

Bioinformatician/Gerontologist. Data curator in aging research

The **Institute of Biochemistry of the Romanian Academy**, Splaiul Independentei 296, Bucuresti, Romania, 060031, is looking to hire **one research assistant as a data curator/bioinformatician** in aging research. The successful candidate will join the **Computational Biology of Aging Research Group** in the Department of Bioinformatics and Structural Biochemistry.

Job description:

The post is funded by a EU POC-A1-A1.1.4-E- 2015 Competitiveness Operational Programme 2014-2020 award, for the development of a „*Multi-omics prediction system for prioritization of gerontological interventions*” (GERONTOMICS). The duration of the post is one year, extendable for up to 2 years, based on satisfactory performance. The selected candidate will work **full-time** in the project.

GERONTOMICS aims to use a systems biology approach to combine data from different “omics” levels (e.g.: genomic, transcriptomic, epigenomic, etc) and from various models of ageing in order to create a large-scale data-driven analysis and prediction platform for experimental interventions in gerontology.

The project involves both computational aspects (data aggregation and processing, multidimensional data analysis, network-based methods, systems theory approaches, etc) as well as wet-lab experiments (some of the predicted interventions will be tested in vivo), with a highly multi-disciplinary team.

Candidates should be highly motivated, with a PhD (or studying for the PhD title) in a field related to Gerontology and should already possess experience in aging research. An excellent command of the English language is required for our multidisciplinary group. Additional competencies in bioinformatics, statistics, data science or computer science are an advantage but are not strictly required for this job.

Job responsibilities:

Under the project director’s supervision, the research assistant will collaborate with other team members to curate ageing-related datasets and scientific papers. The researcher will also support the group with manual annotations for various datasets and will participate in experiment and analysis design. Depending on his/her prior experience, the research assistant could also carry out bioinformatics analyses on the available data or wet-lab experiments.

As a data curator the candidate’s responsibility will be to:

- Collaborate with the project director to design computational analyses and experiments,
- Review scientific literature on various ageing-related topics,
- Be involved in data and knowledge curation
- Occasionally, carry out bioinformatics/statistical analyses for the datasets of interest
- Support the rest of the team with ageing-related insights to direct the implementation of machine learning models, including deep artificial neural networks;
- Integrate and interpret results from multiple analyses,
- Contribute to the mathematical/computational models in relation to the biology of ageing,
- Publish and present results to the group, at scientific meetings and in scientific papers

While not the main focus of the post, being in an interdisciplinary team will also offer the successful candidate the opportunity to train in other fields than his/her own (e.g.

theoretical and experimental biology, bioinformatics, computer science, machine learning and systems biology).

The post will require the successful candidate to be able to present his/her work to the rest of the group and occasionally might also require him/her to attend and present at national and international meetings. Depending on the existing skill set and the candidate's career goals, attendance to various training courses could also be available.

Skill requirements:

- Work experience in the field of ageing research
- Being able/open to work in a multi-disciplinary team and in a fast-paced work environment
- Excellent ability to communicate (oral/written/presentations) and work well in a team

Optional but desirable skills:

- Hands-on experience in bioinformatics (additional to that in ageing research)

Eligibility requirements:

- Primary degree in a field that is relevant to biology of ageing

Career stage:

Mid-stage. At least 4 years experience in ageing research – 1 position

For any formal or informal inquiries (e.g. discussing ideas of fun team building activities), prospective students and postdocs are **encouraged** to contact me by e-mail at: robi.tacutu@gmail.com.

For eligibility, the job application must include the following documents:

- Request for job application (form can be found on our website)
- Curriculum Vitae
- Copy of diploma for highest academic grade achieved
- Letter of intent
- A minimum of two letters of recommendation

It should be noted, that upon successful selection, the candidate might be required to provide additional documents (eg: copy of official ID, all academic diplomas, criminal records, etc) or authorized translations of these (if the official document language is not Romanian).

Job applications should be sent before 16:00, **22.09.2018**, by e-mail at robi.tacutu@gmail.com or directly at the Institute of Biochemistry of the Romanian Academy, Bucharest, Splaiul Independentei, nr 296, sector 6, room 307 (Human resources), for the attention of Dr. Robi Tacutu. We estimate that job interviews will take place within the next week after the job deadline, at the Institute's location (in special cases, skype interviews can also be arranged).

Job first posted on: **22.08.2018**

Group's webpage: www.aging.biochim.ro; www.aging-research.group

Bioinformatician/Gerontolog. Data curator in gerontologie

Institutul de Biochimie al Academiei Romane, Splaiul Independentei 296, Bucuresti, Romania, 060031, scoate la concurs **un post vacant de asistent de cercetare, cu responsabilitati de data curator/bioinformatician** in domeniul biogerontologiei. In urma concursului, candidatul selectat se va alatura grupului de cercetare **Biologie Computationala a Imbatranirii** in cadrul Departamentului de Bioinformatica si Biochimie Structurala.

Descrierea postului: Postul este finantat printr-un proiect EU POC-A1-A1.1.4-E-2015 Programul Operational Competitivitate 2014-2020, pentru dezvoltarea unui „*Sistem de predictie bazat pe integrare multi-omics pentru prioritizarea interventiilor gerontologice*” (GERONTOMICS). Durata proiectului este de un an, cu posibilitatea de prelungire pana la 2 ani, in baza unei performante satisfacatoare. Persoana selectata va lucra cu norma **intreaga** in cadrul proiectului.

Prin proiectul GERONTOMICS grupul nostru isi propune utilizarea metodelor de „systems biology” pentru a integra date de la diferite niveluri „omics” (e.g.: genomica, transcriptomica, epigenomica, etc), folosind o gama larga de modele de imbatranire, cu scopul de a crea o platforma computationala de analiza si predictie a interventiilor experimentale in gerontologie. Proiectul include atat aspecte computationale (agregare si procesare de date, analiza multi-dimensională, metode de analiza de retele, metode de teoria sistemelor, etc), precum si experimente wet-lab (validarea experimentală a unui set prezis de interventii gerontologice), fiind sustinut de o echipa multi-disciplinara.

Se cauta candidati motivati de cercetare, posesori ai unei diplome de doctor (sau doctoranzi) intr-un domeniu relevant Gerontologiei. Candidatii trebuie sa aiba deja experienta in domeniul cercetarii imbatranirii. Datorita echipei cu componenta internationala, cunoasterea limbii engleze este obligatorie. Competente aditionale in bioinformatica, statistica, stiinta datelor (data science) sau informatica reprezinta un avantaj, dar nu sunt absolut necesare.

Responsabilitati: Sub indrumarea conducatorului de proiect, asistentul de cercetare va colabora cu ceilalti membri ai echipei pentru catalogarea seturilor relevante pentru studiul imbatranirii si a articolelor de specialitate. Asistentul de cercetare va sustine de asemenea grupul cu adnotari manuale ale diferitelor seturi de date si va participa in planificarea experimentelor si a analizelor. In functie de experienta anterioara, asistentul de cercetare va putea efectua si analize bioinformaticice sau experimente de laborator relevante proiectului.

Ca data curator/bioinformatician, responsabilitatile candidatului vor fi:

- Colaborarea cu echipa pentru planificarea analizelor bioinformaticice si a experimentelor,
- Review al literaturii de specialitate pe diverse subiecte relevante imbatranirii,
- Implicare in catalogarea datelor si cunostintelor colectate/obtinute in proiect,
- Ocazional, realizarea de analize bioinformaticice/statistice pentru seturile de date de interes
- Sustinerea echipei cu cunostinte de biogerontologie pentru ghidarea implementarii de modele de invatare automata, inclusiv retele neuronale artificiale adanci,
- Integrarea si interpretarea rezultatelor analizelor,
- Contributia la crearea de modele matematice/computationale in biologia imbatranirii,
- Publicarea si prezentarea rezultatelor in cadrul grupului, la intalniri stiintifice si in jurnale de specialitate

Ca membru al unei echipe inter-disciplinare, candidatul selectat va avea ocazia de a-si dezvolta aptitudini si de a acumula cunostinte si in alte domenii decat domeniul sau de activitate (e.g. biologie teoretica si experimentală, bioinformatica, stiinta calculatoarelor/automatica, invatare automata si „systems biology”).

In functie de necesitate, candidatul selectat trebuie sa aiba si capacitatea de a prezenta rezultatele activitatii sale la intalniri cu intregul grup si ocazional la conferinte nationale sau internationale. Participarea la unele cursuri de formare este de asemenea posibila.

Cerintele post-ului:

- Experienta de cercetare in domeniul gerontologiei (ageing research)
- Capabil de/deschis la lucru intr-o echipa multi-disciplinara si intr-un mediu de lucru agil
- Capacitate ridicata de comunicare (oral/scriis/prezentari) si de a lucra in echipa

Skill-uri optionale dar care constituie un avantaj:

- Experienta practica in bioinformatica (pe langa cercetarea in gerontologie)

Criterii de eligibilitate:

- Diploma de studii intr-un domeniu relevant biologiei imbatranirii

Nivel in cariera:

Mid-stage. Minim 4 ani de experienta in cercetarea imbatranirii – 1 pozitie

Pentru orice intrebari formale sau informale (e.g. propuneri „fun” pentru activitati de „team building”), orice candidat, student sau postdoc este **incurajat** sa ne contacteze prin e-mail la: robi.tacutu@gmail.com.

Pentru inscrierea la concurs, candidatii vor prezenta un dosar care va contine:

- Cerere participare la selectie (modelul pentru cerere poate fi gasit pe site)
- Curriculum Vitae
- Copie dupa ultima diploma de absolvire
- Scrisoare de intentie
- Minimum doua scrisori de recomandare

De mentionat, in cazul candidatilor selectati, este posibil ca la momentul incheierii contractului sa fie cerute si alte documente (e.g.: copie act identitate, toate diplomele de studii, cazier judiciar, etc) sau copii autorizate ale acestora (daca documentul nu este in limba Romana).

Dosarele de concurs se primesc pana la data de **22.09.2018**, ora 16:00, prin e-mail la adresa robi.tacutu@gmail.com sau la sediul Institutului de Biochimie al Academiei Romane din Bucuresti, Splaiul Independentei, nr 296, sector 6, cam 307 (Resurse umane), in atentia Dr. Robi Tacutu. Estimam ca interviurile se vor desfășura în saptamana urmatoare deadline-ului, la sediul Institutului (in cazuri speciale, este posibila si aranjarea unui interviu prin skype).

Anunt postat incepand cu data: **22.08.2018**

Pagina grupului: www.aging.biochim.ro; www.aging-research.group