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Research Engineer ETL for Health Data at the BSC Life Sciences Department for DATOS-CAT project (PPCC-DATOS-CAT_BSC)

Introduction to the vacant position:

Within the framework of **DATOS-CAT project** (“Implementation and database analysis in precision medicine”), an initiative under the “Plan Complementario de Biotecnología aplicada a la Salud”, coordinated by the Institute for Bioengineering for Catalonia (IBEC), we are **seeking a Research Engineer ETL for Health Data** to join the **Life Sciences Department from the Barcelona Supercomputing Center (BSC)**.

The candidate will coordinate the integration of Health Data from, and the required extraction software, a variety of sources into population databases. He/She will collaborate closely with the INB/ELIXIR-ES unit and will also drive projects in the area in close collaboration with domain experts in healthcare settings at local and national levels. Female candidates are especially encouraged to apply.

This position is in the context of the massive amount of health data available for research in the last years and the recent efforts at national and European levels to tap on those data to benefit patients. The use of such data should help scientists to better understand diseases and health conditions and provides new ways of identifying patients at higher risk. It also helps of preventing illness and of providing better treatments. This, in turn, improves health services' efficiency, optimising their resources where they matter the most. In the COVID-19 pandemic, using health data for research has enabled clinicians to quickly adapt to the new treatments available for critically ill patients and decision-makers to provide better urgent responses at different levels.

This Plan Complementario is co-financed by the Ministerio de Ciencia e Innovación and the Generalitat de Catalunya, with funds from the European Union NextGenerationEU (PRTR-C17.11)

The successful candidate will develop research involving:

Under the direction of Prof Alfonso Valencia, the applicant will carry out the following activities:

- Coordinate the integration of Health Data and the required extraction software from a variety of sources into population databases.
- Manage and support users of the INB/ELIXIR-ES research-oriented resources, including computational equipment, databases, and software infrastructures.
- Develop, document, and maintain the processes for extracting and organizing Health-related data.
- Develop, document, and maintain software for the integration and biological data, following the guidelines of ELIXIR.
- Identify, adopt and impulse mechanisms for health data curation in close collaboration with domain experts in healthcare settings.

The candidate will work at the BSC Life Sciences Department.

Requirements for candidates

Essential

- BSc or MSc in bioinformatics, computational biology, or computer sciences with significant bioinformatics experience

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- At least 2 years of experience in ETL processes for health research data.
- Experience in health research data management, including genomics data.
- Experience in the communication with domain experts in the clinic around health research data management, acquisition and sharing.
- At least 3 years of professional experience in programming languages ecosystems such as C++, Perl, Python, PHP and/or Java.
- Experience working with Unix/Linux systems.
- Project management skills: reporting, documenting and planning.
- Ability of understand scientific literature, and software documentation.
- Competencies and skills: Communication, Teamwork and collaboration, Commitment, Proactivity, Integrity, Critical and Analytical thinking. Used to work under pressure under strict deadlines.
- Fluent in English (written and spoken). Spanish and/or Catalan are a plus.

Advantageous:

Additional experience on one or more of the following will also be taken into account:

- Database design and management (SQL and NoSQL): MySQL/MariaDB, PostgreSQL, SQLite or similar; MongoDB, Elasticsearch, Cassandra or similar.
- Development, generation and use of software containers e.g. Docker, Singularity and/or Rkt, as well as their orchestration using docker-compose, Kubernetes, Ansible and/or similar technologies.
- Workflow managers such as Galaxy, Nextflow or similar.
- Research data management and most common bioinformatics data sources and formats.

We Offer:

- Number of available positions: 1
- Starting date: As soon as possible
- Working conditions: full-time temporary contract (6,5 months – end date depending on the starting date). Attractive salary
- Measures to reconcile work and family life (maternity and paternity leave, flexible schedule working hours, 23 working days of paid holidays, and nine leave days for personal matters, among others).
- Stimulating, interdisciplinary research and a high-quality international scientific environment.
- IBEC ensures equal access to professional development opportunities irrespective of employment status, length at IBEC, or other factors. The IBEC's yearly training catalogue offers a wide range of technical and transferable skills training, including mobility grants and a Mentoring program for researchers.
- An induction program to facilitate incorporation at IBEC and additional support are provided for foreigners to obtain Visa-working permits and to install in Barcelona.

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How to apply:

Until October 27th, an online application form is available through IBEC's dedicated site: <https://careers.ibecbarcelona.eu/>

Only those applications submitted before the deadline will be evaluated.

Reference: RA-TS

If you have any further questions regarding your application or the application process, please get in touch with us at jobs@ibecbarcelona.eu

Principles of the selection process:

IBEC is committed to the principles of the Code of Conduct for the Recruitment of Researchers of the European Commission and the Open, Transparent and Merit based Recruitment principles (OTM-R) <https://ibecbarcelona.eu/careers-at-ibec/jobs/>

IBEC's Commitment on equal opportunity:

Our strength and excellence as an international transdisciplinary Research Institute are based on diversity. Being an equal opportunity employer, we are committed to diversity and inclusion, so that we support employees irrespective of their gender, nationality, religion, disabilities, age, sexual identity or cultural and socioeconomic background."

IBEC actively looks for female candidates for Senior positions ensuring that at least 40% of shortlisted applicants invited to interview have to be women with comparable level of CVs as the male candidates. At the end of the evaluation process, in case of equal merit, priority will be given to female candidates.

For candidates with children that come from outside Barcelona, we offer babysitting services during the interview, so you don't have to worry about anything else than doing a good interview. Contact us if you are interested in this service.

IBEC, as a signatory of the San Francisco Declaration on Research Assessment (DORA), will consider, especially for early-stage investigators, much more the scientific content of research outputs, than publication metrics or the identity of the journal in which it were published.

Protection of personal data:

IBEC guarantees that candidates' personal data are processed in accordance with the requirements of the EU General Data Protection Regulation (GDPR) and Law 3/2018 on Data Protection.

Personal data will be processed solely for the purposes of the selection process.

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Who we are?

The Institute for Bioengineering of Catalonia, IBEC is an interdisciplinary research center focused on Bioengineering and Nanomedicine based in Barcelona. IBEC is one of the top research institutions named as a Severo Ochoa Research Centre by the Ministry of Science, Universities and Innovation, which recognizes excellence at the highest international level in terms of research, training, human resources, outreach and technology transfer.

IBEC's mission is to develop international high-quality interdisciplinary research that, while creating knowledge, contributes to making a better quality of life, improving health and creating wealth. A close link with key universities, reference hospitals and corporations, are assets that facilitate achieving the mission.

IBEC was established in 2005 by the Generalitat de Catalunya (Autonomous Government of Catalonia), the University of Barcelona (UB) and the Technical University of Catalonia (UPC).

IBEC is located within the Barcelona Science Park and is managing 3.800 square meters facilities, with an annual budget of 22 Mio€; 4.150 square meters of facilities; 21 research groups and a team of researchers and support services of 400 people from 35 different countries. www.ibecbarcelona.eu