivered a wide range of innovative outcomes applied to the global threats of antimicrobial resistance, zoonotic and foodborne diseases. Prior to programme completion in September 2023, our objective is to publicise these achievements and encourage their uptake by external stakeholders for gaining impact at national, European, and international levels. This strategy will ensure the legacy of One Health EJP's work.



This important process started at the Programme Managers Committee (PMC) and Programme Owners Committee (POC) joint meeting on 21-22nd November, held at the [Public Health Agency of Sweden \(FoHM\)](#) in Stockholm and co-organised by the [Swedish National Veterinary Institute \(SVA\)](#). Interactive meeting sessions and an informal social dinner brought together over 70 invited attendees, including stakeholder committee representatives from [ECDC](#), [EFSA](#), [EEA](#), [WOAH](#), [European Commission's Directorate-General Agri](#) (Agriculture and Rural Development), [JPIAMR](#), and national government agencies.

The lively plenary session shared One Health EJP's history and journey. We highlighted the main strengths and opportunities provided by our transdisciplinary European collaborations. These included our development of new databases and tools, harmonisation of protocols that both improve One Health (OH) preparedness across sectors and will further advance the OH approach across Europe. Some programme limitations were discussed, such as its short time frame, restricted geographic range, and lack of environment inclusion. Selected project members from 15 joint research projects engaged with the audience in a dynamic poster session, presenting project outcomes and expected impacts. They focused on surveillance (data interpretation and cross-sector communication, and implementation of surveillance activities) and laboratory methods across the 3 domains of intervention. Another plenary session for the 6 joint integrative projects and [SimEx 2022](#) conduction exercises, provided opportunity for the presentation of key outputs to be used by stakeholders.



Roundtable discussions explained how our Consortium has contributed to the institutionalisation of the One Health approach in Europe, providing case examples from Sweden and Italy. Enthusiastic audience participation in the final Mentimeter question session generated useful feedback on what individuals have gained from the One Health EJP and consider important for the future. Their appreciation for our extended and consolidated, international OH network will be beneficial for subsequent impacts of our work.



This joint meeting has strengthened relationships between Consortium members and external stakeholders to ensure the One Health EJP legacy in future OH activities across Europe. We look forward to further expanding our communications with different audiences at events in 2023, including at the Stakeholder Conference, 19th to 21st June. Let us continue to work together to benefit One Health this decade!



# BIOPIGEE workshop on biosecurity measures

Since 2020, the BIOPIGEE project has conducted collaborative research to identify the most effective biosecurity practices that limit the occurrence of *Salmonella* and Hepatitis E Virus (HEV) in pig production across Europe.

These pathogens pose zoonotic infection risks to humans from consumption of contaminated pork or occupational contact with pigs. Additionally, *Salmonella* and HEV cause infections of varied severity in pigs. BIOPIGEE's work to develop biosecurity measures is important for reducing these pathogen loads along the food chain.

The BIOPIGEE Workshop on *Biosecurity measures to control Salmonella and HEV along the pig production chain in Europe* was held on 14th September 2022, hosted by the [German Federal Institute for Risk Assessment \(BfR\)](#). This online event successfully shared BIOPIGEE project findings with 150 participants from a wide range of professional backgrounds from across Europe and globally.

Speakers from 5 institutes presented information on study results and techniques applied to improving biosecurity measures, with good engagement from participants on the implementation of best practices. Positive feedback on BIOPIGEE's research outputs highlights interest in biosecurity and pathogen control on pig farms. Congratulations to BIOPIGEE members for delivering this well-received event. Read more in our [blog post](#).

# COHESIVE project leader interview

The Joint Integrative Project COHESIVE was effectively completed in December 2021.



An insightful interview with project leader, Kitty Maassen, was published online in October 2022 by the National Institute of Public Health and the Environment ([RIVM](#)), the Netherlands. Her experience in zoonotic diseases, as head of RIVM's Animal and Vector Department, made her ideally suited to lead [COHESIVE](#).

Kitty reflected on challenges and achievements of this multidisciplinary project partnership across 12 countries. She explained the background to COHESIVE's work on developing tools used in integrated risk analysis systems for emerging zoonoses, foodborne diseases and antimicrobial resistance.

What does Kitty expect for the future impacts of COHESIVE's work? "My hope is that COHESIVE has been able to make some small contribution to One Health cooperation, and that a number of European countries will use the guidelines to achieve changes in how they work together." "That would improve European preparedness for zoonosis events and enable a cross-border approach. I also hope that countries will adopt some of the IT tools that were developed, which will facilitate an effective outbreak response." Read the full interview [here](#).

# CPD Module delivered in Denmark



**One major component of the One Health EJP Education and Training activities involves delivering innovative Continuing Professional Development modules to early career researchers and PhD students.**

Three modules have been conducted, with this year's final one [Rapid diagnostics and harmonisation of diagnostic tests](#) held on 2-4th November 2022. The Technical University of Denmark's [National Food Institute \(DTU Food\)](#) and [Statens Serum Institut \(SSI\)](#) in Copenhagen, successfully hosted this hybrid training event.

Several different teaching and learning methods were used in the module, including hands-on exercises in the laboratory and at the desk. Case studies based upon infection outbreaks involving two pathogens of zoonotic importance, specifically *E. coli* and *Cryptosporidium* species, were presented. Harmonised laboratory methods across multiple pathogens when undertaking management of a zoonotic outbreak using a One Health approach were highlighted. This module shared the experiences and new scientific knowledge from 3 OHEJP Joint Integrative Projects: [OH-Harmony-CAP](#), [MATRIX](#) and [CARE](#). Our thanks to the organisers of this last [CPD module](#). Read more in our [blog post](#).

# Six successful Short Term Missions

This final year of OHEJP funded Short Term Missions (STMs) was highly productive with 6 successfully completed and 4 underway.

STMs are small travel grants awarded to students and ECRs from OHEJP member institutes for training activities. Scientific expertise, methodologies, equipment, and facilities are shared to harmonise existing One Health approaches and facilitate collaborations.

Ana Christina Ferreira from [INIUV](#) visited [DTU](#) to benefit her research for OHEJP [DISCOVER](#) project on sources of antimicrobial resistance (AMR). Ana learnt novel approaches and models based on metagenomic\* data for surveillance and source attribution of AMR determinants, relevant for future preparedness to AMR threats.

Laura González Villeta from the [University of Surrey](#) worked at [RIVM](#) to validate the methodology of [EnvDis](#) PhD project. Her PhD focuses on unravelling the role of the environment in human salmonellosis, to develop a modelling tool to assess the salmonellosis risk based on information from key weather factors.

Antonio Rodríguez from [INIA](#) visited [RIVM](#) and developed a model for zoonotic disease surveillance using machine learning methods. He tested the model on data from the Wild Boar Surveillance Plan of Andalucía, to determine the key risk factors influencing wild boar diseases in Spain.

Ingrid Cárdenas-Rey from [Wageningen University and Research](#) went to [University of Copenhagen](#) to develop her laboratory skills on bacterial cloning, for OHEJP [VIMOGUT](#) PhD project on antimicrobial resistance in chickens. Ingrid studies the gut microbiome development of chickens to colonisation by antibiotic resistant bacteria using gene sequencing techniques and chicken gut models.

Emma Brook from the [Animal and Plant Health Agency](#) travelled to the [Norwegian Veterinary Institute](#) for OHEJP [BIOPIGEE](#) project. She conducted experiments to examine what happens to bacteria that survive disinfectant treatment, due to their protective biofilms, by repeated exposure to disinfectants of bacteria in biofilm. These findings are useful for the application of disinfectants to control foodborne bacterial pathogens.

Mihail Milanov, Gergana Mateva and Albena Dimitrova Angelova at [NDRVM](#) of Bulgaria went to [ANSES](#) to learn microbiological and molecular techniques for identification of *Brucella* from different strains. Improving diagnostic testing of these zoonotic bacteria is important for animal and public health.

Congratulations to all recipients of STM awards for their achievements! Read the case studies for 2022 on our [website](#).

\*Metagenomics is the study of genetic material of all the microorganisms present in a sample.



## Looking Forward to 2023...

**MARCH 2023**

**23-24th  
Vienna  
& online**

OHEJP Scientific Steering Board Meeting at [AGES](#) in Vienna, 23-24th March 2023.

**JUNE 2023**

**19-21st  
Brussels  
& online**

OHEJP Stakeholder Conference at [Comics Art Museum](#) venue in Brussels, 19-21st June 2023.

**SEPT 2023**

**Paris  
& online**

OHEJP Final Meeting at [ANSES](#) in Paris, September 2023. Date to be decided.

There will also be a OHEJP webinar series for JIPs, JIPs & PhDs in Spring 2023, dates to be decided. Watch this space!

Visit our [website](#) for full details.

Prepared by the [OHEJP Communications Team](#), University of Surrey