

# OPEN POSITIONS FOR POSDOCS & PhD STUDENTS

## Laboratory of Cancer Biology, Institute of Molecular Genetics, Prague, Czech Republic

### **Research topics: Maintenance of genome stability, oncogene-induced replication stress, G-quadruplex structures, R-loops, transcription-replication interference**

DNA damage is a frequent event in the life of a cell. Failure to repair DNA damage can lead to cell death, while inaccurate DNA repair can give rise to genomic instability, which promotes the onset of cancer in mammals. Research in our laboratory focuses on understanding various DNA repair mechanisms operative in mammalian cells. Our main aim is to define the exact DNA transactions that mediate the resolution of conflicts between transcription and replication machineries, a major source of genomic instability driving cancer development. Recently, we obtained a highly prestigious grant GAČR-EXPRO in collaboration with Dr. Lumír Krejčí from the Masaryk University to study the molecular mechanisms underlying the formation and resolution of RNA:DNA hybrids (R-loops), highly genotoxic structures that can arise as a consequence of transcription-replication conflicts.

The successful candidate will be working on the projects headed by Dr. Pavel Janscak and Dr. Jana Dobrovolna. More details about the laboratory are on following websites: <http://people.img.cas.cz/jana-dobrovolna/>.

### **Benefits:**

Institute of Molecular Genetics is located in the new, modern building with the state-of-art equipment. Laboratory on Cancer Biology has a long-standing interest in mechanisms of genome integrity maintenance and applies a broad spectrum of approaches. The group is publishing in high profile journals and has good funding. The successful candidate can take a short-term internships in collaborating laboratory at the Institute of Molecular Cancer Research, University of Zurich, Switzerland. Work in young and motivated collective. Competitive salary, initial salary is commensurate with experience.

For PhD students: The Faculty of Sciences at Charles University is currently admitting PhD students bi-annually, earliest deadline to sign for PhD studies is in December 2020. In addition to a fellowship from the Charles University that is paid to students admitted to the graduate program, we offer a part-time position at IMG and corresponding salary with benefits.

### **Candidate's profile (requirements):**

PhD or MSc degree in biochemistry or molecular/cellular biology, good English, independent thinking, strong interest in basic research and experimental work. Background in DNA damage response, cell cycle regulation or mechanisms regulating DNA replication and transcription is an advantage.

### **Start of job:**

Due to starting funding, the preferred start of appointment is January – February 2020 (could be negotiated for a strong candidate). Submit your application for a postdoc or PhD studies as soon as possible.

Please submit your CV and a cover letter with a description of research experience and interests to Jana Dobrovolna ([jana.dobrovolna@img.cas.cz](mailto:jana.dobrovolna@img.cas.cz)). Be prepared to provide the names of three references.

Thank you for your interest,

Jana Dobrovolná, PhD

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