Speaker Name: Maiara Montanha

Presentation Title: "Accelerating Innovation: The Role of In Silico Modelling in Drug Product R&D"

Abstract: *In this seminar, I will share my personal experience transitioning from academia to industry, outlining the overall workflow within the pharmaceutical sector from a research and development perspective, with a particular focus on drug product development. It will introduce how in silico modelling—specifically physiologically based pharmacokinetic (PBPK) modelling—is used in drug product development to accelerate progress and reduce risks/costs. Attendees will gain insight into the practical application of these modelling tools within this field and learn about their impact on streamlining drug development processes.*

Short Biography: *Maiara has extensive expertise in biopharmaceutics, pharmacokinetic (PK) data analysis, PK modelling, metabolism, and clinical pharmacology. With a Ph.D. in Biosciences and Physiopathology, she has worked at Pfizer and now holds a position at Bristol Myers Squibb. Throughout her career, Maiara has gained hands-on experience in predicting human PK across various stages of drug development—including preclinical, post-first-in-human (FIH), and post-filing. She applies physiologically based pharmacokinetic (PBPK) models to understand factors affecting oral absorption, guide solid form and formulation selection, inform clinical trial design, elucidate the PK/PD relationship, and integrate insights on active pharmaceutical ingredient (API) properties (such as solid form, particle size, and shape) as well as formulation and drug delivery technologies (e.g., immediate release [IR] vs. modified release [MR], amorphous solid dispersion). Maiara also acts as a UK STEM Ambassador; is a member of the APS Biopharmaceutics Focus Group (Academy of Pharmaceutical Sciences - UK) and is part of the leadership team for the AAPS OBAM (Oral Biopharmaceutics and Absorption Modelling) Community.*