

Send us your news to evbc@uni-jena.de.

For more frequent updates, please follow us on Twitter [EVirusBioinfC](https://twitter.com/EVirusBioinfC).

Selected Publications by EVBC Members

[All publications on Pubmed](#)

Analysis of 28 terabases of Global Ocean RNA sequences expands Earth's RNA virus catalogs. (Science: [10.1126/science.abm5847](https://doi.org/10.1126/science.abm5847))

Critical Assessment of Metagenome Interpretation: the second round of challenges. (Nat Methods: [10.1038/s41592-022-01431-4](https://doi.org/10.1038/s41592-022-01431-4))

Quantifying rates of HIV-1 flow to determine HIV-1 'hotspots' and their contribution to HIV-1 transmission in Kenya. (Virus Evol: [10.1093/ve/veac016](https://doi.org/10.1093/ve/veac016))

Phylogenetic estimation of the viral fitness landscape of HIV-1 set-point viral load (SPVL) shows evidence of selection against low values of SPVL in HIV-1 subtype-B strains, likely related to lower infectiousness. (Virus Evol: [10.1093/ve/veac022](https://doi.org/10.1093/ve/veac022))

DRUMMER-Rapid detection of RNA modifications through comparative nanopore sequencing. (Bioinformatics: [10.1093/bioinformatics/btac274](https://doi.org/10.1093/bioinformatics/btac274))

Computational modelling of the pseudoknot motif provided a fine-grained picture of the tertiary structure and local arrangement of helices in the bovine viral diarrhoea virus IRES RNA. (RNA Biol: [10.1080/15476286.2022.2058818](https://doi.org/10.1080/15476286.2022.2058818))

hCoronavirusesDB: open-access, integrated resource for SARS-CoV, SARS-CoV-2, and MERS-CoV nucleotide and protein sequence data. (Database (Oxford): [10.1093/database/baac017](https://doi.org/10.1093/database/baac017))

ICTV Virus Taxonomy Profile: Chaseviridae 2022 (J Gen Virol: [10.1099/jgv.0.001715](https://doi.org/10.1099/jgv.0.001715))

Comprehensive analysis of genomic evolution of the Coronaviridae family. (Virology: [10.1016/j.virol.2022.03.005](https://doi.org/10.1016/j.virol.2022.03.005))

virome diversity of riverine ecosystems in metropolitan areas: rivers and limnic habitats are relevant ecosystems with circulation of marnaviruses as well as a plethora of unknown picorna-like viruses. (Front Microbiol: [10.3389/fmicb.2022.865287](https://doi.org/10.3389/fmicb.2022.865287))

Metagenomic investigation of the equine faecal microbiome reveals extensive taxonomic diversity. (PeerJ: [10.7717/peerj.13084](https://doi.org/10.7717/peerj.13084))

Reviews / Commentaries / Editorials

Mathematical models to study the biology of pathogens and the infectious diseases they cause. (iScience: [10.1016/j.isci.2022.104079](https://doi.org/10.1016/j.isci.2022.104079))

Preprints

MetaPhage: an automated pipeline for analyzing, annotating, and classifying bacteriophages in metagenomics sequencing data. (bioRxiv: [10.1101/2022.04.17.488583](https://doi.org/10.1101/2022.04.17.488583))

Philympics 2021: gold-standard bacterial genomes with manually curated prophage annotations, and a computational framework to compare the predictions from different algorithms. (F1000Research: [10.12688/f1000research.54449.2](https://doi.org/10.12688/f1000research.54449.2))

Tools and Resources

[Virus tools website](#)

DRUMMER: Detection of RNA modifications in nanopore direct RNA Sequencing datasets.

GRAViTy: Genome Relationships Applied to Virus Taxonomy.

MetaPhage: nextflow pipeline for automatic phage discovery.

PHIST: Phage-Host Interaction Search Tool.

Vacancies

[Find a job](#)

4 Postdoctoral positions on Human-Virus Genomics on the roles of Human Endogenous Retroviruses (HERVs) in health and disease will soon become available in the Applied Evolutionary Virology Group at the National and Kapodistrian University of Athens.

Contact: [Gkikas Magiorkinis](mailto:Gkikas.Magiorkinis@uni-jena.de)

Upcoming Events

[Subscribe to Calendar](#)

ProkaGENOMICS 2022: From Small Viruses to Complex Communities

25–28 September 2022 | Göttingen, Germany

Abstract submission deadline: [02 May 2022](#)

24th Annual Conference of the ESCV

7-10 September 2022 | Manchester, UK

Abstract submission deadline extended: [09 May 2022](#)

Early registration deadline: [30 May 2022](#)

14th International dsRNA Virus Symposium

10-14 October 2022 | Banff, Canada

Abstract submission deadline: [01 June 2022](#)

viruses *in silico* lecture series

[Register](#)

Nanopores – is there anything they can't do?

23. May 2022 | 04–05 pm CEST

[online](#)

Daniel Depledge, Hannover Medical School, Germany

Decoding viral transcriptomes by conventional RNA sequencing approaches is complicated by several factors which can be overcome by nanopore direct RNA sequencing. In this talk, Daniel will highlight several annotation studies and crucial computational tools.

EVBC Workshops

[Register](#)

Nanopore Sequencing Workshop 2022

23.–25. Mai 2022 | 10:00am–05:00pm CEST [FSU Jena, Germany](#)

S. Krautwurst & A. Srivastava, FSU Jena, Germany

Introduction to the Nanopore sequencing technology, sample preparation, real-time analysis, base calling and read quality control, read processing and possible fields of application.

A practical introduction to software testing in Python

9./10. June 2022 | 9:30am–12:30pm CEST

[online](#)

Terry Jones, Charité – Universitätsmedizin Berlin, Germany

Bioinformatics software is often written by people with little or no formal training in software engineering and packages frequently have not a single test. This two-day course will provide a practical introduction to software testing.

ECR Viromics Webinar Series

[Register](#)

5th International Viromics Workshop: Viromics mini-Symposium

11 May 2022 | 09:15–17:45 CEST

[online](#)

Viromics overview (S. Roux) | Oceans overview (A. Zayed) | Soils overview (J. Emerson) | Host-associated overview (A. Varsani)

Member Profile: Luca Nishimura



Name: Luca Nishimura
Position: PhD student at SOKENDAI in Japan
Research focus: ancient viruses



What do you love about viruses?

Their great diversity and evolutionary histories

On what topic could you give a 30-min talk without preparation?

Ancient viruses discovered from archaeological samples

What is your favourite way to spend a day off?

Playing the violin by myself or with my friends, listening classical music, and watching various kinds of movies (except horror ones)

What are you currently learning?

Many things related to my research, such as machine learning, viral evolution, population genetics, etc

What is the most interesting unanswered question in science?

The origin of viruses

What is the coolest thing about your research?

I am not only focusing on ancient pathogenic viruses but also non-pathogenic ones such as ancient bacteriophages.

What do people think about you that isn't true?

I am interested in evolution because of my name LUCA (last universal common ancestor). It is just a coincidence.

For which project idea are you looking for a cooperation partner?

I would like to collaborate with researchers working on viral evolution and ancient DNA.

Which scientific topic (outside of your field of research) do you think should have more scientific attention?

Genetics of rare diseases

If you were completely free to choose a scientific topic to work on, which would it be?

A topic related to virology

If you had the option to give advice to a younger version of yourself, what would that be?

Try as many things as possible based on your passions.

Is there anything else you would like to share with other EVBC members?

I am greatly honored to be an EVBC member and looking forward to discussing and collaborating with you!

Member Profile: Jens H. Kuhn



Name: Jens H. Kuhn
Position: Principal Scientist and Director of Virology
Research focus: Pathogenesis and Medical Countermeasure Development and Evaluation of Risk Group 4 viruses/Taxonomy and evolution of viruses



[Full interview online](#)

What do you love about viruses?

Everything

On what topic could you give a 30-min talk without preparation?

Anything filovirus; most things Risk Group 4 viruses; Soviet bioweapons program; everything virus taxonomy; scientific literature mining

What is your favourite way to spend a day off?

Learn new things/reading; spending time with my family

What are you currently learning?

Chinese

What is the most interesting unanswered challenge in science?

Why do we sleep?

What is the coolest thing about your research?

The slow grasping of the absolute vastness of replicator sequence space and how the interactions of reproducers and replicators reciprocally shape evolution

What was your most surprising scientific finding?

That Ebola virus persists in survivors for many years and can reactive and spur new outbreaks

What was your biggest achievement / your biggest failure?

Biggest achievements: creation of a megataxonomic framework for viruses/delineation of the virosphere/first operation definition of "virus" since the 1960s; biggest failure (thus far): communication of the importance of taxonomic frameworks to the virology community

Which scientific topic (outside of your field of research) do you think should have more scientific attention?

Non-organismal, non-viral replicative elements as possible causes of disease

If you were completely free to choose a scientific topic to work on, which would it be?

Sociologic/historic study of "dark" scientific literature (i.e., the scientific works not indexed in the three major databases everybody uses and that in non-English languages) to evaluate whether the astounding ignorance of that huge body of important work cost us billions in redundant or superfluous work and years in scientific progress

If you had the option to advise a younger version of yourself, what would that be?

Pay attention in school; and realize teachers don't know anything but you need to repeat their stuff to get the pieces of paper that allow you to actually learn things later.