



Offer #2024-08193

Chronic inflammatory diseases endotyping Researcher (M/F)

Contract type : Fixed-term contract

Level of qualifications required : PhD or equivalent

Fonction : Tempary Research Position

Level of experience : From 3 to 5 years

About the research centre or Inria department

The Inria University of Lille centre, created in 2008, employs 360 people including 305 scientists in 15 research teams. Recognised for its strong involvement in the socio-economic development of the Hauts-De-France region, the Inria University of Lille centre pursues a close relationship with large companies and SMEs. By promoting synergies between researchers and industrialists, Inria participates in the transfer of skills and expertise in digital technologies and provides access to the best European and international research for the benefit of innovation and companies, particularly in the region.

For more than 10 years, the Inria University of Lille centre has been located at the heart of Lille's university and scientific ecosystem, as well as at the heart of Frenchtech, with a technology showroom based on Avenue de Bretagne in Lille, on the EuraTechnologies site of economic excellence dedicated to information and communication technologies (ICT).

Context

The position will take place in a pluridisciplinary team composed of mathematicians, data scientists, clinicians; a unique multidisciplinary environment focused on developing novel computational tools for **chronic inflammatory diseases (CID) to better understand them and the applied treatments**. The person to be recruited will benefit from a secured access to large local hospital repository composed of multi-omics data, to additional large European databases and to the required computing resources. The proximity with top level medical researchers in the domain will allow for a fine exploration of this mass of clinical data.

This job offers unique possibilities in a rich collaborative context including a world-wide recognised research team in precision medicine supported by Inria, Inserm and Lille university hospital centre. It also allows a unique access to large bank of medical data.

The person to be recruited will work in collaboration with Pr. Vincent Sobanski, from CHU and INSERM.

Assignment

The goal of this position is to develop innovative methods to characterize endotypes of chronic inflammatory diseases (CID) based on the integrative analysis of patients combining clinical and follow-up data (highly heterogeneous information) and multi-omics profiles (high-dimensional information). This will allow to improve the CID nosology.

Main activities

Main activities:

- Review of the literature
- Benchmark of existing methods
- Development of novel supervised and non supervised clustering algorithms for multiomic data
- Interactions with the biological and clinical partners
- Supervision of data scientists (research engineers, phd students and postdoctoral fellows)
- Test and validation

Additional activities:

- Continuous integration / continuous deployment of the code
- Data visualization
- Statistical reporting to the partners

Skills

Technical skills and level required :

- Strong background in statistics and machine learning
- Hands-on experience with real-world medical data analysis
- Experience in computer vision is a plus
- Strong motivation for medical and societal applications of computational methods
- Knowledge of biology and/or medicine is a plus
- Ability to work both independently and as a team, good relational skills
- Excellent programming skills in a scripting language (R and/or Python)

Additional:

- English speaking
- Academic writing skills
- Oral presentation skills

Benefits package

- Subsidized meals
- Partial reimbursement of public transport costs
- Leave: 7 weeks of annual leave + 10 extra days off due to RTT (statutory reduction in working hours) + possibility of exceptional leave (sick children, moving home, etc.)
- Possibility of teleworking and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training
- Social security coverage

Remuneration

According to the profile

General Information

- **Town/city** : Villeneuve d'Ascq
- **Inria Center** : [Centre Inria de l'Université de Lille](#)
- **Starting date** : 2025-01-01
- **Duration of contract** : 2 years
- **Deadline to apply** : 2024-12-07

Contacts

- **Inria Team** : INRIA
- **Recruiter** :
Mitton Nathalie / Nathalie.Mitton@inria.fr

About Inria

Inria is the French national research institute dedicated to digital science and technology. It employs 2,600 people. Its 200 agile project teams, generally run jointly with academic partners, include more than 3,500 scientists and engineers working to meet the challenges of digital technology, often at the interface with other disciplines. The Institute also employs numerous talents in over forty different professions. 900 research support staff contribute to the preparation and development of scientific and entrepreneurial projects that have a worldwide impact.

The keys to success

We are looking for a candidate that owns a PhD in computer science, who is creative in proposing solutions and capable of critical analysis of results. We demand the applicant:

1. to be curious and interested in new technologies
2. to have appetite for medical world
3. to have a background in IoT and statistics and machine learning
4. to be fluent in spoken and written English with strong communication and presentation skills
5. Experience with hands-on experience with real-world medical data analysis

Warning : you must enter your e-mail address in order to save your application to Inria. Applications must be submitted online on the Inria website. Processing of applications sent from other channels is not guaranteed.

Instruction to apply

Defence Security :

This position is likely to be situated in a restricted area (ZRR), as defined in Decree No. 2011-1425 relating to the protection of national scientific and technical potential (PPST). Authorisation to enter an area is granted by the director of the unit, following a favourable Ministerial decision, as defined in the decree of 3 July 2012 relating to the PPST. An unfavourable Ministerial decision in respect of a position situated in a ZRR would result in the cancellation of the appointment.

Recruitment Policy :

As part of its diversity policy, all Inria positions are accessible to people with disabilities.