

ANGERS UNIVERSITY

CRCI2NA Team 4
Innate Immunity and Cancer
Head: Yves Delneste
Supervision: Damien Luque Paz
Co-supervision: Jérémie Riou

Junior Contract Researcher
Post-doctoral contract in
Bioinformatics/Biostatistics
Category : A

Position Summary

We are looking for a highly motivated and skilled postdoctoral researcher to join our team for a project on the study of secondary acute myeloid leukemia.

The candidate will join the CRCI2NA team 4 (<https://urlr.me/jrPHM>) on a project led by Prof Damien Luque Paz (Hematology) and Prof Jérémie Riou (Biostatistics) in a consortium of 6 French Inserm teams.

Presentation of the University of Angers

In the heart of a region recognized for its quality of life, the University of Angers, the 3rd largest employer in the region, offers an environment conducive to the development of its staff and students. The UA is a multidisciplinary university, welcoming more than 26000 students spread over 3 campuses and 2 relocated campuses (in Cholet and Saumur). It has 8 components (5 UFR, 1 IUT, 1 internal engineering school and 1 internal business and management school), and 31 federative research units and structures. Thanks to the many innovative projects it carries out and its openness to the world, the UA allows everyone to evolve in a stimulating environment. Its annual budget is €156 million (including €123 million in payroll). The UA has 1167 teachers and teacher-researchers, 917 administrative and technical staff and nearly 2000 individual contractors and is looking for involved and daring actors. You recognize yourself in this job offer ? Join us !

Contract features:

Starting date: first semester 2025 (available position)

Contract duration: 24 months French law work contract (12 months renewable for one additional year)
The team will also support candidates to apply for a permanent research position (Inserm) with the objective to initiate an original project in line with the general project of the team.

Work quota: 100%

Monthly wage: 2750€ gross

Location: Angers University, CRCI2NA Team 4 Laboratory,

Name of research project: **MultiOmic characteriZation of acute myeloid leukemia evolving from myeloproliferative neoplasm to identify new Targeted therapeutic strategies (MOZART)**

Description of the research project in which the research activities entrusted to the officer take place:

We study acute myeloid leukemia (AML) secondary to myeloproliferative neoplasms (MPN), which are associated with a grim outcome with median overall survival ranging between 2 to 10 months. The project aims to identify new targeted therapeutic approaches in post-MPN AML by combining a multiomics analysis with an ex vivo drug screening and preclinical PDX mouse models. The candidate will work on the first step of the project dedicated to the in-depth characterization of the dysregulated pathways. Thus, we will first characterize an already annotated cohort of 120 post-MPN AML for DNA-seq (300 genes + CNV), RNA-seq and methylome (data already available for half of the cohort). The candidate will be in charge of the analysis of these data using multi-layer clustering methods and pathway/network analyses.

Work environment:

The work environment is very stimulating. The candidate will work closely with the research team members including biologists, bioinformaticians and physicians. The institute (Institut de Biologie en Santé) is located in the hospital and university campus of Angers and held several research teams including our own. The institute had a genomic facility and a bioinformatician platform (4 bioinformaticians). The lab will offer a personal linux computer with RAM (128Go) and CPUs (24) for routine calculation together with an access to the regional computing cluster. The candidate will also have interactions with other researchers and bioinformaticians from the consortium, especially those in charge of splicing analysis (Inserm U1078) and scRNA-seq (Inserm U1068).

Key Responsibilities:

- Analyze and interpret multi-omics datasets using advanced bioinformatics and biostatistics methods
- Identify clusters in multi-omics dataset (mutational profile (mutations, CNV and fusion genes), the methylome, mRNA and lncRNA, expression and splicing)
- Perform functional enrichment analysis and networks to identify dysregulated pathways in clusters
- Develop novel methods and tools to analyze RNAseq, UMI DNA-seq and methylome datasets
- Interact and collaborate within our multidisciplinary team and the national consensus group to provide bioinformatics support for ongoing projects
- Contribute to scientific publications and present findings at conferences.

Expected skills:

- Strong programming skills in R, Python, or similar languages.
- Experience in multi-omics data analysis, including at least RNAseq data.
- Familiarity with clustering and pathway analysis tools.
- Excellent problem-solving skills and ability to work independently as well as collaboratively.
- Strong communication skills, both written and verbal
- Fluency in English

Qualifications

PHD degree of less than 3 years

Specialty : Bioinformatics/Biostatistics

Recruitment procedures and contact :

You must submit your CV, cover letter and doctoral degree by mail at : damien.luquepaz@univ-angers.fr copy to : recrutement@univ-angers.fr

Deadline for applications: 30-03-2025

This job description is available until the closing date for applications.

On that date, it will no longer be available on the website.

If needed, your contact for any further information at damien.luquepaz@univ-angers.fr