

Biorecognition unit & BiSS / Biophysics, Structural Biology and Screening (UiB)

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Prof. Aurora Martinez (Head of Unit)

„EU-OPENSREEN is a crucial collaborative network for the Univ. of Bergen lowering the access barrier to chemical biology facilities and drug discovery. In the Biorecognition unit, we are specialized in molecular and biophysical screens.“

At a glance

- Notable expertise in developing therapies for misfolding disorders and infectious diseases
- Managed by the core facility for Biophysics, Structural Biology and Screening (BiSS)
- Access to European Chemical Biology Library, European Academic Compound Library and Fragments
- Chemoinformatic services for hit follow up
- Determination of binding modes using X-ray crystallography
- Self-service access to instrumentation possible after training

Infrastructure and technical focus

- Molecular-based screenings of small molecules with isolated biomolecular targets
- High throughput screening using thermal shift assay (differential scanning fluorimetry)
- Surface plasmon resonance (SPR) and bio-layer interferometry (BLI) for fragment screening and hit validation
- Instrumentation for liquid handling
- Crystallization facility in house with automated monitoring of crystal growth

Projects past and present

2018 - 2021 | BIOTEK2021, RCN (A corrective therapy for acute intermittent porphyria)

➔ [Link](#)

2020 - 2024 | PRIME (Prevention and Remediation of Insulin Multimorbidity in Europe / H2020-SC1-2019-Two-Stage-RTD EU) ➔ [Link](#)

2018 - 2021 | BEDRE HELSE project (Structure-based exploration of targets for antibiotics)

2019 - 2023 | DLN project RESPOND³ (Towards better computational approaches and responsible innovation strategies in early drug discovery) ➔ [Link](#)

Our science in selected publications

Differential scanning fluorimetry in the screening and validation of pharmacological chaperones for soluble and membrane proteins Protein Homeostasis Diseases
➔ [Academic Press, 2020, pp 329-341](#)

Levalbuterol lowers the feedback inhibition by dopamine and delays misfolding and aggregation in tyrosine hydroxylase
➔ [Biochimie 2020, S0300-9084\(20\), 30322-9](#)

Targeting the Class A Carbapenemase GES-5 via Virtual Screening
➔ [Biomolecules 2020, 10\(2\), 304](#)

A Pharmacological Chaperone Therapy for Acute Intermittent Porphyrria
➔ [Molecular Therapy 2020, 28\(2\), 677-689](#)

Further info and site-contact

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