



Curriculum Vitae

Personal information **Happy Gowin Phanio Djokoto**

Work experience

1. Employer: unamur
 - Start date: 092021
 - End date:
 - Position: assistant and PHD student
 - Activities:
 - Country: Belgium

Education and training

1. Subject: Unamur
 - Start date: 092021
 - End date:
 - Qualification: Modelling and Simulation/ Pharmacokinetics
 - Organisation: Modelling and Simulation/ Pharmacokinetics
 - Country: Belgium

Additional information

Publications

Although I do not yet have accepted publications, I have been actively involved in several applied and methodological research projects in the field of pharmacology, pharmacometrics, and model-informed drug development (MIDD). These projects include both independent academic initiatives and collaborative efforts, with a focus on regulatory-relevant applications such as pediatric extrapolation, clinical trial optimization, and model assessment. As part of a collaborative research project, I contributed to the investigation of the longitudinal decline in adaptive immune responses following two doses of a COVID-19 vaccine. This work involved data synthesis and statistical evaluation of immune markers to better understand the timing and rationale for booster dose strategies. In an academic research setting, I conducted a detailed exploration of study design optimization strategies in the context of pediatric PK extrapolation. Using simulation-based approaches and tools like PopED, I evaluated how suboptimal designs can arise due to discrepancies between assumed and true pediatric models. This project highlighted the importance of model qualification and robustness assessment in regulatory pediatric submissions. I am currently extending my research to address PK/PD-based pediatric extrapolation, focusing on the simultaneous optimization of dose selection and efficacy prediction under model uncertainty. The project uses one case study with the aim of developing actionable methodologies that support regulatory decision-making while minimizing unnecessary pediatric exposure.

Projects

Memberships

Other Relevant Information

I am a pharmacologist and scientific researcher with a specialized focus in pharmacometrics, particularly in the application of PK/PD modeling and design optimization to support rational and evidence-based drug development. My work is anchored in enhancing the translation of preclinical and adult clinical data to pediatric populations, with a specific interest in model-informed drug development (MIDD) strategies. I actively investigate strategies to optimize study designs using tools such as PopED, especially in the context of pediatric extrapolation. This includes evaluating how parameter uncertainty and model misspecification impact optimal design performance. I develop and evaluate PK and PK/PD models across different populations, using both traditional and non-linear mixed-effects modeling approaches. I am well-versed in the use of software such as NONMEM, Monolix, and R for population modeling, and I conduct rigorous model qualification including diagnostic plots, bootstrap resampling, visual predictive checks, and simulation-based diagnostics. A significant portion of my research is devoted to evaluating the utility of in silico data in regulatory decision-making, particularly in the context of pediatric indication extension. I am exploring regulatory frameworks to define how in silico evidence can support efficacy or dosing rationale, and the limitations thereof, in line with EMA's vision for enhanced model-based submissions. A significant portion of my research is devoted to evaluating the utility of in silico data in regulatory decision-making, particularly in the context of pediatric indication extension. I am exploring regulatory frameworks to define how in silico evidence can support efficacy or dosing rationale, and the limitations thereof, in line with EMA's vision for enhanced model-based submissions.