Identification of new autophagy inhibitors and their targets

**THE PROJECTS**

- Phenotypic screening
- Target identification

**THE PEOPLE**

- Mads H. Clausen
- Luca Laraia
- Faranak Nami

**THE EQUIPMENT**

Modern labs for synthetic and analytical chemistry, NMR (2 x 400, 600, 2 x 800 MHz), 3 x GC(MS), 3 x HPLC, 3 x UPLC-MS(MS), 2 x prep HPLC (with PDA/ELS/MS detection), microwave synthesizer, parallel synthesis carousels and reaction blocks, automated peptide and oligonucleotide synthesizers, reactor for photochemical reactions, autoclaves, H-cube, IR, spectrophotometers (UV-vis, fluorescent, CD), MALDI-TOF, Q-TOF, CombiFlash/Grace purifiers.

**THE MEDCHEM**

Oncology, inflammation, infectious and metabolic disease. FBDD (Fragment Based Drug Design) and SBDD (Structure based Drug Design), synthesis of privileged and novel sp³-rich scaffolds, development of new synthetic methodologies, prodrug and analogue synthesis, focused library synthesis, multiparameter library optimization, virtual screening/computational chemistry/QSAR analysis, scaffold hopping. ADME profiling: Solubility, LogP/D, Caco-2, PAMPA, Microsomal stability, toxicity.

Binding kinetics and fragment-based screening (NMR, ITC, TSA), X-Ray.

**THE OUTPUT**

3. Angew. Chem. 2017, 56, 2145
5. Chem. Sci. 2018, 9, 3014

**DK-OPENSCREEN**

national infrastructure for chemical biology, four university partners

**Spin-outs:**
- GlycoSpot
- ROS Therapeutics
- IDYN Genomics

**THE FUTURE**

Expansion of compound collection and medchem personnel

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Chemistry site
KGS. LYNGBY

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DENMARK

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