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DLR – DAAD Fellowships

Fellowship No. 654

Research Area : Space

Research Topic: **Towards personalized space medicine: Interindividual differences in generation of human induced pluripotent stem cells (hiPSCs) from human subjects in space analogue studies**

- Isolation of mononuclear cells from peripheral blood of study subjects
- Generation of hiPSCs
- Characterization and control of the generated hiPSCs by different approaches
- Differentiation of hiPSCs to neuronal lineages, i.e. motorneurons
- Functional characterization of personalized hiPSC-derived neuronal cells e.g. by multi-omics approaches, biochemical analyses, Ca-imaging, electrophysiological approaches (multi-electrode array, MEA)
- Data analysis and interpretation
- Writing of scientific publications, reports and PhD thesis
- Presentation of results at internal meetings, national and international conferences

DLR Institute: Institute of Aerospace Medicine

Location: Cologne, Germany

Position: Doctoral Fellow

Openings: 1

Job Specification: PhD position in biology at the DLR in cooperation with a German University. DLR represents the National Aeronautics and Space Research Centre of the Federal Republic of Germany. In close cooperation with various universities as well as national and international partners, the Departments of Applied Aerospace Biology and Radiation Biology of the Institute of Aerospace Medicine investigate how biosystems respond to space conditions with respect to mechanisms induced by ionizing radiation as well as by altered gravity. In this context we expose biological samples or human subjects to simulated space conditions (analogue studies).

Required Qualification: Master degree in Biology, Biotechnology, Biochemistry, Biomedical Sciences or similar. Proficient in English. Experience in various cell culture and analysis techniques. Experience in cultivation of human induced pluripotent stem cells (hiPSCs)

Advantageous Skills: Experience in radiation biology, gravitational biology, omics techniques (RNA sequencing, proteomics) & bioinformatics, immunostaining & fluorescence microscopy, electrophysiology, space and space analogue experiments

English competence: See requirements on www.daad.de/dlr

Earliest Start Date: 01.11.2024

Application Deadline: 30.08.2024

Further Information: <http://www.dlr.de>
<http://www.daad.de/dlr>

More information may be obtained by contacting:

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Thank you for your attention!
We look forward to receiving your application!