

## Potential Supervisors

[Dr Andrew Angel](#), Royal Society University Research Fellow, Department of Biochemistry



Andrew has been a URF at the University of Oxford since 2013 and primarily works on mathematical modelling of gene regulation. His interests in novel mechanisms of gene regulation range from epigenetics and chromatin to non-coding RNA. In order to investigate the mechanisms underpinning gene regulation Andrew and his group utilise a mixture of stochastic processes and differential equations to formulate models and data analysis tools to process the experimental results to which they are compared.

## Software Tools Developed

1. [Image Analysis Scripts for Automated Processing of smRNA-FISH data](#) – A set of Matlab scripts for automated image analysis and quantification of single-molecule RNA fluorescent in situ hybridization data was developed as part of a recent project and builds on existing image analysis software to provide greater automation.
2. [Model of Stochastic Gene Expression](#) – Computer code for a stochastic model that simulates stochastic gene expression and produces output suitable for comparison with smRNA-FISH data.

## Involvement of DTC Students

A current student from the Life Sciences Interface DTC, Tom Brown, has been heavily involved in the development of the computational models and image analysis software described above.

- [Thomas Brown](#)