

Lecture Title:

Route Scouting for Kilogram-Scale Manufacturing of API's *Brain breaker for real organic chemists*

Abstract: Following the identification of a new active pharmaceutical ingredient (API), rapid material supply is required to support preclinical and clinical development. Conflicting with this urgent need for material, the early stage chemistry is often underdeveloped and not suitable for large-scale manufacturing. To meet the high-quality demands of an efficient API production process, a deep understanding of the chemistry and a creative, solution-powered mindset is required. In this presentation, a systematic approach is discussed on how to efficiently create, prove, and improve a chemical process producing a prospective API. The interplay of literature research and experimental work, as well as frequently observed stages encountered during route scouting/route development will be covered. Finally, criteria on how to select a potential synthetic route for a route scouting program and common optimization strategies will be part of this presentation.



About the speaker: Martin Strack received his Ph.D. from the Ruhr-University Bochum (RUB) after completing studies in Bioinorganic Chemistry in Bochum, Germany and Organic Chemistry in Montréal, Canada. In 2016, he joined the Process Research Department of MercachemSyncom at the Nijmegen facilities. As Senior Scientist, he completed successfully a number of PR&D projects including route scouting/route optimization studies, impurity syntheses, and catalyst optimizations. Since 2019, Martin has taken a new role as Project Manager and is supervising diverse projects in process research and development (PR&D).