European Bank for induced pluripotent STEM Cells (EBiSC)

Research Areas

- Tool Development
- Resource
- Data-Sharing Enabler
- Development

At a Glance

- Status: Active Consortium
- Year Launched: 2014
- Initiating Organization: Innovative Medicines Initiative
- Initiator Type: Government

Abstract

The European Bank for induced pluripotent STEM Cells (EBiSC) is designed to address the increasing demand by induced pluripotent stem cell (iPSC) researchers for quality-controlled, disease-relevant, research-grade iPSC lines, data, and cell services. The 3-years project aims to establish a central storage and distribution facility for human iPSC distributing iPSC lines worldwide on a not-for-profit basis.

Mission

EBiSC’s goal is to demonstrate an operational banking and distribution service of iPSC lines after three years and then to establish for Europe a centralized, not-for-profit bank providing all qualified users with access to scalable, cost-efficient, and customized products.

Consortium History
The EBiSC project was launched on 1 January 2014.

**Structure & Governance**

Led by Pfizer Ltd. and managed by Roslin Cells, EBiSC consists of eight active participant iPSC centers with clinical and patient networks, a global leader in industrial iPSC supply, international experts in iPSC science, biobanking, bioengineering, and regenerative medicine, and scholars in law and ethics. The main facility is located at the Babraham Research Campus (Cambridge, UK) and undertakes cell expansion, quality control, and characterization. The European Cell Culture Collection (ECACC) of Public Health England (Department of Health, UK) coordinates cell line distribution. The Fraunhofer IBMT (Saarbrücken, Germany) provides comprehensive operational backup.

**Financing**

The EBiSC project has received support from the Innovative Medicines Initiative (IMI) Joint Undertaking (JU) under grant agreement no. 115582, resources of which are composed of financial contribution from the European Union’s Seventh Framework Programme (FP7/2001-2013) and European Federation of Pharmaceutical Industries and Associations (EFPIA) companies’ in kind contribution. The IMI contribution is €21.8 million, the EFPIA contribution is €8.3 million, and others’ contribution is €5.1 million, for a total cost of €35.2 million.

**Intellectual Property**

Robust documentation for donor consent, material deposition and end user agreements for academic and commercial use has been established in line with the IMI’s requirements to ensure a responsible and responsive governance framework optimising the utility and longevity of the Bank.

**Patent Engagement**

Based on identified research needs for new disease iPSC lines to be specifically commissioned,
EBiSC seeks collaboration with new patient associations and clinical networks.

Data Sharing

EBiSC will spearhead Europe in the international standardization of iPSC banking by forging collaborative links with iPSC generating projects and initiatives in Europe and similar endeavors in the United States and Asia. Academic and commercial users of the bank will be able to submit, search and retrieve a rich collection of data on each iPSC line banked via the EBiSC Information Management System. Training will be provided to encourage adoption and use of the bank.

Impact/Accomplishment

iPSCs can be used to study disease biology, identify markers of disease and potential drug targets, and test drug safety and efficacy. In addition, iPSCs help to reduce the use of animals in research. By standardizing procedures and ensuring the quality of the cell lines and associated data, EBiSC will help academic and clinical researchers shed new light on the biology of diverse diseases. For the pharmaceutical efficiency, the cell lines will be a tool for carrying out early-stage drug testing. For patients, the project represents a step in ensuring that iPSCs realize their potential as a tool to improve and accelerate the development of better and safer treatments.

Links/Social Media Feed

Homepage http://www.ebisc.org/
Other website http://www.imi.europa.eu/content/ebisc

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