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Two Research Positions in Cell and Molecular Biology

The Department of Molecular and Biomedical Sciences at the Jožef Stefan Institute is seeking a full-time and highly motivated **Postdoctoral Fellow/Research Scientist and a technician (MSc level)** to work on cell and molecular biology of lipid droplets. The positions are available from June 2024 with an initial one-year contract, with the possibility of extension.

For the **postdoc/research scientist position**, we are looking for candidate with:

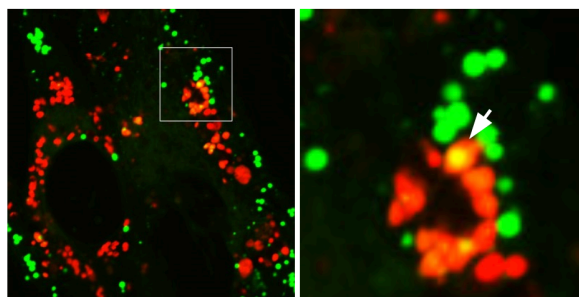
- a PhD in life sciences,
- high motivation for scientific research,
- research experience reflected in publications in international peer-reviewed journals,
- expertise in cell biology, biochemistry or molecular biology,
- very good skills in written and oral English communication and a preference for team work.

For the MSc level **research technician**, we are looking for candidate with:

- an MSc in life sciences,
- high motivation for scientific research,
- very good communication and organisational skills and ability to work in a team.

Laboratory experience in biochemistry, cell biology or molecular biology would be a plus.

The project. The successful applicants will join the team of Dr. Toni Petan to study the molecular and cell biology of lipid droplets. Lipid droplets are cytosolic fat storage organelles emerging as key controllers of membrane and organelle homeostasis, particularly in stressed cells. Their biogenesis is induced in cells exposed to various forms of nutrient and oxidative stress, but their functions in the cellular response and adaptation to stress are unclear. You will join a group of enthusiastic scientists focused on uncovering the molecular mechanisms underlying 1) lipid droplet cooperation with autophagy in the regulation of mitochondrial function and dynamics; and 2) lipid droplet-mediated control of membrane composition and sensitivity to ferroptotic cell death. The work primarily includes targeted genetic and pharmacological manipulation of protein function in mammalian cells, combined with standard protein biochemical analyses, cellular functional assays using flow cytometry, biochemical and cellular metabolic assays, analyses of organelle morphology and dynamics using live-cell confocal imaging and quantitative image analysis.



The scientific community and location. Jožef Stefan Institute is the leading interdisciplinary institute in Slovenia hosting a community of the best physicists, chemists and biochemists in the country. Our Department provides a vibrant atmosphere enriched by a diversity of scientists and students involved in yeast genomics, toxinology, neurodegeneration, plant biology, microbiology, structural biology, enzymology and immunology. The institute is located in the capital city of Ljubljana, which offers a great mix of urban and outdoor lifestyles. Numerous nearby attractions, including the Adriatic Coast and the Julian Alps, provide ample opportunities for leisure activities.

Please send your CV with publication list, a short summary of previous scientific research experience, motivation letter indicating the soonest start date and at least two reference letters to toni.petan@ijs.si.