Bioinformatician, Full-time, Cambridge UK

Why Shift Bioscience?  We have now directly experienced the devastating collision of the fast pandemic of COVID-19 with the slow pandemics of chronic disease (Noubar Afeyan, JPM22). Vaccines have countered the fast pandemic, but the slow pandemic requires a different solution. At Shift, you’ll be joining a young 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 over seniority. We also work to reinforce the following values: openness, freedom, honesty and collaboration.

How did we get here? We developed an accurate single cell ageing clock, by applying machine learning 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 candidate drug targets for safe rejuvenation. You will be joining Shift as we validate these drug targets (more detail https://bit.ly/3jl5RyB).

What will you do? Your role will contribute to one of the two core scientific capabilities at Shift Bioscience: machine learning ‘clock’ development and wet-lab validation. You will:

1. Collaborate with our wet-lab team to generate and process ‘-omics’ datasets.
2. Liaise with the machine learning team to refine data processing standards.
3. Keep abreast of the state of the art in data processing and procure new publicly available data.

If you can achieve success in this role, you will sharpen our focus of drug targets for safe cellular rejuvenation, accelerate target validation and become an essential member of the team. This is a full time, in-person, research position at our state-of-the-art lab and office facilities inside the Milner Therapeutics Institute. You will primarily report to Brendan Swain (CSO).

What are we looking for in candidates? The ideal candidate will have:

1. Programming experience in R and/or Python (essential).
2. Experience managing and processing raw data from bulk and single-cell sequencing experiments, e.g. DNA-seq, RNA-seq and methylation sequencing (essential).
3. The ability to develop strong communication lines with the team (essential).

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

1. Team player (essential)
2. Effective communicator (essential)
3. Embrace of challenge and failure (essential)
4. Attention to detail (essential)
5. Fast learner (desirable)
6. Flexibility in role (desirable)

How will you be rewarded? £35-45k 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.