

## UK Stem Cell Bank Repository Statistics

### Repository Composition: Deposition, banking and storage

The UKSCB holds over 140 cell lines, with a repository of both research and clinical grade cells available (Fig. 1A). The UKSCB repository is mainly composed by hESC lines (93%, Fig.1B) of UK origin (83%, Fig.1C).

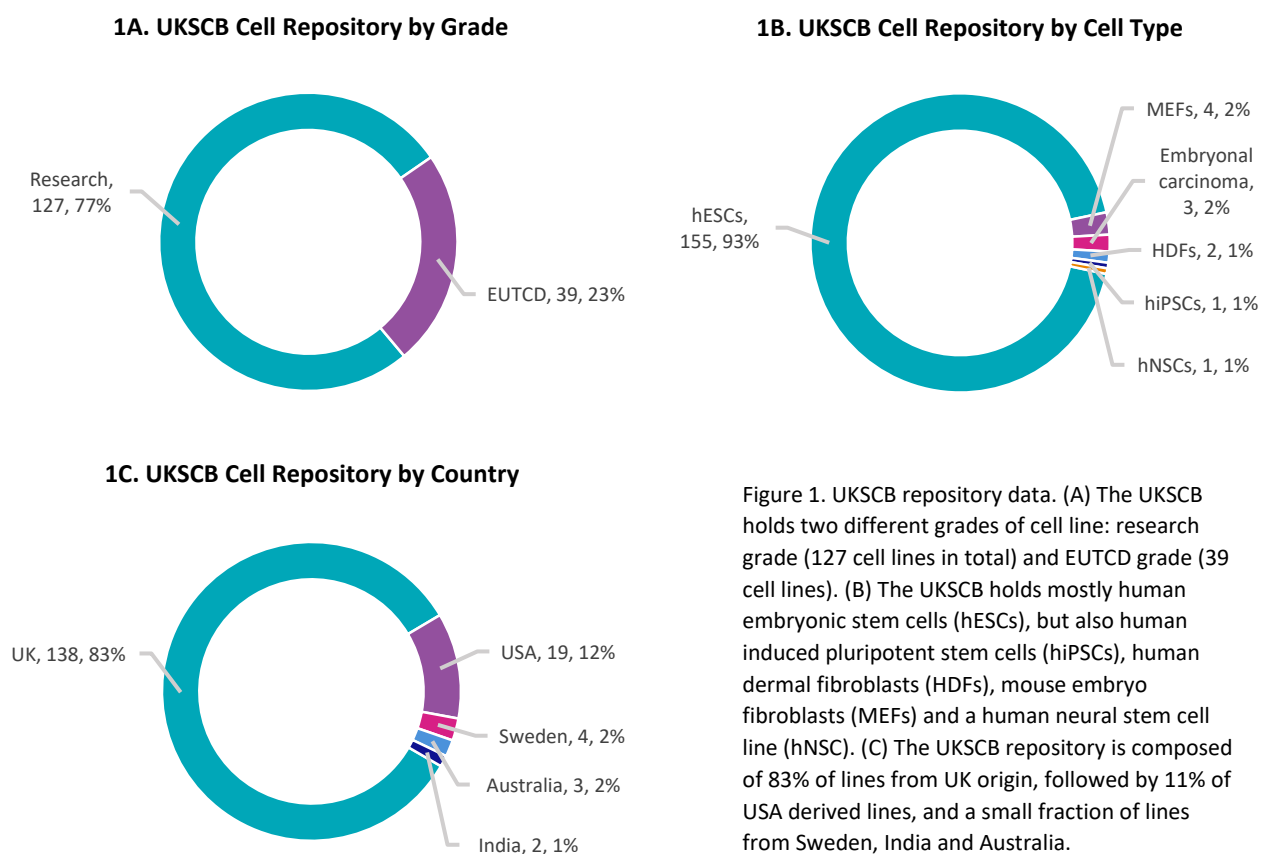
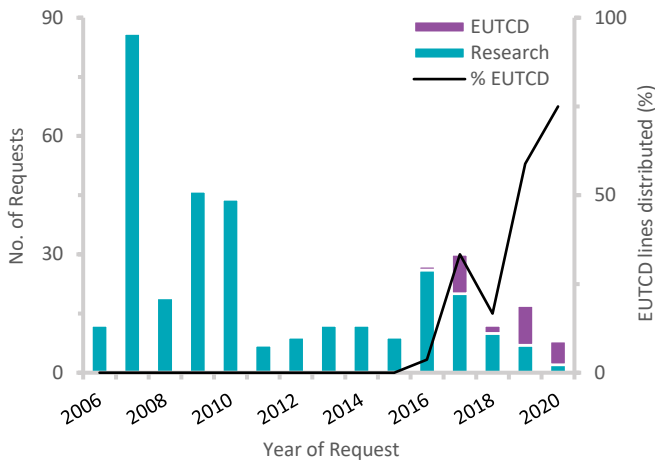


Figure 1. UKSCB repository data. (A) The UKSCB holds two different grades of cell line: research grade (127 cell lines in total) and EUTCD grade (39 cell lines). (B) The UKSCB holds mostly human embryonic stem cells (hESCs), but also human induced pluripotent stem cells (hiPSCs), human dermal fibroblasts (HDFs), mouse embryo fibroblasts (MEFs) and a human neural stem cell line (hNSC). (C) The UKSCB repository is composed of 83% of lines from UK origin, followed by 11% of USA derived lines, and a small fraction of lines from Sweden, India and Australia.

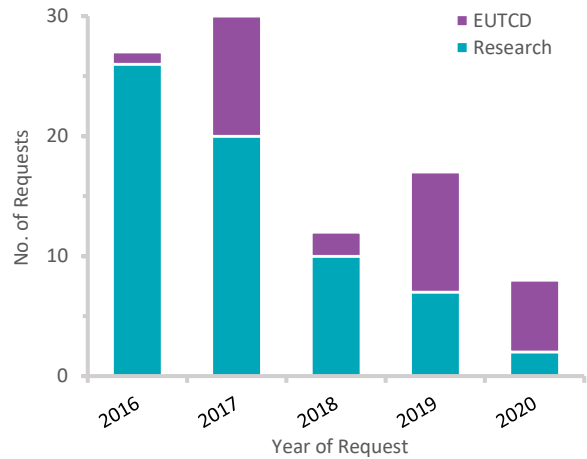
### Distribution of cell lines

Since 2006, the UKSCB has made over 330 shipments around the world (Fig. 2). A peak in the distribution was observed during the first 4 years of the UKSCB activity and, after the majority of hESC labs have been supplied, a further 15 to 20 shipments are made each year (Fig. 2A). Most of cell lines have been distributed within the UK (77% of all shipments), but requests from 14 other countries have also been processed (Fig. 2B). Most cell lines distributed so far have been of research grade, but several requests for EUTCD grade lines are currently being processed and 13 of these lines have recently been shipped for pre-clinical studies (Fig. 2C). We envisage that this trend will continue as more EUTCD-grade lines become available for distribution from the UKSCB, and as demand for starting materials for cell therapies grows.

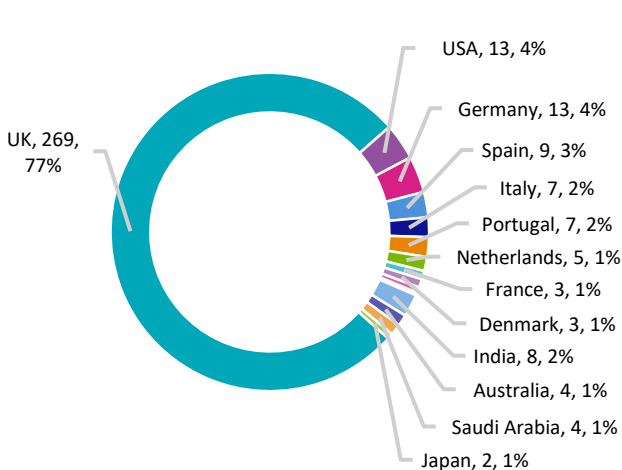
**2A. UKSCB Cell Distribution - All time**



**2B. UKSCB Cell Distribution - Last 5 Years**



**2C. UKSCB Cell Distribution by Country**



**2D. UKSCB Cell Distribution by Customer**

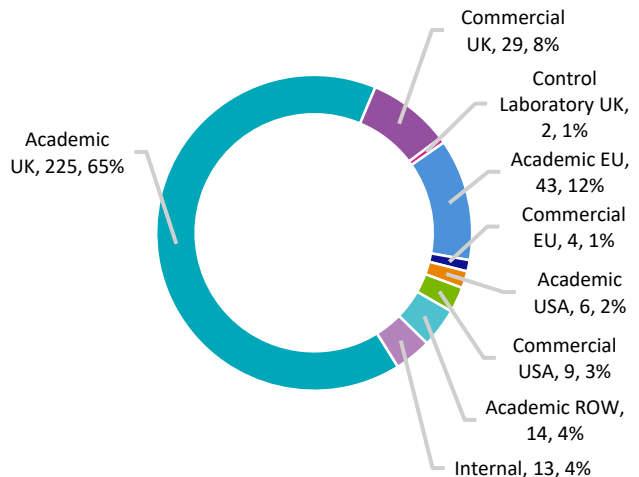


Figure 2. UKSCB distribution data. (A) Distribution data between 2006 and 2020 separated by cell line grade, with a focus on the proportion of distributed cell lines of EUTCD grade. The current requirements of the fields of cell therapy and stem cell biology mean that all requests thus far have been for research projects, but a shift in the cell line grade from research to EUTCD is observed and the number of laboratories ready to begin work for clinical application is increasing. (B) Focused distribution data for the 5 year period between 2016 and 2020 separated by cell line grade (research and EUTCD grade). (C) The UKSCB distributes stem cell lines worldwide. 77% of shipments have been dispatched within the UK, with requests from 14 other countries having been processed (14% to EU countries, 4% to the USA and 5% to the rest of the world (ROW)). (D) The UKSCB serves partners working in research and industry across the globe. 64% of our distributed material is requested by academic institutions in the UK, with 8% and 1% of requests coming from commercial and control laboratories respectively. An additional 12% of material was distributed to academic laboratories within EU countries and 1% to EU-based commercial labs. The proportion of material shipped to the USA and the rest of the world was 2% for academic and 3% for commercial uses, and 4% for academic uses respectively. The UKSCB has made 4% of its materials available to further research and standardisation projects undertaken within the NIBSC.