

## TWO POSTDOCTORAL RESEARCH FELLOWS

INSTITUTE OF MEDICAL SCIENCES,  
UNIVERSITY OF ABERDEEN



### **PROJECT TITLE: HOW DOES RIF1 SAFEGUARD CHROMOSOME MAINTENANCE?**

Two postdoc positions are available to work on mechanisms of chromosome replication and maintenance in the laboratory of Professor Anne Donaldson and Dr Shin-ichiro Hiraga. We seek well-motivated individuals with a demonstrated interest in the field of chromosome maintenance. The successful candidates will join a dynamic, well-funded research team within an interactive group of laboratories sharing an interest in chromosome biology. You should have (or be about to obtain) a PhD in Molecular Biology or a related field.

Reliable chromosome maintenance is a central requirement for all living cells, and genome stability pathways including DNA replication and repair are crucial to ensure proper genome maintenance. Our lab uses the budding yeast *S. cerevisiae* and human cell lines to study the molecular roles of conserved genome stability components required for chromosome maintenance. One of the scientists appointed will work on chromosome maintenance in yeast, and the other in human cell lines. A long-term aim is to understand molecular mechanisms that control DNA replication and repair, ultimately to inform cancer treatment.

The Rif1 protein controls DNA replication and DNA repair throughout eukaryotes, and we aim to understand the role of this key regulator of genome maintenance mechanisms. **One of the scientists appointed will investigate how yeast Rif1 ensures correct chromosome maintenance**, harnessing cutting-edge genomic and single-molecule approaches to understand where and how Rif1 operates at sites of DNA replication. The post would particularly suit a postdoctoral researcher interested in combining methodological approaches of molecular, biochemical, cellular, genomic and computational biology to address fundamental cellular processes. Applicants with prior experience in analysis of chromosome maintenance, DNA replication, computational genomics analysis, and/or the biochemistry of nucleic acids are encouraged to apply.

**The second researcher will investigate the human RIF1 protein, taking forward exciting unpublished observations on how RIF1 is recruited to sites of DNA replication.** The position would particularly suit a postdoctoral researcher interested in taking molecular, biochemical, cellular, and proteomics approaches to address fundamental cellular processes. Applicants with prior experience in analysis of chromosome maintenance, DNA replication, genome stability, and/or cytological studies of genome maintenance are particularly welcome.

Informal email enquiries with CV are welcome to Prof Anne Donaldson ([a.d.donaldson@abdn.ac.uk](mailto:a.d.donaldson@abdn.ac.uk)) or Dr Shin-ichiro Hiraga ([s.hiraga@abdn.ac.uk](mailto:s.hiraga@abdn.ac.uk)). To apply formally visit: <https://www.abdn.ac.uk/jobs/> (human cell position code is IMS208R; yeast position code is IMS209R). Both positions funded by a Cancer Research UK Programme Award, with salary in the range £33,797 - £36,914. Positions available from Summer 2021.

