

Details

BIH Stem Cell Core Facility (BIH-SCC)

Pluripotent stem cells combined with state of the art cell engineering techniques are unique tools helping scientists pinpointing disease-causing mutations to specific cellular mechanisms enabling the development of novel therapeutic approaches. The mission of the BIH Stem Cell Core Facility is to support basic and translational research by facilitating all aspects of human induced pluripotent stem cell (hiPSC) technology including the derivation, differentiation, genetic editing and distribution of human iPS cell lines. Additionally, the facility provides scientists with state of the art protocols and techniques for proper handling and manipulation of hPSC and also the infrastructure for incomming scientists. Furthermore, the Core Facility regularly organizes hands-on training courses of standardized pluripotent stem cell culture techniques. Project specific service fees will be calculated individually after project consultation

Address: Augustenburger Platz 1 13353 Berlin Berlin Deutschland <u>To website</u>

Host Institution

Charité - Universitätsmedizin Berlin Charitéplatz 1 10117 Berlin Berlin Deutschland http://www.charite.de Max-Delbrück-Centrum für Molekulare Medizin in der Helmholtz-Gemeinschaft (MDC) Robert-Rössle-Str. 10 13125 Berlin Berlin Deutschland http://www.mdc-berlin.de **Berlin Institute of Health** Anna-Louisa-Karsch-Str. 2 10178 Berlin Berlin Deutschland https://www.bihealth.org

Scientific Domain

Primary Subjects:

- Biology
- Medicine

Secondary Subjects:

- Physics
- Mechanical and Industrial Engineering

Category

Cell Culture or Virus Production Facilities

Scientific Services

- Isolation of primary cells from patient samples and Reprogramming of cells into induced pluripotent stem cells (e.g using Sendai virus, Episomal plasmids, mRNA or Lentiviruses) - Characterization and Quality Control of hPSC - Gene editing and cell labeling (Gene KnockOut, KnockIn of transgenes e.g. GFP, introduction and correction of mutations using CRISPR/Cas, TALEN or Lentiviruses) - Provision of hiPSC reference lines and banking - Provision of hiPSC

derived differentiated cells - Organoid technologies - Provision of standardized protocols - Project consultancy - Training (offered courses, direct supervision) - fully equipped cell culture lab (incl. hypoxia-incubators, picking hoods, fluorescence microscope)

Scientific Equipment

- MACSQuant TYTO ((Milteny, FACS Sorter)
- MACSQuant VYB (Milteny, FACS Analyser)
- QuantStudio 6 (Thermo, Real-Time PCR)
- Cell3imager (Screen, Plate Imager)
- PIPETMAX 268 (Gilson, pipetting robot)
- EmbryoS@fe (Sysmex, Safety Cabinet with integrated Microscope)
- Neon (Thermo, electroporation)
- 4D-Nucleofector System (Lonza, electroporation)
- CellenONE (Scienion, single cell dispenser)
- Chromium controller (10X Genomics, scRNAseq)

Keywords

- human pluripotent stem cells
- Characterization
- Quality Control
- Organoide
- Training
- Differentiation
- Genome editing
- Reprogramming
- cell culture

Networks

PluriCore - Pluripotent Stem Cell Core Facility Network http://gscn.org/en/RESOURCES/GermanStemCellCores.aspx

Stem Cell COREdinates https://coredinates.org/

Users per annum

Internal Users: 60 External Users in total: 10 External Users: 10 External Users in the EU: -External Users outside of EU: -