

Available from now, we are looking for a

**Postdoctoral Research Associate (E 13 TV-L).**

Applications are invited for a 36 month Post-Doctoral Research Assistant position at the interface between Biophysics and Neurobiology in the group of Prof. Dr. Jochen Guck at the Biotechnology Center of the TUD. The position is part of an interdisciplinary project entitled “Do the mechanical properties of MS lesions influence the extent of remyelination?”, which is a joint endeavour with the groups of Prof. Krystyn Van Vliet (MIT) and Prof. Robin Franklin (University of Cambridge) funded by the National Multiple Sclerosis Society. This project aims to establish whether the lack of remyelination of axons in multiple sclerosis patients is due to the mechanosensitivity of oligodendrocyte precursor cells and inappropriate mechanical properties of the tissue.

**Tasks:** The PDRA will learn to work with animal models of demyelination/remyelination in the lab of Robin Franklin in Cambridge, UK, and will then establish animal procedures at TUD. He/she will develop protocols for tissue preparation for AFM-based mechanical measurements of lesion tissues slices. One main task will be the characterization of mechanical properties of lesioned tissue at different stages of remyelination and age. The PDRA will also develop methods for therapeutic regulation of lesion mechanical properties using *ex vivo* models.

**Requirements:** We are seeking a dynamic and motivated candidate with a PhD in biophysics, neurobiology, biomechanical engineering or another related area. Proven competence with relevant experimental techniques is a prerequisite. Especially experience with the setup, maintenance, running and computer control of an **atomic force microscope for mechanical measurements** is necessary. The successful applicant will also be familiar with CNS cell or tissue cultures, or the conduction of animal experiments.

Informal inquiries regarding the position should be made to Prof. Jochen Guck ([guck@biotec.tu-dresden.de](mailto:guck@biotec.tu-dresden.de); <http://www.biotec.tu-dresden.de/research/guck/>).

Applications should contain a motivation letter, CV, publication list, list of three contacts for references and should be sent to **TU Dresden, BIOTEC, Heike Neumann, Tatzberg 47/49, 01307 Dresden, Germany** or to email: [heike.neumann@biotec.tu-dresden.de](mailto:heike.neumann@biotec.tu-dresden.de) (Please note: We are currently not able to receive electronically signed and encrypted data). Applications from women are particularly welcome. The same applies to disabled people. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG).