**At a glance**

- Independent non-profit research organization welcoming academic and industrial collaborations
- Research within bioprocess development, biomaterials, immunotherapy, vaccines, gut health, drug delivery and nanomedicine
- Biochemical, microbial and mammalian cell-based high-throughput screening
- Advanced cell models (incl. spheroids, barrier, biofilm), coupled to advanced reporter assays
- Functional screening of patient cells for personalized medicine
- High-sensitivity and in-depth analysis including transcriptomics, metabolomics, proteomics and lipidomics

**Infrastructure and technical focus**

- Four automated liquid handling robots, fully integrated with FACS, high-content confocal imaging, and all available detection technologies
- Fully automated cell cultivation robotics with image-based readouts
- Biosafety Level 1 and 2 laboratories, specialized for viruses, eukaryotic and microbial cell-based screening
- High-throughput mass spectrometry
- Bioreactors for bioproduction from micro- to pilot scale

**Projects past and present**

- **2020** | Novel treatment for neuronal reoxygenation injuries (Development of inhibitors to undrugged DNA repair enzymes)
- **2019** | PRESORT Functional drug screening as clinical decision support in colorectal cancer
- **2017 - 2021** | H2020 REFINE Risk-benefit assessments of medical products and devices based on nanomedicines and biomaterials [Link]

**Our science in selected publications**

- High-throughput screening reveals higher synergistic effect of MEK inhibitor combinations in colon cancer spheroids [Report (2020), 10, 11574]
- A high-throughput drug combination screen of targeted small molecule inhibitors in cancer cell lines [Data (2019), 6, 237]
- Identification of Regulatory Genes and Metabolic Processes Important for Alginate Biosynthesis in Azotobacter vinelandii by Screening of a Transposon Insertion Mutant Library [Frontiers in Bioengineering and Biotechnology (2020), 7, 475]
- Engineering chitinolytic activity into a cellulose-active lytic polysaccharide monooxygenase provides insights into substrate specificity [Journal of Biological Chemistry (2019), 294, 50, 19349-19364]

**Further info and site-contact**

- **Geir Klinkenberg** (Research Manager)
  
  „We offer state-of-the-art infrastructure and extensive experience in assay development and high throughput screening including toxicity, and antibacterial- and antifungal activity. We also offer activity assays towards a range of mammalian cell lines.“

- **Geir Klinkenberg:** Geir.Klinkenberg@sintef.no | +47 (0) 776 492 61
- **Website:** https://www.sintef.no/en