Call for applications to the PhD program Translational Research in Neurodegeneration (TReND)

Medical University of Innsbruck, Austria
23.01.2023

Students with a keen interest in neuroscience are invited to apply for vacant doctoral positions within the PhD program TReND (Translational Research in Neurodegeneration) at the Medical University of Innsbruck, Austria.

Research framework: Synucleinopathies are complex neurodegenerative disorders presenting with parkinsonism and the accumulation of pathologically altered alpha-synuclein in neuronal and glial cells. Synucleinopathies include Lewy body disorders (Parkinson's disease, dementia with Lewy bodies), and multiple system atrophy. Pure autonomic failure and isolated REM-sleep behavior disorder are recognized among the possible premotor presentations of both Lewy body disorders and multiple system atrophy. Disease-modifying therapies for synucleinopathies are lacking and current efforts to identify successful treatment for these disorders are limited due to frequent misdiagnosis in early stages and insufficient understanding of pathogenic factors.

Hypotheses: Our general hypothesis is that early events in synucleinopathies trigger cell-specific pathologies and define a set of prodromal signs that may serve as biomarkers of early diagnosis and disease progression. Understanding these highly dynamic events will lead to identification of disease targets and recognition of prodromal stages, facilitating disease-modifying therapies with higher chances of success.

Approach: The research projects combine experimental approaches, clinical assessments and datasets, body fluid, tissue, and neuroimaging biomarkers, and machine learning methods for the specific research aims. TReND faculty is composed of preclinical and clinical researchers to ensure the translational character of this specific doctoral program.

This PhD program offers:

- 4-year funded PhD position in the Neuroscience PhD Program of MUI with salary according to the rates of the 'Kollektivvertrag' for PhD students at the Medical University of Innsbruck.
- Participation at 1 international meeting (Society for Neuroscience, American Academy of Neurology, Movement Disorders Society, or AD/PD International Conference on Alzheimer's and Parkinson's Disease and related neurological disorders), and twice at a meeting of the Austrian Society of Neurology or the Austrian Parkinson Society.
- Up to 6 months stay abroad at a collaborating institution.