

Scilifelab Drug Discovery and Development Platform

Annette Roos

Biophysical Screening and Characterization Unit, SciLifeLab Drug Discovery and Development Platform, ICM,
Box 596, Uppsala University, 751 24 Uppsala, Sweden

The Drug Discovery and Development (DDD) Platform is a national infrastructure within SciLifeLab aimed at helping Swedish academic groups progress therapeutic ideas towards a pre-clinical proof-of-concept. We take on projects either with a small molecule focus, with an idea for an antibody therapeutic, or projects where an oligonucleotide can be developed into a drug.

The current portfolio consists of 5 small molecule, 6 antibody and 6 oligonucleotide programs. Our platform steering board evaluates all our projects biannually but project proposals are discussed and prepared continuously. In addition to full programs, we can take on smaller service projects where access to a single instrument or expertise is required. We dedicate a part of our resources into making new drug discovery technologies available to Swedish researchers. As an example, the platform has developed DNA-encoded chemical libraries that explore a large area of chemical space to find relevant starting points for small molecule drug discovery. We also have a synthesis route for PROTACS set up and are working on developing cellular and biophysical assays for identifying successful ternary complex formation.

The platform consists of 8 facilities with different areas of expertise, including assay development and HT compound screening, antibody generation, protein expression, biophysical characterization, medicinal chemistry, oligonucleotide synthesis and selection, pharmacological profiling, analysis of drug metabolism and pharmacokinetics data, and finally target safety analysis in collaboration with RISE.

For more information see <https://www.scilifelab.se/units/ddd-platform/>