

JOB OPENING

Post-doc Yeast Molecular Biology

De Kroon-lab, Membrane Biochemistry & Biophysics ([MBB](#)), Bijvoet Centre ([BCfMR](#)),
Utrecht University, The Netherlands



Utrecht
University



PROJECT

Regulation of acyl chain length by Acc1 and FAS

In this NWO-funded project, you will investigate the regulation of acetyl-CoA carboxylase (Acc1) and fatty acid synthase (FAS) in establishing the average acyl chain length of membrane lipids in *S. cerevisiae*. The unsaturation and the average length of the lipid acyl chains are key parameters determining membrane fluidity. Whereas the mechanism of the former has been largely characterized in *S. cerevisiae*, the regulation of acyl chain length remains unknown, although this more subtle mechanism may be equally important for ensuring proper membrane function. In fatty acid synthesis, Acc1 synthesizes malonyl-CoA that is iteratively consumed by FAS in producing C16 or C18 fatty acyl-CoA. Based on data obtained by us and others, we hypothesize that the C16/C18 ratio of the acyl-CoA produced is determined by the relative activities of the 2 enzymes, i.e. increased activity of Acc1 vs. FAS favors a rise in C18 over C16 and *vice versa*.

YOUR ROLE

You will explore how yeast regulates Acc1 vs. FAS activity by designing and engineering a set of mutants, and applying a range of biochemical, genetic, -omics, and microscopy approaches to uncover the underlying mechanisms.

YOUR QUALIFICATIONS

To lead the project, we are looking for an ambitious and creative molecular life scientist (PhD) with demonstrated experience in (yeast) molecular biology who is interested in working at the interface of biochemistry, biophysics and genetics.

OFFER

- a full-time position for a period of 3.5 years; the first appointment is for one year with the option for extension pending on a positive evaluation
- a gross monthly salary between €3,877 and €5,090 (depending on experience) + benefits package according to the Collective Labour Agreement Dutch Universities

APPLY NOW

If you are enthusiastic about this job opportunity, please submit your letter of motivation, your *curriculum vitae*, and the names, phone numbers, and email addresses of at least two referees to Dr. Toon de Kroon. The application deadline is July 14 2024.

Send inquiries and all correspondence to: a.i.p.m.dekroon@uu.nl