

Personal statement for application as DNCC member



My name is Laurane De Mot. I am a trained bioengineer, having completed my studies at the Université Libre de Bruxelles (Belgium), including a 6-month Erasmus exchange at the Università degli Studi di Milano (Italy), followed by an additional 6-month university program in biostatistics. I hold a PhD in the mathematical modelling of gene networks involved in embryonic development and stem cell biology, awarded by the Université Libre de Bruxelles with collaborations with the Université de Strasbourg (including one-year exchange) and the Université de Clermont-Ferrand (France).

I then worked in the pharmaceutical sector for six years, including three years as a postdoctoral researcher in vaccine research at GSK Vaccines, in a project funded by the Bill & Melinda Gates Foundation. My research focused primarily on adjuvant science, particularly in the context of malaria and tuberculosis vaccines. My area of expertise was systems biology applied to immunology—specifically, the analysis of omics data to understand and predict immune responses to vaccination and infection in humans. As part of this work, I collaborated with the team of Bali Pulendran (then at Emory University, now at Stanford University) and spent several months working in the United States. I also worked closely with clinical study teams, whose samples and associated data we analyzed.

When my postdoctoral research ended, I joined UCB, a pharmaceutical company specializing in immunology and neurology, where I applied systems biology approaches to the understanding of neurological diseases, primarily epilepsy.

When COVID-19 emerged, I felt compelled to use my data analysis skills to contribute to managing the pandemic. I therefore joined Sciensano, the Belgian public health institute. I initially worked as a data manager and analyst in the team responsible for hospital-based COVID-19 surveillance. After one year, I became the head of that team, which later merged with the team previously in charge of influenza surveillance. I have been leading this merged and growing team for the past 1.5 years, which now includes eight people.

Our team manages the Belgian SARI (Severe Acute Respiratory Infections) surveillance system, collecting data from various sentinel and non-sentinel sources to publish a weekly report and provide health authorities with ongoing assessments of the epidemiological situation related to respiratory infections. In addition, we monitor vaccine effectiveness at both the national level and through participation in VEBIS. Over the past year, we have focused particularly on analyzing the impact of nirsevimab on pediatric RSV. We are also involved in developing systems that can respond better and/or more rapidly in the event of a new pandemic. Finally, one team member is dedicated to preparing protocols and systems for responding to and monitoring potential human cases of zoonotic influenza.

Although my experience in public health is relatively recent, I believe that my diverse background, current leadership role, and my position as NFP/OCP for Epidemiology (COVID-19, Influenza, and SARI) make me a good candidate to join the DNCC.

Thank you for considering my candidacy.

Laurane De Mot