

**Institute of Biochemistry and Biophysics Polish Academy of Sciences in Warsaw seeks two PhD students for the execution of OPUS scientific project entitled: “Identification of the interdependence between SWI/SNF-type chromatin remodelling complex, metabolism control and RNA modification in salivary gland cystic carcinoma as a basis for a new targeted therapy” financed by the National Science Centre**

**Entity:** Institute of Biochemistry and Biophysics Polish Academy of Sciences; Laboratory of Gene Expression Regulation headed by prof IBB, dr hab. Tomasz Sarnowski

**Nature of contribution to the project:** two PhD student positions

**Scientific discipline:** Biological sciences

**Project description:** Our research shows that salivary gland adenoid cystic carcinoma (ACC) is characterized by overexpression of proteins that are components of the multi-protein SWI/SNF complex responsible for triggering the expression of many genes. It is interesting that in the most of cancers these proteins are significantly less abundant, which causes disorders in the number of complexes and deregulation of expression of various genes. Interestingly, in these tumors, in addition to deregulation of SWI/SNF complexes, we also observe disorders in alternative mRNA splicing. Our molecular studies have shown that the proteins responsible for splicing interact directly with the SWI/SNF complex. In addition, we have observed that this complex also interacts with proteins that impose m6A modification on RNA, so called ‘writers’. Therefore, the planned study of the interactions and interdependences between the SWI/SNF complex, metabolism, alternative splicing and RNA modifying complex will allow to learn about molecular mechanisms of regulation of gene expression at various levels in ACC and select potential targets for innovative combined therapy including use of so called epidrugs-compounds inactivating such protein machineries as i.e. SWI/SNF complex.

**The PhD student 1** will be involved in the assessment of the influence of BRM, the central ATPase of the SWI/SNF complex, on metabolic, transcriptomic and RNA splicing alterations in salivary gland ACC, etc.

**The PhD student 2** will be involved in the determination of the impact of SWI/SNF complex inactivation on chromatin and RNA modifications in salivary gland ACC, and selection of new targets for ACC treatment, etc.

Lab webpage: <https://ibb.edu.pl/pracowania-badawcza/tomasz-j-sarnowski/>

**The anticipated average fellowship: 5 000 PLN/month (brutto/brutto) for 46 months with possible extension to 48 months.**

**Requirements for the candidates:**

- master degree in one of the life sciences discipline (the MSc defense must be completed before 30.09.2021)
- scientific achievements
- experience in work with cell lines and/or in chromatin/DNA field
- independent thinking in experiment designing

- high capability in managing several projects in parallel
- willingness to collaborate with other scientists and foreign laboratories
- English language skill

**Required documents:**

- CV
- Motivation letter with justification of the matching to the project
- Copy of masters' degree diploma (or written information about expected date of the defense)
- The list of notes from the last step of study and the grade point average from studies
- Letter of support from the master thesis supervisor
- a declaration of consent to the processing of personal data

**All candidates will undergo two-step selection:**

1. **Stage one** – The Commission (Project leader and two independent researchers at the IBB PAS) will assess the documents and on the basis of this assessment will be selected candidates qualified to Stage two. We restrict the right to contact only selected people.

2. **Stage two** – Selected candidates will be appointed to an interview including a short (10 min.) ppt presentation about their scientific achievements (online). The exact date for the Stage two will be set later.

On the basis of the results of Stage two the positions will be offered to candidates.

Deadline for submitting document: 31.08.2021

The position starting date: 1 October 2021

The complete applications should be sent to the Principal Investigator of the project:  
[tsarn@ibb.waw.pl](mailto:tsarn@ibb.waw.pl) (Tomasz Sarnowski)