

Biostatistician 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 biostatistician** in aging research. The successful candidate will then join the **Computational Biology of Ageing 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 will involve 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 Statistics (or a similar/related field – ex: Math, Computer Science, etc), with excellent command of the English language. Additional competencies in biology of ageing are an advantage but are not required.

Job responsibilities:

The research assistant will be involved in various bioinformatics analyses and will be tasked with carrying out the statistical analyses and collaborating on a series of data mining and machine learning algorithms.

As a biostatistician the candidate’s responsibility will be to:

- Design (together with the rest of the team) the bioinformatics analyses,
- Carry out statistical analyses for the datasets of interest
- Collaborate with the rest of team to implement algorithms used towards training and evaluating complex machine learning models, including deep artificial neural networks;
- Integrate and interpret results from multiple analyses,
- Create adequate 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. gerontology, 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:

- Formal training as a statistician or similar (strong background in statistics)
- Hands on experience with statistical methods, in particular in biology (this will be considered an advantage)
- Being able/open to work in a multi-disciplinary team and in a fast-paced work environment
- Ability to communicate (oral/written/presentations) and work well in a team

Optional but desirable skills:

- Familiarity with biology of ageing problems
- Familiarity with theoretical concepts from probability theory used in machine learning (ex. Bayesian reasoning, parametric estimators, maximum likelihood estimation);

Eligibility requirements:

- PhD degree or PhD student in Statistics (or equivalent/similar field)

Career stage:

Mid-stage biostatistician 2-7 years experience – 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 (additional documents will be required when signing the contract):

- 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 succesful selection, the candidate might be required to provide additional documents (eg: copy of official ID, all academic diplomas, criminal records, etc) or autorized 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** [job previously advertised on 15.02.2018]

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

Biostatistician in gerontologie

Institutul de Biochimie al Academiei Romane, Splaiul Independentei 296, Bucuresti, Romania, 060031, scoate la concurs **un post vacant de asistent de cercetare (biostatistician)** 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**.

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 rețele, 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) in domeniul Statisticii (sau intr-un domeniu echivalent/similar – ex: Matematica, Calculatoare, etc), cu o excelenta cunoastere a limbii engleze. Competente in biologia imbatranirii pot reprezenta un avantaj, dar nu sunt necesare.

Responsabilitati: Asistentul de cercetare se va ocupa cu analiza bioinformatica a datelor si va avea ca sarcina analiza statistica a datelor precum si colaborarea cu restul echipei pentru implementarea algoritmilor de data mining si de invatare automata.

Ca biostatistician, responsabilitatile candidatului vor fi:

- Proiectarea (impreuna cu restul echipei) analizelor bioinformaticice,
- Analiza statistica a diferitelor seturi de date de interes pentru proiect
- Colaborarea cu restul echipei pentru implementarea algoritmilor de antrenare si evaluare a modelelor de invatare automata, inclusiv rețele neuronale artificiale adanci;
- Integrarea si interpretarea rezultatelor analizelor,
- 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. gerontologie, 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:

- Educatie formala in domeniul statisticii sau similar (background solid in statistica)
- Experienta de lucru cu modele statistice, cu precadere in biologie (acest lucru va fi considerat un avantaj semnificativ)
- 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:

- Familiaritate cu domeniul biologiei imbatranirii
- Familiaritate cu concepte teoretice din teoria probabilitatilor, aplicate in invatare automata (ex. rationamente Bayesiene, estimatori parametrici, estimare folosind metoda verosimilitatii maxime)

Criterii de eligibilitate:

- Diploma de doctor sau dovada statutului de student la doctorat in an terminal in Statistica (sau un domeniu echivalent/similar)

Nivel in cariera:

Biostatistician mid-stage 2-7 ani experienta – 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 urmatoarele documente (documente aditionale vor fi necesare la momentul angajarii):

- 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).

Post postat la data: **22.08.2018** [post publicat anterior pe 15.02.2018]

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