

Current and Future Challenges in Veterinary Virus Genomics

Event Date: Tuesday 21st June – Wednesday 22nd June, 2022

Venue: The Pirbright Institute, Ash Road, Pirbright, Woking, Surrey, GU24 0NF

Meeting Summary and scope

Since the start of the SARS-CoV-2 pandemic there has been a growing emphasis on the provision of genomics data to manage disease outbreaks. This is reflected in the numbers of SARS-CoV-2 genome sequences submitted to global databases. In future outbreaks of human and animal pathogens, as these technologies evolve and become more commonplace in both research and diagnostic settings, it is envisaged that genomics will play more prominent roles in both early identification and guiding outbreak governance. This 2-day meeting at Pirbright will focus on the application of genomics technologies in veterinary virology research (lab and *in-silico* based), but also facilitate networking and information exchange between both veterinary research and animal health diagnostics communities. It is this interface between both research and diagnostics that will contribute directly to the discussion surrounding the suitability and applications of these technologies for the early detection of future pandemics or zoonotic events.



Meeting Topics

- **The use of innovative genomics techniques in animal virology.**
- **Discuss challenges in coordinating genomics surveillance networks and infrastructure in future outbreaks.**
- **Improving training within/between testing labs – levelling up.**
- **Are Genomics technologies useful for surveillance settings?**
- **How to maximise efficiency and value in bioinformatics/genomics data analysis?**
- **What provisions are needed to enhance genomics in different resource settings**
- **To characterise future challenges of genomics in veterinary virology and animal health and its relation to One Health.**



Speakers Day 1: Sequencing and Governance

Steven van Borm, Sciensano	NGS and molecular diagnostics workflows in veterinary virology
Natacha Couto, University of Bath/UMC Groningen	Roles for Metagenomics in outbreak tracing/ESCV guidelines
Alice Fusaro, IZSV	Avian Influenza and HTS/application of targeted approaches
Sten Calvalege, FLI	Whole genome sequencing of ASFV: Different sequencing strategies & Different Genotypes
Sarah Hill, Royal Veterinary College	Nanopore sequencing in veterinary virology
Gerald Mizuno, SACIDS	Nanopore sequencing in the field in Africa
Dr. Sofonias Kifle (African-Union)	Building Genomics capacity for pathogen surveillance in Africa
Claudia Bachofen, University of Zurich	Applications and experiences using virome analysis in veterinary diagnostic and research
Oliver Lung, Canadian Food Inspection Agency	HTS automation and increasing throughput at the Canadian Food Inspection Agency's National Centre for Foreign Animal Disease
Charles E Lamien, IAE/FAO	FAO/OIE joint initiative: Genomics data and governance supporting Genomics in low resource settings
Livio Heath, ARC-Onderstepoort Veterinary Research	OIE coordinated genomics based response to ASF incursions in South Africa
Helen Roberts, DEFRA	DEFRA: Where Genomics meets policy: translating impact

Speakers Day 2: Bioinformatics and Genomics

Oliver Pybus, University of Oxford	Virus genomic epidemiology for animal and human health
Nick Loman, CLIMB/University of Birmingham	CLIMB - cloud Infrastructure and big data integration and other large projects
Don King, The Pirbright Institute	Providing access to FMDV genomic data via online databases: FMDV Dashboard
Richard Orton, Centre for Virus Research	Role of OIE:MRC CVR as an OIE centre for provision of bioinformatics training
Ke Yuan, University of Glasgow	Applications of Machine learning in veterinary virus genomics
Julie Shapiro, Texas Tech University	Setting the Terms for Zoonotic Diseases: Effective Communication For Research, Conservation, and Public Policy
Jonna Mazet, UC Davis	SPILLOver: Ranking the risk of animal to human pathogen spillover for novel viruses
Michelle Wille, University of Sydney	Virus surveillance at the animal human interface

Hotel and Accommodation

Hotel rooms have been reserved for the meeting at the nearby venue:

[Surrey - DoubleTree by Hilton Woking](#)

Discounted room rates available: £135 for per nights (inc. breakfast).

Meeting Queries

Contact: graham.freimanis@pirbright.ac.uk

Online Participation/links

The meeting will now be both in-person and online. Further details of the online component will be listed on our webpage.

Please register at the below link for more details

Link To Register Attendance

(in-person/online): The link to register your interest (below)

[Present and Future Challenges in Veterinary Virus Genomics Tickets, Tue 21 Jun 2022 at 08:30 | Eventbrite](#)



Meeting Website/Speaker Programme

[http: www.avgenomics.org](http://www.avgenomics.org)

Twitter: [@BSP_Pirbright](https://twitter.com/BSP_Pirbright)



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