



A postdoc position is available in the Department of Microbial Biochemistry, Institute of Biochemistry and Biophysics of Polish Academy of Sciences in Warsaw to work on **Topology of *Pseudomonas aeruginosa* chromosome. The role of partitioning protein ParB.**

We are looking for a highly motivated candidate who would like to join a research group working under the supervision of prof. dr hab. Grazyna Jagura-Burdzy. The group has been working on chromosome segregation in bacteria, specifically with *Pseudomonas aeruginosa* as a model organism. The role of two partitioning proteins ParA and ParB and specific DNA centromere-like sequences, *parSs* in the process of accurate genomes separation has been thoroughly delineated. Our transcriptomic studies demonstrated involvement of Par proteins in modulation of gene expression at global level. Recently using ChIP-seq we discovered that ParB may bind to more than 1000 specific short sequences (half-*parSs*) with only a fraction of those located in promoter regions of ParB-dependent genes (Kawalek, Bartosik, Glabski & Jagura-Burdzy, NAR, 2018). We postulate that ParB may influence gene expression either directly through binding to promoter regions or interactions with other regulatory proteins or through introducing topological constrains in the genome. We want to investigate the role of ParB binding to numerous sites in topology of bacterial genome using our collection of *parB* and *parS* mutants, construction of new mutants deprived of chosen sets of half-*parS* sites and applying the newest high-throughput technologies Hi-C and ChIA-PET. Our long term goal is to understand the co-regulation of chromosome compaction, segregation and gene regulation and the role of ParB in this process. The project **Topology of *Pseudomonas aeruginosa* chromosome. The role of partitioning protein ParB** is financed by National Centre of Science (NCN).

Position starts on: 15-02-2019. Expected salary (net) 6000 PLN/month

Maximum period of contract: 36 months

Profile of candidate/requirements:

1. The successful candidate has to hold a PhD degree in a relevant discipline (biology/ biochemistry/ biotechnology) at the time of starting the position.
2. Strong background in molecular biology, bioinformatics, bacterial genetics is required. Experience in work on *Pseudomonas* will be an advantage.
3. Ability to analyze NGS data.
4. Devotion for science, creativity, previous successes in experimental laboratory work, good publication record (original papers in journals from the list Journal Citation Report)
5. Ability to work independently as well as in a team. Good communication and organization skills.

Required documents:

1. CV including scientific achievements, short description of research project(s) conducted so far, list of known/used methods by the applicant, any other relevant information (prizes, honors, IT skills, organization of scientific meetings, experience in supervision of students/teaching).
2. Copy of PhD diploma or any other document which confirms PhD promotion.
3. List of publications, if applicable. Contact information for at least one professional reference.
4. Optional documents: reference letter(s), motivation letter - summary and relevance of your current research and why you are interested in the position (maximum 1 page).
5. All documents (written in English or Polish) should be merged into one pdf file and send to: gjburdzy@ibb.waw.pl

Selection process: Application deadline is **31-01-2019**. Applications submitted after the deadline will be still considered if positions are not filled. Selected candidates will be invited for interview.

Please include in your offer: I hereby give my consent for the processing of my personal data by the Institute of Biochemistry and Biophysics PAS with its seat in Warsaw Pawińskiego 5a, 02-106 hereinafter

referred to as the Institute for the purpose of the recruitment process and for future recruitment processes conducted by the Institute under Art. 23 ust 1 pkt 1 of the Personal Data Protection Act dated on 29 August 1997, consolidated text: Journal of Laws 2016, item 922 with further amendments and under Art. 6 ust.1 lit. a of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such GDPR (Dz. U. UE. L. z 2016 r. Nr 119.)