Philippe LEMEY
Klinisch & Translationeel Onderzoek

The 2023 Francqui Prize in Clinical and Translational Research is awarded to Professor Philippe Lemey who is undoubtedly among a handful of global leaders in the field of computational biology specialised in viral phylogeny and phylodynamic analysis. Trained both in pharmaceutical sciences and in bioinformatics, he combines insights in infection biology with the development of computational tools to understand origins and evolution of viruses of global public health importance. Basic insights from his fundamental research on viral replication processes have been incorporated in the development of software tools that within a short period of time have become the working horses of virology, viral bioinformatics, and viral epidemiology. He has developed and co-developed key bioinformatics tools that have revolutionised the field of virology and our understanding of how viruses evolve, spread, cause impact and can be controlled.

In addition to its methodological value, his work has facilitated broad uptake, thanks to the user friendliness of the software produced, the open sharing of code, and his highly valued courses. Philippe Lemey has been a core teacher, training the new leaders in this field globally. His publication record testifies to the global impact of his work, addressing key questions in our understanding of emergence, spread, evolution and effectiveness of control measures of several major viral pathogens. These include the viruses causing Covid-19, dengue fever, Ebola haemorrhagic fever, acquired human immunodeficiency syndrome, Lassa fever, measles, rabies, rinderpest, swine influenza, West Nile fever and yellow fever.

The field of viral genomics is one of the most rapidly evolving fields in science, raising important new challenges that require fundamentally new ways of exploring viral evolution. Philippe Lemey is well positioned to continue to lead the field in a new era of big data applications needed to understand virology now and in the future.