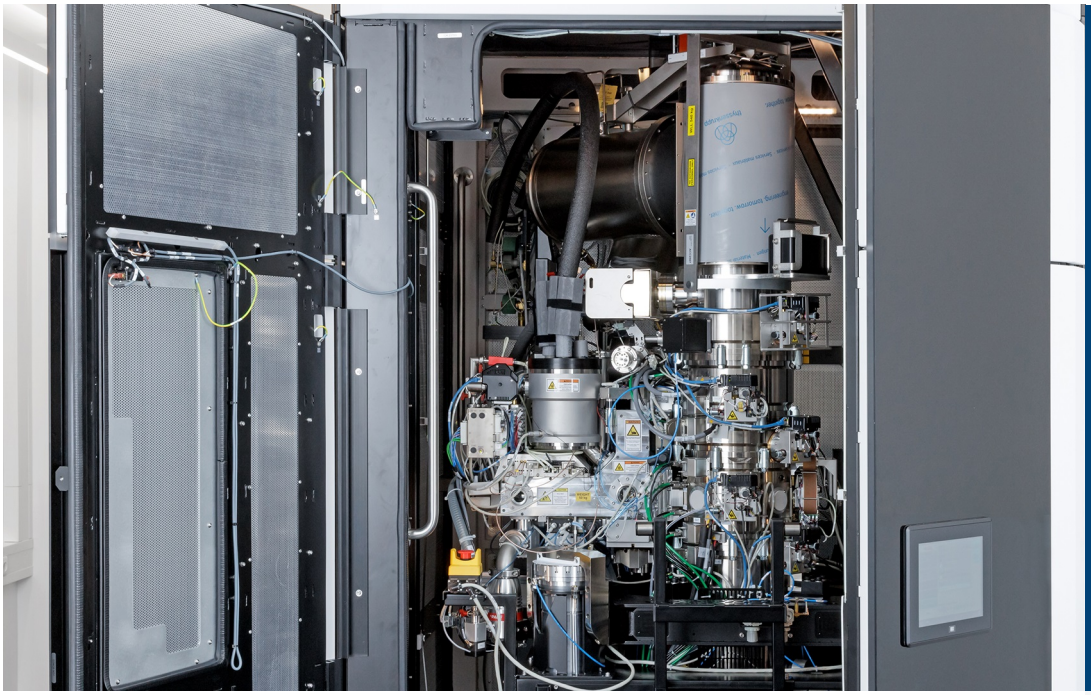

Conducting research for a changing society: This is what drives us at Forschungszentrum Jülich. As a member of the Helmholtz Association, we aim to tackle the grand societal challenges of our time and conduct research into the possibilities of a digitized society, a climate-friendly energy system, and a resource-efficient economy. Work together with around 7,400 employees in one of Europe's biggest research centres and help us to shape change!

The Ernst Ruska Centre (ER-C) at Forschungszentrum Jülich is one of the world-leading electron microscopy centres with more than 15 electron microscopes. At the ER-C-3, the Structural Biology department of ER-C, we investigate the structural and molecular mechanism of membrane biology and push the development of cryo-EM related methodology. We use a comprehensive electron microscopy approach to study the biological structures of membrane-associated protein complexes. Our main methods of investigation are single-particle electron cryo-microscopy (cryo-EM) as well electron cryo-tomography (cryo-ET) that we are also developing to advance existing imaging technologies towards high-resolution structural biology (https://www.fz-juelich.de/er-c/er-c-3)

We are offering a PhD position for cryo-EM studies of the cellular autophagy process in the field of Structural Biology at the ER-C-3. The Sachse lab recently determined a series of cryo-EM structures of autophagy related proteins such as receptor p62/SQSTM1 (Jakobi et al. 2020, Nat Commun, https://dx.doi.org/10.1038/s41467-020-14343-8).

For the Ernst Ruska-Centre for Microscopy and Spectroscopy with Electrons under the direction of Prof. Sachse we are offering an interesting

PhD Position - Cryo-EM of Cellular Autophagy

Your Job:
In order to gain a deep structural understanding, we biochemically purify and reconstitute autophagy protein complexes in lipid environments and we visualize them by high-resolution cryo-EM methods. Moreover, we visualize the autophagy process in in situ mammalian cells to understand the role in neurodegeneration. The successful candidate will be embedded in a network of membrane biological research and latest cryo-EM infrastructure.

The job will be advertised until the position has been successfully filled. You should therefore submit your application as soon as possible. We look forward to receiving your application via our **Online-Recruitment-System!**

Questions about the vacancy?
Get in touch with us by using **our contact form.**
Please note that for technical reasons we cannot accept applications via email.
www.fz-juelich.de

Your tasks include:

- Investigate protein lipid interactions using biochemical and biophysical methods
- Employ advanced imaging methods, including single-particle cryo-EM, electron tomography, correlative light and electron microscopy/tomography (CLEM) as well as associated image processing
- Cryo-EM structure determination in vitro and in situ

Your Profile:

- Master degree in biochemistry, molecular or cell biology or related field
- Strong experimental skills in molecular cell biology experiment design including associated data analysis
- Prior knowledge of structural biology and/or light microscopy techniques is of great advantage
- Strong communication skills and ability to work in an international and interdisciplinary team

Our Offer:

We work on the very latest issues that impact our society and are offering you the chance to actively help in shaping the change. We offer ideal conditions for you to complete your doctoral degree:

- The chance to work at one of the largest research centers in Germany, with excellent scientific equipment and leading European computational resources, located on a green campus, and near the cultural centers Köln, Düsseldorf, and Aachen. The Jülich campus also hosts a vibrant biophysics, bioinformatics and structural biology community
- Direct access to high-level cryo-EM infrastructure at the Ernst-Ruska Centre. The facility houses state-of-the-art cryo-microscopes and FIB-SEMs of ThermoFisher Titan Krios, Talos Arctica and Aquilos 2 in the context of unique electron microscopy instrumentation
- Working in a dynamic team of researchers with backgrounds in different disciplines across biology, chemistry, physics and informatics to advance cryo-EM methods
- Excellent scientific and technical infrastructure
- The opportunity to participate on conferences and project meetings
- Continuous professional supervision by your scientific supervisor
- Extensive company health management
- 30 days of annual leave and an attractive regulation for bridging days
- Further development of your personal strengths, e.g. through an extensive range of training courses; a structured program of continuing education and networking opportunities specifically for doctoral researchers via JuDocS, the Jülich Center for Doctoral Researchers and Supervisors: https://www.fz-juelich.de/en/judocs
- Targeted services for international employees, e.g. through our International Advisory Service

The employment of doctoral researchers at Jülich is governed by a doctoral contract, which usually has a term of three years. Pay is in line with 65 % of pay group 13 of the Collective Agreement for the Public Service (TVöD-Bund) and additionally 60 % of a monthly salary as special payment („Christmas bonus“). Further information on doctoral degrees at Forschungszentrum Jülich including our other locations is available at: https://www.fz-juelich.de/gp/Careers_Docs

In addition to exciting tasks and a collaborative working atmosphere in Jülich, we have a lot more to offer: https://go.fzj.de/benefits

We welcome applications from people with diverse backgrounds, e.g. in terms of age, gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.