

Research Scientist (wet-lab), Full-time, Cambridge UK

Why Shift Bioscience? You'll be joining a passionate and innovative team whose mission is to deliver the first drugs for safe cellular rejuvenation in humans.

How did we get here? Daniel Ives (CEO) helped guide Brendan Swain (CSO) to develop an accurate single cell ageing clock, through the application of machine learning approaches to gene expression data. This enabled a CRISPR screen for ageing, but more excitingly, the constituent genes making up the clock were enriched for functional 'drivers' of ageing phenotypes, suggesting a causal or 'driver' clock methodology. This methodology was then applied to a powerful but dangerous cellular rejuvenation paradigm (cell reprogramming with pluripotent factors OSKM), which identified putative drug targets for safe rejuvenation. Shift is now on the cusp of validating these drug targets (more detail here <https://bit.ly/3jl5RyB>).

What will you do? You will be closely working with Romina Durigon (COO) to culture and manipulate a rapid ageing and rejuvenation human cell line. Through direct experimentation or with partners, you will synthesise and transfect gene candidates for safe rejuvenation into cells, use fluorescent activated cell sorting (FACS) to sort cells by surface markers and prepare cells for DNA methylation, RNA sequencing and functional analysis. You will work with the broader Shift team to interpret 'omic data and design follow-on studies.

What are we looking for in candidates? The ideal candidate will have experience with;

1. Human cell culture
2. Flow-cytometry
3. Molecular biology including molecular cloning, bacterial transformation, gel electrophoresis, nucleic acids isolation, protein isolation, RT-qPCR, PCR, and western blotting.
4. Next generation sequencing, including nucleic acid preparation
5. iPSC reprogramming from primary cell lines
6. Immunocytochemistry, wide-field and fluorescent microscopy (secondary)
7. CRISPR-Cas9 genome editing (secondary)
8. Organoid culture (secondary)

A candidate is most likely to succeed in Shift Bioscience if they thrive in a fast-paced, changeable, start-up environment. Helpful traits include;

1. Determination against the odds
2. Embrace of challenge and failure
3. Thirst for learning
4. Attention to detail
5. Integrity
6. Flexibility in role
7. Not too much ego

How will you be rewarded? £32-37k starting salary with milestone-based review, share options scheme, on-demand learning/training opportunities, opportunities for rapid role progression, state-of-the-art lab and office facilities at the Milner Therapeutics Institute, holidays.

How can you apply? As a small and close-knit team, we'll be making special efforts to ensure candidate-team fit. If you feel you are a good fit, please send your CV to daniel@shiftbioscience.com. If selected for interview, expect to meet with team members individually and as a group.

Questions? Please email daniel@shiftbioscience.com or alternatively join the Shift Bioscience virtual space from 4-5pm each Thursday. Access the space for free from your browser through the following link <https://bit.ly/SBpluto>