

CBGE Platform Pipeline Project Call (CBGEPPP25) – Enabling multi-modal discovery

The SciLifeLab **Chemical Biology and Genome Engineering (CBGE)** platform (<https://www.scilifelab.se/servicearea/chemical-biology-and-genome-engineering/>) aims to transform phenotypic observations into mechanistic insights through a multidisciplinary approach combining chemical, proteomic, and genetic technologies. The platform consists of three units:

- **Chemical Biology Consortium Sweden (CBCS)**
- **CRISPR Functional Genomics (CFG)**
- **Chemical Proteomics (ChemProt)**

Scope of supported projects

1. This call supports projects that have a **clearly defined need for parallel services from more than one CBGE unit**.
2. A major focus is to investigate the **mechanism-of-action** and/or **molecular targets of small molecules**, for example compounds identified in phenotypic assays or other screening efforts. Projects focused on understanding mechanisms of **existing drugs**, or **drug repositioning/repurposing**, are equally suitable. Other therapeutic modalities beyond small molecules may also be considered.
3. We also welcome **project types other than MoA studies** that benefit from a multidisciplinary approach combining chemical biology, chemical proteomics, and functional genomics. Examples include (but are not limited to): Functional characterization of genetic perturbations, development of chemical tools or probes, investigations of cellular pathways relevant to health and disease, etc.

Relevant platform services

Chemical Biology Consortium Sweden (CBCS)

- Elimination of false positives (e.g., redox phenotypes, phospholipidosis)
 - In silico profiling and pan-assay interference assessment
 - Literature/database searches and target predictions
 - Structure–activity relationship studies
 - Synthesis of chemical tools and affinity probes
 - Compound profiling (toxicity, selectivity, viability)
 - Morphological profiling by cell painting
- <http://www.cbcs.se/>

CRISPR Functional Genomics (CFG)

- Genome-wide or custom pooled CRISPR loss-/gain-of-function screens
- Base-editing mutagenesis screens to study drug–target or protein-protein interactions
- Precision genome editing in cell lines for model generation and target validation
<https://www.scilifelab.se/units/crispr-functional-genomics/>

Chemical Proteomics (ChemProt)

- Proteome-wide deconvolution of drug targets
- Mechanism-of-action studies via PISA, redox proteomics, FITExP
- HDX-MS for binding site mapping
<https://www.scilifelab.se/units/chemical-proteomics/>

Eligibility and application process

Eligibility: Research group leaders at any Swedish university. SMEs are also welcome to apply.

Deadline: November 30, 2025, 14:00

⚠ Mandatory feasibility discussion: A feasibility discussion with CBGE must be scheduled well in advance, no later than November 14, 2025. To arrange this meeting, please contact Michaela Vallin (Project Coordinator) – michaela.vallin@ki.se

Application procedure:

- Use the application template available in Anubis: <https://anubis.scilifelab.se/>.
- Submit the finalized proposal as a single PDF file in Anubis under the call “CBGEPPP25.”

All submissions are treated as confidential and will only be shared with a limited group of CBGE personnel for evaluation under strict confidentiality. Approved projects will obtain cost-effective, prioritized access to CBGE technologies and services in parallel.

Contact information

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ChemProt services: Massimiliano Gaetani (Head of ChemProt) massimiliano.gaetani@ki.se