Group leader in live-cell functional in vitro modelling of alphasynuclein aggregate dependent processes in Parkinson's disease

PACE - Lundbeck Foundation Parkinson's Disease Research Center, Department of Clinical Medicine at the Faculty of Health, Aarhus University, invites applications for a position as group leader (Associate Professor level) in the field of live-cell in vitro modelling of Parkinson's disease as per 1 January 2026 or as soon as possible thereafter. The position is a 5-year, full-time position. A re-employment for another 5-year period will be available for the candidate to apply for – based on a public job posting and positive assessment. The re-employment is contingent on a positive assessment and being chosen by the hiring committee for the position. A mentoring programme will be offered, tailored to the individual applicant.

PACE - Lundbeck Foundation Parkinson's Disease Research Center

PACE is a newly established clinical and basic research center as of January 2025 and is generously funded by a large 10-year grant from the Lundbeck Foundation. PACE consists of a close-knit community of world-leading research groups in basic and clinical Parkinson's disease research, wherein a number of novel group leaders will be embedded. We are part of and collaborate closely with both Aarhus University, which is consistently ranked as one of the world's top 100 universities, and Aarhus University Hospital, which in 2024 was elected Denmark's best hospital for the 15th time.

PACE's mission is to take research in Parkinson's Disease to the highest level possible and to improve life for people with Parkinson's Disease or other neurodegenerative disorders. We focus on discovering and validating novel innovative tools, biomarkers and disease-modifying mechanisms, which within a 10-year time frame will be applied in clinical trials. You can read more about PACE <a href="https://example.com/here/back-new/bac

About the live cell in vitro modelling project

PACE invites applications for a full-time Associate Professor / Group Leader position to join a vibrant and interdisciplinary research environment entirely focused on clinical and basic biological aspects of Parkinson's disease and other synucleinopathies. The successful candidate will establish a collaborative research program on live-cell functional studies of alpha-synuclein aggregate processes in cell models comprising human iPSC derived neurons and glial cells, primary cultures from rodents, and organoids and tissue slices using cutting edge technologies including preformed fibrils of alpha-synuclein. Thereby, the candidate will complement and contribute to ongoing research in our established research groups investigating alpha-synuclein aggregation and their effects in the in vitro and in vivo models.

To achieve our goal, we are seeking a group leader to build a program with an emphasis on live cell imaging to gain mechanistic insight into cell autonomous and non-cell autonomous consequences of progressive build-up of alpha-synuclein aggregates in neurons and glia mechanisms involved in intercellular spreading of such processes.

The candidate is expected to develop live cell experiments of neurons and brain cells for assessing neuronal activity, organellar dynamics and function (particularly endoplasmic reticulum, mitochondria and lysosome), and synaptic activity using advanced imaging techniques along with high-content, data-driven methods based on omics. Techniques applied will comprise advanced 4D cellular and molecular imaging (e.g. lattice lightsheet SIM, genetically encoded sensors for subcellular and synaptic activities, protein-protein interactions, organellar dynamics such as mitochondrial and lysosomal functions, autophagic flux, transcription and translation). The aim should be holistic – broad in scope rather than restricted to a single cell model, a narrow set of biological readouts, or a specific Parkinson's model.

Based on the success of the candidate's research programme, international impact, and ability to attract external funding there are favourable options for advancement, all based on individual qualifications and necessary assessment and application procedures, as well as available funding.

Department of Clinical Medicine

As Associate Professor at the Department of Clinical Medicine, you will be part of what is probably the largest health science research department in Denmark. Our clinical research covers all the medical specialities and takes place in close collaboration with the university hospital and the regional hospitals in the Central Denmark Region. We have approx. 30,000 square meters of modern research facilities for experimental surgery and medicine, animal facilities and also advanced scanners at our disposal. The department has overall responsibility for the Master's degree programs in medicine

Application Deadline:

08 September 2025

Faculty:

Faculty of Heatlh

Institute/Faculty:

Department of Clinical Medicine

Academic contact person:

Per Borghammer Klinisk professor borghammer@clin.au.d k

Vacant positions:

1

Hours per week:

37

Number of months:

60

Expected date of accession:

01/01/2026

and in molecular medicine. At the department we are approx. 670 academic employees, 500 PhD students and 160 technical/administrative employees who are cooperating across disciplines. As an Associate Professor, you will be working at PACE – Lundbeck Foundation Parkinson's Disease Research Center, Aarhus University Hospital. You can read more about the department here and about the faculty here.

Your job responsibilities

As Group Leader in live cell in vitro modelling, you will contribute to the department's research and teaching environment and to the faculty's overall research strategy. You will contribute to the development of the department both individually and in collaboration with others via your research of high international quality. You ensure that your teaching maintains a high academic and didactic standard. You possess professional collaborative skills and a broad academic network which you are able to bring into play in your contribution to the academic development of Aarhus University and its profile both nationally and internationally.

Your main tasks will consist of:

- Development of a successful research group in live cell in vitro modelling of synucleinopathies
- Research of high international quality, including publication in top international journals and communicating your research in national and international academic networks
- Teaching and supervision of Bachelor's and Master's degree students and contribution to the development of new teaching activities
- Contribution to the funding with the help of external research funding
- Supervision of PhD students and contributing to the development of the faculty's PhD courses
- Involvement in assessment and committee work at Aarhus University
- Dissemination of your research to the outside world

An attractive start package is available for a 10-year period, totalling approximately €2.8 million. This includes €1.4 million allocated for the first 5-year period and a similar amount for the second 5-year period. The package covers your own salary, group member salaries, equipment and running costs. Additional funding for larger equipment and lab. technician support is available and can be negotiated with the director.

You will report to Per Borghammer, director at PACE.

Your qualifications

The ideal applicant has established themselves as a prominent researcher within the field of in live cell in vitro analyses of neurons and possesses a documented record of high-level research at an international standard. The candidate is expected to have developed broad international collaborations and demonstrated ability to engage in productive research partnerships with both academic institutions and public or private stakeholders. It is essential that the candidate shows potential to lead an independent research group and has experience in securing substantial external research funding from national and international bodies. Previous affiliation with at least one internationally recognized research institution is also required.

Applicants must be proficient in state-of-the-art techniques used in in vitro neuroscience. Proven proficiency in studying models based on human iPSC derived neurons and glial cells, primary cultures from rodents, and ideally also organoids and tissue slices, is expected. Particular priority will be given to those with extensive experience in in live-neuron experiments for assessing neuronal activity, organellar dynamics and function (particularly endoplasmic reticulum, mitochondria or lysosome), and synaptic activity using advanced imaging techniques along with high-content, data-driven methods based on omics. Techniques applied will comprise advanced 4D cellular and molecular imaging (e.g. lattice lightsheet SIM, genetically encoded sensors for subcellular and synaptic activities, protein-protein interactions, organellar dynamics such as mitochondrial and lysosomal functions, autophagic flux, transcription and translation).

While prior research in Parkinson's Disease or other neurodegenerative proteinopathies such as Alzheimer's disease is advantageous, it is not a strict requirement if other core qualifications are met.

We are seeking a dedicated and collegial individual who is an effective communicator and committed educator. The ideal candidate will be able to foster constructive relationships with students, colleagues, and external partners, and will be capable of delivering complex material in an engaging, clear, and accessible way. As a supervisor, the candidate should demonstrate professionalism, inclusivity, and the ability to inspire early-career researchers. A willingness to take shared responsibility for developing PACE's research and education at the highest international level is essential, as is a commitment to maintaining a positive and supportive work environment. Active involvement in interdisciplinary collaboration across the department, faculty, university, and broader academic networks is expected.

Fluency in spoken and written English is required for this position. Aarhus University highly encourages international applicants to learn Danish, and the university offers Danish language instruction to support this.

In order to be assessed as qualified for an Associate Professor position, you must meet these academic criteria.

Shortlisting will be used.

Questions about the position

If you have any questions about the position, please contact professor Poul Henning Jensen tel.: (+45) 2899 2056 or professor Marina Romero-Ramos tel.: (+45) 6020 2749.

Your place of work will be at PACE, Aarhus University Hospital, Palle Juul-Jensens Boulevard 165, DK-8200 Aarhus N, Denmark. During 2026 we will move to Incuba, Palle Juul-Jensens Boulevard 82, DK-8200 Aarhus N, Denmark.

Applications deadline: September 8th.

We expect to conduct interviews during weeks 47-48.

Terms of employment

- Appointment as an associate professor requires research and teaching qualifications at the level that can be achieved through the satisfactory completion of a period of appointment as an assistant professor, but may also be obtained in other ways.
- The applicant is required to have completed a university pedagogical programme or an equivalent programme.
- Further information on the appointment procedure can be found in the <u>Ministerial</u>
 Order on the Appointment of Academic Staff at Universities.
- The appointment is in accordance with the <u>Danish Confederation of Professional</u>
 <u>Associations</u> (Akademikerne).
- Remuneration is in accordance with the above, and the <u>Salary agreement</u> catalogue for staff at <u>Health</u>.
- The yearly base salary for a fulltime associate professor is DKK 650.004,18 (including a position related supplement, a pre-agreed associate professor supplement and pension (17.1%)). Additional supplement(s) can be negotiated dependent on experience, special qualifications and performance of special functions. Authorisation supplement(s) will be granted, if relevant for the position. Your local eligible trade union representative at Aarhus University negotiates your salary on your behalf.
- Researchers recruited from abroad are offered a <u>special researcher tax scheme</u> with a lower tax rate.
- Travel and moving expenses may be covered according to the employee in question and, to a limited extent, the accompanying family.
- Further information on qualification requirements and job description can be found in the <u>Ministerial order on Job Structure for Academic Staff at Universities</u>.

Your application must include the following:

- Motivated application
- Curriculum Vitae
- Diploma
- Template for applicant associate professor
- · A list of publications
- A teaching portfolio. We refer to Guideline on the use of teaching portfolios
- The five publications stated as the most important in the 'Template for applicant associate professor' must be submitted
- Research plan, which is part of the 'Template to applicant associate professor'
 can be uploaded separately (optional). Please note that the template allows a
 maximum of 3 pages, whereas a separate upload permits up to 5 pages
- Coauthor statement(s) can be uploaded (optional)
- References/recommendations can be uploaded separately in the e-recruitment system (optional)

We refer to the faculty's Guidelines for applicants.

Aarhus University's ambition is to be an attractive and inspiring workplace for all and to foster a culture in which each individual has opportunities to thrive, achieve and develop. We view equality and diversity as assets, and we welcome all applicants.

International applicant?

Aarhus University offers a broad variety of services for international researchers and accompanying families, including assistance with relocation and career counselling to expat partners. Please find more information about the International Staff Office and the range of services here.

The application must be submitted via Aarhus University's recruitment system, which can be accessed under the job advertisement on Aarhus University's website.

Aarhus University

Aarhus University is an academically diverse and research-intensive university with a strong commitment to high-quality research and education and the development of society nationally and globally. The university offers an inspiring research and teaching environment to its 38,000 students (FTEs) and 8,300 employees, and has an annual revenues of EUR 935 million. Learn more at www.international.au.dk/