



The **LIFE SCIENCE LABORATORY** of the Department of Physics at the Faculty of Electrical Engineering, Czech Technical University in Prague, invites applications for

Postdoctoral Researcher for experimental work on microbiology and biosensors.

The laboratory focuses on interdisciplinary research of microorganisms, in particular effects of non-thermal plasma in combination with organic and inorganic materials on inactivation of microorganisms and long-term inhibition of their proliferation. This represents one of the hot topics of contemporary research in life science promising to overcome ineffectiveness and environmental load of conventional chemicals and pharmaceuticals. The work will address role of individual factors (such as reactive oxygen and nitrogen species, ozone, UV radiation, flow of charged and uncharged particles, changes in pH, electrospraying, material interaction, etc.). The research will employ colony counting procedures, optical spectroscopic methods (Raman) and label-free electronic biosensors which can facilitate sensitive and real-time monitoring from molecular binding phenomena to cell and bacterial culture conditions. Use of novel (nano)materials and detection mechanisms will be explored. Target applications are in biomedicine, health care, food production, and environmental safety. The work will be assisted by PhD student(s) and supervised by [doc. RNDr. Bohuslav Rezek, Ph.D.](#)

Job requirements:

Successful candidates must hold PhD degree (or equivalent) in Biophysics, Natural Sciences, Life Sciences, Biology, or Medicine. Previous experience with microbiological experiments, publications as the first author in recognized scientific journals as well as good knowledge of English (both written and oral) are required. Experience with writing and submission of research grants is advantageous and highly welcome. Ability to independently supervise the team of PhD and Master students is expected.

Contract details:

The salary is competitive, based on quality and experience of the candidate. The position is initially for 2 years and can be repeatedly prolonged.

How to apply:

This call remains open until a suitable candidate is found. Applications must include a brief description of research interests and relevant experience, CV with publications, and at least one Letter of recommendation of an academic referee. Inquiries and applications should be sent to: rezekboh@fel.cvut.cz.