

Research Theme: Dynamics of Telomeric Chromatin
Research Project Title: Biochemical and biophysical investigations of structural and dynamic properties of telomeric chromatin and nucleosomes
Principal Investigator/Supervisor: Prof Lars Nordenskiöld
Co-supervisor/ Collaborator(s) (if any): NA
Project Description
<p>Telomeres are biologically and medically very important because they protect the ends of eukaryotic chromosomes from inappropriate DNA repair and degradation, control terminal replication of chromosomal DNA and localize chromosome ends within the nuclear space. Very little is known about telomeric chromatin structure and its dynamics imparted by a combination of the repeated and G-rich composition of telomeric DNA. Mammalian telomeres consist of about 10000 bp of a highly conserved G-rich sequence repeat TTAGGG. Telomeric DNA is packaged by histones into chromatin. Although there is a wealth of information on the functional role of specific proteins that bind at telomeres, very little is known about telomeric chromatin.</p> <p>This project is part of The Telomere Dynamics Group (TDG) programme “Telomere dynamics and genome function: From DNA to the nucleosome to the nucleus”, a new, major initiative involving eight investigators in Singapore and many collaborators around the globe, which was recently awarded a Singapore Ministry of Education Tier 3 block grant (http://www.sbs.ntu.edu.sg/TDG/Pages/Home.aspx). By bringing together experts using a multitude of complementing disciplines, we aim to understand the structure, function and pathology of telomeres – one of the ‘final frontiers’ of genome biology.</p> <p>The candidate should have a background/interest in molecular biology/biochemistry, preferably with experience in protein expression and purification. Applicants should send their CV via e-mail. To Chan Ai Choo, College of Science, NTU at ACChan@ntu.edu.sg (only shortlisted candidates will be informed for an interview).</p>
Supervisor contact:
If you have questions regarding this project, please email the Principal Investigator: LarsNor@ntu.edu.sg
SBS contact and how to apply:
Associate Chair-Biological Sciences (Graduate Studies) : AC-SBS-GS@ntu.edu.sg Please apply at the following: http://admissions.ntu.edu.sg/graduate/R-Programs/R-WhenYouApply/Pages/R-ApplyOnline.aspx