

Associate Professor in Electron Microscopy of Biological Systems

DTU Danchip/Cen, National Center for Electron Nanoscopy and Micro/Nanofabrication invites applications for a position as associate professor in electron microscopy of biological systems.

DTU Danchip/Cen is a central research infrastructure at the Technical University of Denmark with the overall mission of contributing to research, development, innovation and education within the following scientific areas: Development and application of advanced characterization methods by means of electron microscopy and development and application of advanced micro- and nanofabrication technology.

The associate professor will be affiliated to the Center for Electron Nanoscopy (DTU Cen) currently employing 17 scientific and 6 technical staff members which is part of DTU Danchip employing a total of 80 staff members.

Responsibilities and tasks

DTU Danchip/Cen invites applications for an associate professor position to establish an internationally leading research group in application and development of electron beam based characterization methods of soft matter including but not limited to the study of single prokaryotic cell biological matter in line with DTU's research fields.

The associate professor will work alongside DTU Cen's scientific staff in general and will report to DTU Cen's scientific director to ensure that DTU Cen contributes to DTU's existing research efforts in the biological sciences through national and international collaboration. This is a permanent appointment with the following primary areas of responsibility:

Extension of DTU Cen's portfolio in areas of biological research that maximizes the use of the existing SEM and TEM based characterization and imaging methods. In particular, we expect activities concerning application and development of advanced cryo and related techniques (e.g. phase plate imaging) for the study of prokaryotic cell biological systems and other "soft matter". An important requirement of this position therefore is securing national and international research funding in this area, which should lead to the establishment of an internationally acknowledged research group in this field.

The successful candidate is expected build up courses specialized within soft matter microscopy and related sample preparation in order to enable the life sciences based activities and education at DTU to utilize electron microscopy and electron beam based characterization of soft matter samples. In addition to dedicated electron microscopy courses, aspects of soft matter electron microscopy should therefore be anchored in the curriculum of the majority of life science based educations at DTU. The teaching is expected to include bachelor, master and PhD courses.

Further tasks include:

The development and application of in-situ experimental techniques in TEM and SEM and controlled atmosphere transfer systems between the different microscopes.

Dissemination of research by publishing papers in collaboration with scientists at DTU and international collaborators.

Provision of advice and assistance to users of DTU's SEM and TEMs in conventional and advanced electron microscopy techniques.

Engage in outreach activities to both experts and non-experts alike to explain the role that electron microscopy can assume in quantitative analysis of biological systems.

Ph.D. supervision (including being main supervisor) and teaching within electron microscopy related applications.

In general, the position involves research, publication, teaching and scientific dissemination at a particularly high level, as well as external partnership and research management.

The successful candidate will establish an internationally leading electron microscopy research group at DTU Cen/Danchip in close collaboration with other DTU departments such as DTU Bioengineering (microbiology), DTU Food (food related research), DTU Compute (image processing), DTU Nanotech (micro- and nanotechnology) among others.

The successful candidate will be responsible for supervising PhD students and is expected to be involved in other teaching activities related to bachelor and master level students.

Qualifications

Candidates must

- hold a PhD degree (or equivalent) as well as academic qualifications equivalent to those obtained by holding an Assistant Professorship
- document didactic/pedagogic training

Emphasis is placed on the applicant's potential for building up a group and continuing developing electron microscopy and its applications within biological systems. Documented outstanding original scientific production at international level within the field of electron microscopy of soft matter over the last 7 years is required.

Assessment

In the assessment of the candidates, consideration will be given to

- Experience and quality of teaching
- Research impact and experience, funding track record, and research vision
- Societal impact
- Documented innovation activities, including commercialization and collaboration with industry
- International impact and experience
- Leadership potential and collaboration
- Communication skills

Consideration will also be given to:

- The ability to cooperate with other research groups.
- Relevant scientific background and skills within electron microscopy of biological systems including sample preparation
- Skills within leadership of scientific groups
- Innovative skills and the ability to generate new ideas
- Proven records of university level teaching activities.

We offer

DTU is a leading technical university globally recognized for the excellence of its research, education, innovation and scientific advice. We offer a rewarding and challenging job in an

international environment. We strive for academic excellence in an environment characterized by collegial respect and an academic freedom tempered by responsibility.

Salary and terms of employment

The appointment will be based on the collective agreement with the Danish Confederation of Professional Associations. The allowance will be agreed with the relevant union.

You can read more about [career paths at DTU here](#).

Further information

Further information may be obtained from Head of Department Jörg Hübner, tel.: +45 4525 5762 and Scientific Director Jakob B. Wagner, tel. +45 4525 6471.

You can read more about Danchip and Cen on www.danchip.dtu.dk and www.cen.dtu.dk.

Application procedure

Please submit your online application no later than **2 January 2018 (Local time)**. Apply online at www.career.dtu.dk.

Applications must be submitted as **one pdf file** containing all materials to be given consideration. To apply, please open the link "Apply online," fill in the online application form, and attach **all your materials in English in one pdf file**. The file must include:

- Application (cover letter)
- CV
- Views regarding teaching and research based on the "Assessment" bullets
- Documentation of previous teaching and research based on the "Assessment" bullets
- List of publications
- H-index, and ORCID (see e.g. <http://orcid.org/>)
- Diploma (MSc/PhD)

Applications and enclosures received after the deadline will not be considered.

All qualified candidates irrespective of age, gender, disability, race, religion or ethnic background are encouraged to apply.

DTU Cen/Danchip is a common infrastructure and research facility located at and fully owned by the Technical University of Denmark, DTU. The Center for Electron Nanoscopy is a state-of-the-art electron microscopy center which was inaugurated in Dec. 2007. The work carried out at DTU Cen is spans the range of basic topographical studies to highly sophisticated analysis of nanoscale materials.

DTU is a technical university providing internationally leading research, education, innovation and scientific advice. Our staff of 5,800 advance science and technology to create innovative solutions that meet the demands of society; and our 11,000 students are being educated to address the technological challenges of the future. DTU is an independent academic university collaborating globally with business, industry, government, and public agencies.