

Bioinformatics Research Assistant position in development of bioinformatics databases for comparative analysis of RNA molecules

Laboratory of Bioinformatics and Protein Engineering at the International Institute of Molecular and Cell Biology (IIMCB), Warsaw, headed by Prof. Janusz M. Bujnicki, offers a position for a **Bioinformatics Research Assistant** motivated to develop a career in an interdisciplinary and international team.

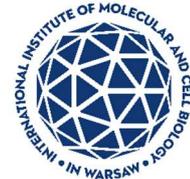
Deadline for applications is **September 14th, 2019**. Preferred job starting date is **October 2019 (or as soon as possible)**.

As a **Research Assistant**, you will be involved in bioinformatics projects that combine data analyses with the development of databases. Your key project will be the continued development of MODOMICS <http://modomics.genesilico.pl>. In particular, MODOMICS is currently restricted to RNA modifications, and you will expand it to include DNA modifications and possibly also posttranslational protein modifications. The work will include data gathering (including reading biologically-oriented literature), comparative bioinformatics analyses, and maintenance/update of the database and its web interface. You will also be involved in other similar projects, in particular involving comparative analyses of RNA sequences, such as the development and update of the RNArchitecture database <http://genesilico.pl/RNArchitecture>. As a contributor to research and software development, you will co-author scientific publications. This position is envisaged for 4 years, with a possible extension.



Optionally, you may be involved in the development of our web servers (if you have skills for front-end development). Optionally, you may apply to join Ph.D. studies in the course of the project (if you are interested and eligible).

The institution: International Institute of Molecular and Cell Biology in Warsaw www.iimcb.gov.pl is one of the top-ranked (A+) Polish research institutes, which provides a stimulating and interdisciplinary research environment. Research topics at IIMCB cover the wide area of molecular, cellular, and structural biology. The Institute is equipped with state-of-the-art technology, has excellent core facilities and supportive administration. IIMCB benefits from numerous generous funding schemes for basic research through grants from international and national sources. The institute is located in a large biomedical campus that offers access to equipment and various possibilities of training and collaboration. We provide opportunities for extensive interdisciplinary collaborations within the team and in the institute, as well as external and international collaborations. The working language of the institute is English.



The team: Our group <http://genesilico.pl> is highly interdisciplinary and international. We combine various approaches for studying the structures and mechanisms of action of biological macromolecules, in particular RNA, as well as macromolecular complexes involving nucleic acids, proteins, and small molecules. Our key strength is in the integration of various types of theoretical and experimental analyses. On the one hand, we use biochemical and biophysical approaches to characterize the structures and functions of our target molecules experimentally. On the other hand, we develop and use computer programs for data analyses, in particular for modeling based on heterogeneous, low-resolution, and noisy experimental data. We also use theoretical predictions to guide knowledge-based design and engineering of molecules with new structures and functions.



This position is ideal for you if you are a bioinformatician with interest in RNA biology or a biologist with experience in programming, and if you are looking for a position that balances research and methods development. You have to be a skilled programmer already at the beginning of the project (this position is not for beginners who want to start learning software development). We particularly encourage applications from candidates who have at least basic experience in bioinformatics analyses (e.g., know biological databases, how to search them, and how to process the results of searches), and in the development of databases. You will enjoy this position if you want to work on extraction of information about various biological molecules both from databases and from scientific literature, and if you are interested in combining bioinformatics analyses with the development of databases and web services. The work will be carried out in collaboration with other group members, so we need a person who likes to work in a group.

We offer:

- A contract for specific work (umowa o dzieło), starting from 3000 PLN/month (net)
- Funding guaranteed for 4 years (possibly longer, depending on performance)
- Participation in courses, training in science and software development, support from peers, and academic mentoring
- Administrative and organizational support from professional English-speaking personnel
- Appointment available from October 2019 or as soon as possible after that date
- Optionally: an appointment to a Ph.D. school (starting October 2020 at the earliest), available for candidates who are eligible and interested in pursuing an academic career. Ph.D. studies are not mandatory, they may offer additional benefits and will include additional obligations (participation in courses, exams, structured educational program, etc.).

We require:

- BSc degree (or equivalent) in biology, chemistry, physics, computer science, or related area.
- Documented experience in computer programming, in particular database development. Coding in Python is absolutely required and candidates are requested to provide samples of the code. Candidates who can demonstrate experience with Django will have a strong advantage
- Knowledge of HTML, Javascript, CSS, and BASH scripting will be advantageous. Experience in website/web server development will be advantageous
- Documented experience in bioinformatics analyses, preferably on sequences, structures, or pathways
- Proactive approach to achieving objectives, good interpersonal skills, collaborative and adaptive attitude
- Very good command of English (written and oral communication)
- Candidates interested in pursuing the (optional) Ph.D. study need to hold an M.Sc. degree (recognized in Poland)

Priority will be given to candidates with expertise most relevant to the project and to the profile of the laboratory, who are familiar with our work and who can convincingly explain why their expertise is a good fit for our requirements.

The Research Assistant will be selected from candidates in an open competition, according to the procedure complying with the rules of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers as a part of HR Excellence in Research strategy <https://www.iimcb.gov.pl/en/institute/hr-excellence>

How to apply:

- **Apply now** (before the deadline of September 14th, 2019) to employment@genesilico.pl
- In the subject include "IIMCB-bioinformatics-databases" and your first and last name.
- Your application must be submitted in English and should contain: 1) a CV, 2) a cover letter including a short description of your key achievements and explicit responses to the following questions: What are your scientific interests and how do they relate to requirements of the position offered? What are your key strengths? What do you know about our laboratory and why do you want to work with us?, 3) contacts to at least two potential referees, including your B.Sc. supervisor, 4) examples of software you developed, in Python (obligatory) and in Django (not obligatory, but recommended). You must be the only author or the main author of the software (in such a case all coauthors must be clearly mentioned), the code must be documented and functional. At this stage, please do not attach copies of diplomas, etc., and please do not send code in other programming languages.
- Generic applications that do not address the specific requirements of this position will not be considered
- Please include the following statement in your application: *"I hereby agree to the processing of my personal data, included in the application documents by the International Institute of Molecular and Cell Biology in Warsaw, 4 Księcia Trojdena Street, 02-109 Warsaw, for the purpose of carrying out the current recruitment process."* Your personal data will be processed for the purpose of the recruitment procedure by the International Institute of Molecular and Cell Biology in Warsaw. Full information is available under the link <https://www.iimcb.gov.pl/pl/information-clause>
- Best candidate(s) may be given additional questions and tasks as a part of the recruitment process
- The competition may be extended or repeated until a suitable candidate who fulfills all requirements is found