Ph.D. Position in Epigenetics

The Marquardt lab at CPSC is offering a 3-year fully funded Ph.D. position starting as early as 1st January 2021.

Project description

We are looking for an exceptionally motivated Ph.D. student to characterize the effects of epigenetic signaling during long non-coding RNA (lncRNA) transcription on gene expression. The project operates in the research areas of: epigenetics, RNA biology, RNA polymerase II (RNAPII) transcription and genomics. You will be based in the laboratory of Sebastian Marquardt, University of Copenhagen, Denmark, and visit the laboratory of Steve Jacobsen, University California Los Angeles, USA, to perform part of your project.

You will dissect the molecular mechanism of epigenetic signaling associated with RNAPII transcription elongation in Arabidopsis (1-2). A focus will be on transcriptional signaling mechanisms by histone methylation that repress intragenic transcription initiation (3-4). We are looking for a new team member enthusiastic about molecular genetic, biochemical and genomic approaches to characterize key players involved. We expect to uncover chromatin-based effects on RNAPII elongation, likely linked to gene regulation by overlapping lncRNA transcription (5).

Successful applicants will demonstrate enthusiasm for the research topic, scientific excellence and “can-do-attitude”. This Ph.D. project involves design, execution and analysis of transcriptomics and epigenomics Next-Generation Sequencing (NGS) data. Expertise and enthusiasm to analyze NGS data characterize candidates that match the profile for this position.

Application: Please apply here: https://employment.ku.dk/phd/?show=152138


(1) Reviewed here: Leng et al., TIPS 2020;
(2) Leng et al., EMBO Rep. 2020;
(3) Nielsen et al., PloS Gen. 2019;
(4) Thomas et al., Nat. Comm. 2020;