

BBB seminar (BMED380)

Thursday, June 2, 14.30, at the BBB, Auditorium 4



Chemical epigenetics - targeting reversible histone acetylation

Manfred Jung

Institute of Pharmaceutical Sciences, Albert-Ludwigs-Universität Freiburg,
Germany

Our research focus is 'Chemical Epigenetics' and deals with the development and application of chemical and biochemical tools to dissect biological pathways, to validate therapeutic targets and to discover and optimize potential drugs addressing a wide range of epigenetic targets. In this talk histone deacetylation by zinc dependent (HDACs) and NAD⁺-dependent enzymes (Sirtuins, esp. subtype Sirt2) is covered. We have developed a wide range of biochemical and biophysical assays for these targets which have identified new hits. These were subsequently optimized in a structure-guided fashion for potency and selectivity and were converted into functionalized tools for chemical biology. E.g., we have developed a biotinylated Sirt2 inhibitor for chemoproteomic studies and a proteolysis targeted chimera (PROTAC) based on thalidomide.

Chairperson: Jan Haavik <jan.haavik@uib.no>, Department of Biomedicine