

Computational biologist

Full-time, Cambridge UK

Why Shift Bioscience? At Shift, you'll be joining a high performing and fast-moving team whose mission is to deliver the first drugs for safe cellular rejuvenation, enabling mitigation of chronic diseases in the sick, and prime of life-span extension in the healthy. We value ability and results and have a meritocratic culture, and work to reinforce the following values; openness, freedom, focus, representation and collaboration.

What will you do? Your role will contribute to one of the two core scientific capabilities at Shift Bioscience: machine learning (ML) model development and wet-lab validation. You will work closely with ML scientist Lucas Camillo to process and interpret biological data from different “-omic” layers. This will include the mixture of standard and bespoke sequencing and analysis techniques that form our active machine learning platform. You will maintain the current version of the platform, and help to develop future iterations, meaning that a strong background in statistics and modelling of biological data is required. An important part of your role will be to communicate with the rest of the team: you will work collaboratively with our lab scientists to improve experimental design and generate data of the highest possible quality. You'll then work with the whole team to interpret and explore the data. Your success in this role will accelerate the identification and validation of safe rejuvenation targets for further investigation. You will report directly to Brendan Swain, our CSO.

Where will you do it? Partly working in-person at our state-of-the-art lab and office facilities inside the Milner Therapeutics Institute on the Cambridge Biomedical Campus, and partly working from home. Our lab and office facilities have full disabled access.

How did we get here? We developed an accurate single cell ageing clock, by combining machine learning with gene expression data. Excitingly, the constituent genes making up the clock were enriched for known ageing biology, suggesting a ‘causal’ or ‘driver’ clock. This method was then applied to a powerful but dangerous cellular rejuvenation paradigm (cell reprogramming with pluripotent factors OSKM), which identified candidate gene sets for safe rejuvenation. You will be joining Shift as we validate these gene sets.

What are we looking for in candidates? Candidates must have;

- Bachelor's/ Master's in statistics/applied statistics/bioinformatics
- Experience in biological data modelling
- Experience in experimental design
- Clear cross-discipline communication
- Experience with Python or R
- Experience with version control software

The ideal candidate will also have;

- Single-cell RNAseq analysis
- Experience in applied statistics
- Bayesian optimisation
- Understanding and experience with active machine learning
- Experience with AWS

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

- Team player
- Effective communicator
- Attention to detail
- Resilience

Desirable traits include;

- Fast learner
- Flexibility in role

How will you be rewarded? Competitive salary with performance-based increases, EMI share options scheme, private medical insurance, on-demand learning/training opportunities, opportunities for rapid role progression, access to state-of-the-art office and lab facilities at the Milner Therapeutics Institute, 20d annual leave.

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