



SOCIÉTÉ CHIMIQUE DE GENÈVE

# HTE Chemistry to Accelerate Medicinal Chemistry Programs

**Dr Fabio Lima**

*Novartis Pharma AG, Novartis Campus, CH-4056 Basel, Switzerland*

High-throughput experimentation (HTE) has emerged as a powerful tool in medicinal chemistry to accelerate drug discovery programs by rapidly screening and optimizing reaction conditions. The work carried out on the **SynTech Catalysis Laboratory**, specializes in HTE reaction condition screenings to remove synthetic bottlenecks throughout the medicinal chemistry portfolio within the Global Discovery Chemistry (GDC) organization of Novartis Biomedical Research.

Our lab specializes in the optimization of metal-catalyzed reactions commonly encountered in drug discovery programs, including metal-catalyzed cross-coupling reactions, hydrogenations, carbonylations, and asymmetric hydrogenations. We developed automated workflows and advanced crude analytical techniques to be able to rapidly screen many reaction conditions in parallel, allowing for systematic and efficient optimization of reaction parameters, such as catalysts, ligands, bases, solvents, and additives. This approach not only accelerates access to complex chemical matter for medicinal chemistry programs but also generates clean and reliable data for making informed decisions in the subsequent reaction optimization stages.

This talk will introduce some case studies showcasing the successful application of our HTE approach in accelerating drug discovery programs, overcoming synthetic challenges, and improving the efficiency of medicinal chemistry efforts.

Conférence présentée le

**LUNDI 3 FEVRIER 2025 à 17h30**

**Université de Genève – Bâtiment Science II**

**Auditoire A-100**

**30 quai Ernest-Ansermet Genève**

*La conférence est publique*

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