



PhD student (Chromosome Research, 38 hours per week)

vacancy number 10-1031

Job description

The candidate will work on the research project 'How the genomic sequence folds into a functional chromosome', funded by ALW/NWO.

Understanding the biological mechanisms that underlie nuclear reprogramming is a major challenge and a key objective in modern biology. The development of a multicellular organism involves constant changes in gene activity and requires the expression of only a subset of the many thousands of genes, which varies among cell types and between developmental stages. Instrumental to the variation in gene expression is the ability of eukaryotes to fold the linear genomic sequence into functional chromosomes. How chromosome folding is established and how folding is related to differential gene expression is largely unknown. This project builds on extensive expertise of the group in chromosome studies with mammalian and plant cells. In order to come to a folding-function relationship of eukaryotic chromosomes this project will combine (i) microscopical examination of chromosomes in the model plant *Arabidopsis* with (ii) mathematical modelling of chromosome folding.

Requirements

- Master's degree in biochemistry, cell biology, molecular biology or equivalent
- Experience with microscopic techniques
- Experience with mathematical modeling
- Able to work both independently and as part of a team
- An interest in chromosome research

Additional information

Project information can be obtained from Dr P.Fransz (p.f.fransz@uva.nl; +31 (0)20 525 5153).

Job application

Applications, including a curriculum vitae and the names and addresses of two references, should be sent before **22 June 2010** to: Dienst Personeelszaken, UvA / FNWI, Postbus 94216, 1090 GE Amsterdam, The Netherlands.

Applications can also be emailed to application-science@uva.nl

Please quote the vacancy number and mark 'strictly confidential' in the upper left corner of the envelope. Emailed applications should bear the vacancy number in the subject line and the other documents as attachments.

Conditions of employment

The full-time appointment will be on a temporary basis for a maximum period of four years (18 months plus a further 30 months after a positive evaluation) and should lead to a dissertation (PhD thesis). An educational plan will be drafted that includes attendance of courses and (international) meetings. The PhD student is also expected to assist in teaching of undergraduates. The full-time gross monthly salary will range from €2042 in the first year to €2612 in the final year, according to the Dutch salary scales for PhD students. The collective employment agreement (CAO) of Dutch universities is applicable.

Department

The Faculty of Science at the UvA is one of Europe's foremost institutions of higher education and research in its chosen fields of specialization. It plays an active role in international science networks and collaborates with universities and industry. The Faculty has approximately 2,500 students and 1,500 staff members spread over 4 departments and 10 research institutes. Each institute has its own research program, a substantial part of which is externally funded by the Netherlands Organization for Scientific Research (NWO), the Dutch government, the EU and various private partners. In March 2009, a large part of the Faculty moved to new premises in the Science Park Amsterdam; the entire Faculty will be located there by the end of 2010. The move will make the Park one of the largest centers of academic research in the Netherlands.

The Swammerdam Institute for Life Sciences (SILS) is one of the faculty's largest institutes. The research is centered on four themes: 1) The Living Cell, 2) Plants and Health, 3) Inside and Beyond the Brain and 4) Life Science Technologies. Institute members give advanced lectures and courses and the Institute stimulates scientific cooperation between participating groups and colleagues all over the world.

The Nuclear Organisation Group is part of the cluster 'The Living Cell' and focuses on the hierarchical regulation of genes and gene networks in higher eukaryotes (www.uva-nucleus.nl).