



Friedrich-Alexander-Universität  
Erlangen-Nürnberg



## PhD position

### Multidimensional characterisation of bionanoparticles in Erlangen / Germany for 40 hours a week

#### That's the project

CAARE is a European Doctoral Networks project and deals with the characterization and recovery of bionanoparticles for vaccine delivery and gene therapy. Overall, 14 Doctoral Candidates will be trained at seven institutions in five European countries and will be supported by a network of industrial and academic partners.

At the Institute of Particle Technology at FAU you will deal with the multidimensional characterization of bionanoparticles (e.g., AAV gene-therapy vectors and VLPs) using a toolset of different analytical ultracentrifugation techniques, which are complemented by other sizing techniques such as nanoparticle tracking analysis and dynamic light scattering. Experimental characterization will be combined with modelling tools such as Brownian dynamics or bead modelling to predict transport properties, validate experimental results and provide operation parameters for continuous flow ultracentrifuges.

#### That could be your future

You are working in an enjoyable work climate, have numerous possibilities for further education and personal development. You are part of a challenging and helpful work environment full of team spirit and enthusiasm for your job. You expand your expertise and bridge your science to industry.

We offer you a wide range of education and training opportunities, joint activities within the team, collegial working environment, discounted food and drinks in our canteens, office space within walking distance of public transportation, active health management and the opportunity to learn a new language.

**And not to forget:** You make your research visible and broaden your network!

#### That's important to us

In the best way you have completed a Master's degree or Diploma at a recognized University in (Bio)Chemical Engineering, Biotechnology, Biophysics or related fields. Research experiences in the following areas would be fine:

- Chemical Engineering
- Biochemical Engineering
- Mathematical Modelling
- Bioprocess Engineering
- Biophysics

**IMPORTANT: The Mobility Rule for European Doctoral Networks applies:** Researchers must not have resided or carried out their main activity (work, studies, etc.) in the country of their host organisation (Germany) for more than twelve months in the three years immediately before the start of employment.

You should enjoy the work in an international interdisciplinary environment.

#### That's what you should know

- The monthly gross salary is about **EUR 3950** (a family allowance can be paid if the requirements are fulfilled)
- Start: **1<sup>st</sup> of February 2025** (3 years contract)

Find out more about why FAU is the right choice for you: <https://www.fau.eu/education/advice-and-services/career-service/>



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Please apply by submitting a letter of motivation, a CV, and contact information (incl. email addresses) for two academic references to Dr. Johannes Walter ([johannes.walter@fau.de](mailto:johannes.walter@fau.de)).

Application deadline: **15<sup>th</sup> of November 2024**

*FAU is a family-friendly employer and intends to increase the number of women in research and teaching positions and, therefore, strongly encourages female researchers to apply. In its pursuit of academic excellence, FAU is committed to equality of opportunity and to a proactive and inclusive approach, which supports and encourages all under-represented groups, promotes an inclusive culture and values diversity.*