

## General information

Workplace : Laboratory of Radiation Biology JINR (LRB JINR)

Date of publication :

Type of Contract : Research fellow

Contract Period : 12 – 36 months taking into consideration the results achieved during the first 12 months

Expected date of employment : 15 January 2020

Proportion of work : Full time

Remuneration : starting from 2 000 \$ gross per month payed in rubles, final amount will be commensurate with qualifications and experience.

13% income tax is applied in accordance with the RF regulations.

Social package: see additional information bellow

Desired level of education: PhD

Experience required 2 to 5 years of postdoctoral experience.

## Missions

Plans of deep space exploration involve new challenges to specialists in space radiobiology. In this connection, JINR's basic facilities present a unique opportunity of modeling the biological action of space radiations. It is becoming clear that during manned interplanetary flights, highly dangerous for crew will be heavy charged particles of the galactic cosmic rays (GCR). It will not be possible in the near future to provide a physical protection of crew from the GCR damaging effect. Radiobiological experiments at accelerated charged particle beams will be focused on studying heavy ion action mechanisms at the molecular, cellular, tissue, and organism levels of biological organization. Special attention will be paid to experimental animals' CNS disorders because CNS must be considered as a critical system when evaluating the radiation exposure risk for the interplanetary mission crews.

## Activities

The postdoctoral fellow will participate in the design and conduction of radiobiological experiments; perform work within the scope of the Laboratory's department and submit on timely basis work reports; present research results as reports and talks to scientific seminars, meetings, and conferences, as well as publications in scientific journals; and supervise student course and diploma work.

## Skills

The postdoctoral fellow must have radiobiological laboratory skills; know principles and methods of work with small laboratory animals and mammalian and human cells (*in vitro* and *in vivo*); have practical skills of cell culture and animal maintenance and exposure to ionizing radiation of different physical characteristics; have a command of the main cytogenetic (flow cytometry, mFISH, PCC, metaphase cell analysis) and molecular (PCR, DNA gel electrophoresis, reactive oxygen and nitrogen species analysis in cell cultures) methods of work with biological samples; know the specifics of the test systems for radiation-induced mutagenesis research; be able to perform experimental data visualization and processing using field-specific programs.

The successful applicant should be able to work well in an international environment. The applicant will also be expected to take on responsibilities with the experiments and the analysis work and should be able to work, when needed, independently. Proficiency in English is essential. Knowledge of Russian would be an asset.

## Work Context

WORKPLACE: The researcher will be a staff member of the Department of Radiation Biology and Physiology at the Laboratory of Radiation Biology (LRB), JINR. The Department's staff includes two members of the Russian Academy of Sciences, three Doctors of Sciences, and 10 Candidates of Sciences. The Laboratory's total staff is 100. The LRB occupies two separate buildings.

## Constraints and risks

The postdoctoral fellow will be expected to undertake international travel for periods varying from some 1 to 4 weeks. During experiments shift work and working on weekends may be necessary. The experiments will be carried out at accelerator facilities whereby the necessary authorisations will be attributed following a yearly medical examination arranged by the laboratory.

## Additional Information

Applications should include a detailed CV, a brief statement of research interests, list of publications and at least two letters of reference forwarded to Dr. Igor Koshlan [koshlan@jinr.ru](mailto:koshlan@jinr.ru) before October 15 2019.

Social package offered by JINR:

- The employer offers free health insurance covering medical service in the frame of the Russian compulsory medical insurance system.
- The employer will pay no pension insurance.
- The employer can offer accommodation in its own apartments (one-, two- or three-room flat depending on the number of family members) in the limits of availability and the laboratory can partly offset the rent expenses.
- Half price access to the JINR Olympic-size swimming pool and preferential access to the sport infrastructure of JINR.

Short-listed candidates will be invited to an interview, remotely, or in person.

**Web site**

Lrb.jinr.ru