

Masaryk University (MU) – Laboratory of Organic Synthesis and Medicinal Chemistry

Masaryk University, Kamenice 5, Brno, Czech Republic



Dr. Kamil Paruch (Head of Unit)

„We support the challenges of biological research with state-of-the-art expertise in medicinal chemistry.“

At a glance

- History of successful collaboration within chemical biology projects
- Long-term expertise in identification of new (patentable) organic compounds with targeted biological activity
- Strong track record in identification of new kinase inhibitors

Infrastructure and technical focus

- Facilities in new campus
- More than 20 fully equipped workplaces for organic synthesis
- State-of-the-art technology for purification and structural characterization of organic compounds

Projects past and present

2020 - 2022 | CZ-OPENSREEN National infrastructure for chemical biology ➔ [Link](#)

2019 - 2023 | EU-OPENSREEN DRIVE Ensuring long-term sustainability of chemical biology services within Europe and beyond ➔ [Link](#)

2018 - 2022 | PRECLINPROGRESS Preclinical progression of new compounds with targeted biological activity ➔ [Link](#)

Our science in selected publications

Novel Chk1 inhibitor MU380 exhibits significant single-agent activity in TP53-mutated chronic lymphocytic leukemia cells
➔ [Haematologica 2019, 104, 2443](#)

Furo[3,2-b]pyridine: A novel privileged scaffold for highly selective kinase inhibitors and effective modulators of the Hedgehog pathway
➔ [Angewandte Chemie 2019, 58, 1062](#)

A concise synthesis of forskolin
➔ [Angewandte Chemie 2017, 56, 12586](#)

The CHK1 inhibitor MU380 significantly increases sensitivity of human docetaxel resistant prostate cancer cells to gemcitabine by induction of mitotic catastrophe
➔ [Molecular Oncology 2020, 14, 2487](#)

Further info and site-contact

Dr. Kamil Paruch: paruch@chemi.muni.cz | +42 (0) 549 49 5477

Website: <http://orgsyn.sci.muni.cz/>

