Pancreatic progenitor enrichment of hES cell culture by GLUT2 sorting (Technion)

code: STM-1148

Type I diabetes mellitus is caused by an autoimmune destruction of the insulin-producing cells. The major obstacle in using transplantation for curing the disease is the limited source of insulin-producing cells. The earliest human pancreatic progenitors are marked by the transcription factor pancreatic duodenal homeobox (PDX1). In normal β-cells, PDX-1 transactivates the insulin gene and other genes involved in glucose sensing and metabolism, such as GLUT2 and glucokinase. Several protocols have been tested, in order to increase the PDX1 expressing population in differentiating human embryonic stem (hES) cells or human inducible pluripotent stem cells (iPS), in an attempt to obtain pancreatic progenitors cells which may further develop into insulin producing cells.

Contact for more information:

Santiago Ini ✉, +972-4-8294856

T - Technion Technology Transfer
Technion City, Senate Bldg., Haifa 32000, Israel
Tel. 972-4-829-4851; 972-8325-375
Fax. 972-4-832-0845