

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

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