The subinstitute Computational Biomedicine (INM-9) at Forschungszentrum Jülich develops and uses computational methods going from multi-scale molecular simulations to bioinformatics and drug design to face the challenge of understanding the molecular basis of cellular (especially neuronal) signaling processes, in healthy and disease conditions. Because of the complexity of the systems under study, simulation approaches require massive parallel computing resources such as those available at the Jülich Supercomputing Center (JSC) at Forschungszentrum Jülich.

We are offering a

**2020D-045 - PhD Position - Computational Molecular Medicine**

**Your Job:**
- Design in silico compounds which may interfere with chronic-pain related pathways and neuroinflammation by using methodologies ranging from molecular simulation to computer-aided drug-design, cheminformatics and machine learning
- Implementation of structural Bioinformatics approaches
- Molecular simulation of selected targets
- Virtual screening and identification of potential binding entity
- Development and application of Chemoinformatic/Machine learning-based analyses
- Free-energy calculations

**Your Profile:**
- University degree in either biophysics, chemistry, pharmaceutical chemistry, or computer science
- Experience with UNIX-like operating systems
- Mathematical and programming skills (R, Python, Keras, Tensorflow)
- Ideal prior knowledge on pathway/Systems biology or MD simulations
- Excellent knowledge of written and oral English
- Interactive person with good communication skills
- Used to work in international teams

We look forward to receiving your application until 07.04.2020 via our Online-Recruitment-System!

Questions about the vacancy?
Contact us by mentioning the reference number 2020D-045: career@fz-juelich.de

Please note that for technical reasons we cannot accept applications via email.
www.fz-juelich.de
Our Offer:

- Outstanding scientific and technical infrastructure – ideal conditions for successfully completing a doctoral degree
- A highly motivated group as well as an international and interdisciplinary working environment at one of Europe’s largest research establishments
- Chance of participating in (international) conferences and project meetings
- Opportunities of being part of an international scientific community
- Further development of own scientific profile through a strong international network
- Continuous scientific mentoring by your scientific advisor
- Participation in overarching seminars including certificate
- Further development of your personal strengths, e.g. via a comprehensive further training programme
- Salary and social benefits in conformity with the provisions of the Collective Agreement for the Civil Service (TVöD)
- Information on employment as a PhD student at Forschungszentrum Jülich can be found here http://www.fz-juelich.de/gp/Careers_Docs

Forschungszentrum Jülich promotes equal opportunities and diversity in its employment relations.

We also welcome applications from disabled persons.