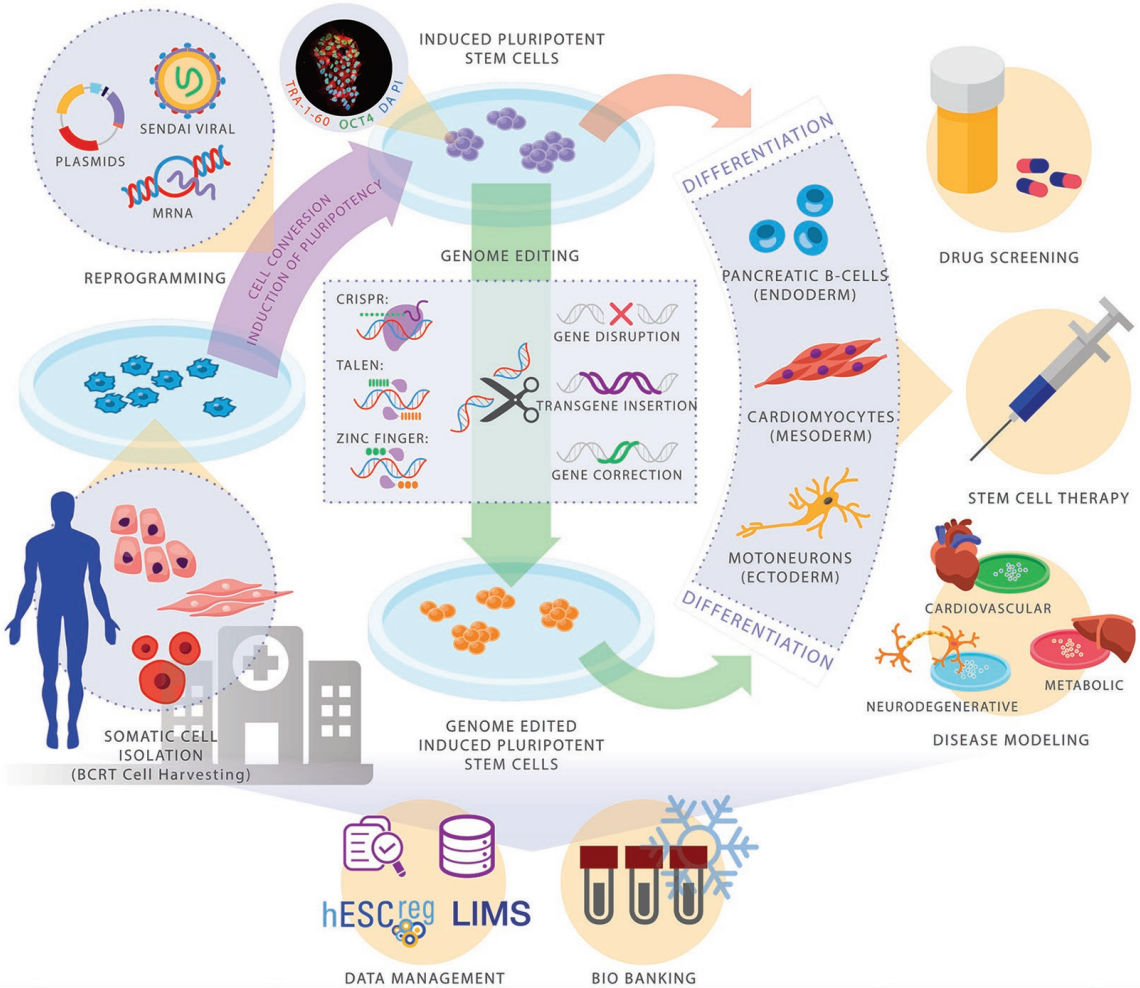
STEM CELL CORE FACILITY

BERLIN INSTITUTE OF HEALTH
Charité & Max Delbrück Center

HUMAN INDUCED PLURIPOTENT STEM CELLS (HIPSC) AS A MODEL SYSTEM FOR TRANSLATIONAL APPLICATIONS



SOMATIC CELL ISOLATION	REPROGRAMMING + CHARACTERIZATION	BANKING + PROVISION	DIFFERENTIATION	STANDARDIZED PROTOCOLS	TRAINING + PROJECT CONSULTING	GENOME EDITING
Isolation of patient specific primary cells	• Derivation of induced pluripotent stem cells • Characterization and quality control of the derived cell lines	Generation of cell banks Provision of cell lines	Differentiation of iPSCs into specialized cell types like cardiomyocytes, endothelia cells, podocytes....	Development and provision of standardized protocols	Training is offered on a regular basis	Generation of isogenic and reporter cell lines for disease modeling

SERVICES/RESOURCES OFFERED BY THE BIH STEM CELL CORE FACILITY

Cooperation with **BCRT Cell Harvesting Core:** • Tissue sampling • Providing clinical information of the donor • Isolation of fibroblasts, PBMC, urinary cells...	• Different reprogramming techniques: Sendai virus or episomal plasmids • Characterization of iPSCs: pluripotency marker, differentiation potency, genotype... • Quality control: genomic stability, sterility identity	• Cell banking in cooperation with **BIH Biobanking Core** • Provision of reference cell lines	• Provision of protocols • Support during the establishment of new/published protocols	• Protocols for: Derivation, culture, preservation and genetic manipulation of hiPSC	• Basic Training: knowledge and hands-on expertise of maintaining and manipulating hiPSCs in tissue culture • Advaced Training: Reprogramming, genetic manipulation... • Project consulting	• Design and distribution of TALEN constructs (gene, disruption, gene correction, insertion of reporter constructs)

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