Prestigious Francqui-Collen Prizes 2023 go to pioneering cancer research and the global workhorse of virology

Brussels, 25 May 2023 – Laureates Sarah-Maria Fendt (KU Leuven/VIB) and Philippe Lemey (KU Leuven) have been lauded by the international jury for their research on cancer cell metastasis and real-time genetic mapping of viruses.

It is the second time since 2020 that the Francqui Foundation has awarded its prestigious Francqui-Collen Prize in biological and medical sciences to two laureates. This year, the honour falls to two researchers from KU Leuven: Sarah-Maria Fendt, who is also affiliated with VIB, is awarded the 2023 Francqui-Collen Prize in Fundamental Biomedical Research, and Philippe Lemey, a researcher at the Rega Institute is awarded the 2023 Francqui-Collen Prize in Clinical and Translational Research. The international jury commended the laureates for their pioneering work, inspirational role and global impact of their research.

Cancer cell nutrients

Belgian-German Sarah-Maria Fendt (42) focuses her fundamental research on the metastasis of cancer cells, specifically on the nutrients cancer cells need to proliferate in other parts of the body. Fendt and her team have found that those cells eat differently as they spread to other organs, in a process called metastasis formation. In addition, her research has shown that by targeting the processing of nutrients, the spread of cancer cells and their proliferation in distant organs can be decreased. Today, most cancer patients die from metastasis; the discoveries by Fendt and her team open the door to new, life-saving treatments.

Fendt is not only looking at the nutrition of proliferating cancer cells, but also at what patients eat. In research on mice, she has found that a high-fat diet favours the spread of cancer. In a forthcoming study, Fendt and her team want to see whether certain diets can also prevent the spread of cancer.

"BEAST" against virus outbreaks

With his applied research, Belgian Philippe Lemey (45) has built important tools in the fight against the spread of viruses. These tools, implemented in the software "BEAST", map the genetic code of viruses in real time, allowing governments and health workers to get a clearer view of a virus outbreak faster and take immediate action to stop further spread. For instance, the programme was instrumental during the Ebola epidemic in West Africa (2014-2016) and the Lassa outbreak in Central Africa (2018).

Today, the software programme, which Lemey has been contributing to since 2004, is considered the global workhorse of genomic epidemiology. It has revolutionised virology and our understanding of how viruses evolve, spread, what impact they cause and how they can be controlled.
About the Francqui Foundation

The Francqui Foundation is founded in 1932 by Belgian military man, businessman and diplomat Emile Francqui and then-US President Herbert Hoover. The aim of the Foundation is to promote the development of research and scientific exchange in Belgium. It promotes fundamental, altruistic research and inter-university cooperation through initiatives such as the Francqui Prize for young Belgian scholars, the Francqui and International Francqui Professor Chairs, research professors, “start-up grants” and scholarships in cooperation with the Belgian American Educational Foundation.

The Francqui Prize is awarded annually to scholars under 50 years of age. The Prize is alternately awarded to exact sciences, humanities and biological and medical sciences. In the latter category, the international jury awards two prizes, following a donation in 2020 from Belgian biotech pioneer Désiré Baron Collen. Those prizes bear the name Francqui-Collen Prize.

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