



## **XIX. Call for the Junior Fund, 2026**

### **Proposal for a research project**

Faculty/institute/unit of CU:	Second Faculty of Medicine – Charles University
Department:	Department of Biophysics
<b>Research project title:</b>	Development of nanofibers functionalized with Mediterranean phytoextracts for nanotheragnostics and as an alternative to antibiotics.
Project description:	Preparation and optimization of nanofiber-based systems functionalized with natural extracts from endemic Mediterranean plants for nanotheragnostics. The novelty of the Project is hidden in a unique combination of antibacterial effects of endemic Mediterranean plants, known already from ancient times, with a recently discovered observation of the eukaryotic cell growth stimulation. Nanofiber functionalization with these traditional phytoextracts could, thus, serve to substitution of antibiotics as well as to healing synergy by simultaneous stimulation of cells growing in bacterial-free microenvironment.
What do we offer?	Long-lasting experience with preparation of nanofibers, their characterization and functionalization both on their surface and core. Deep knowledge of nanotechnology applications in medicine. Primary research on the effect of nano-environment on cell growth.
Profile of an ideal candidate:	Young scientist experienced in preparation and characterization of Mediterranean endemic plant phytoextracts with a deep enthusiasm for learning of novel nanotechnological approaches
Position available from:	October 1, 2026
Workplace location:	Plzeňská 311, Praha 5, 150 06
Supervisor(s):	prof. RNDr. Evžen Amler, CSc.
E-mail:	evzen.amler@lfmotol.cuni.cz
Phone:	+420 257 296 350
Application deadline:	31.3.2026
Applicants must submit required documents to:	<i>Prof. Evžen Amler</i>

