JOB DESCRIPTION — Research Engineer in Atomic Force Microscopy

Job Title: Research Engineer in Atomic Force Microscopy
Unit: ICB UMR CNRS 6303
Work Location: Dijon
Contract Type: UBE fixed-term contract (24 months)
Start Date: June 2026
Salary: According to UBE salary scale

Main Mission

The i-NanoT project, funded by European Union, aims to design, develop, characterize and manufacture theranostic nanovectors for applications in oncology and the treatment of infectious and inflammatory diseases. Nanomedicine is a recent therapeutic approach with a still underdeveloped industrial deployment, and has indeed considerable needs: the requirement for batch reproducibility, the difficulty in characterizing nanoobjects, and the urgent need for industrial scale-up. We aim to propose innovative solution for the characterization of nanovectors, in order to propose standardized operating procedures (reproducibility) and quality control.

The recruited engineer will contribute to the development, optimization, and operation of advanced microscopy devices, notably High-speed AFM and AFM-IR (atomic force microscopy coupled with infrared spectroscopy) and other nano-imaging instruments. He/She will bring instrumental and methodological expertise to support the i-NanoT project, in an interdisciplinary approach at the interface between Physics, Chemistry and Biology.

Main Activities

- Develop, adapt, and maintain complex experimental setups (microscopy, nano-spectroscopy, optical instrumentation).
- Design and carry out experimental protocols adapted to various samples (biological, material).
- Ensure advanced data processing and analysis (spectra, images, mappings).
- Maintain, improve, and ensure the smooth functioning of the equipment.
- Train and assist internal and external users (PhD students, postdocs, researchers).
- Contribute to the drafting of technical reports, scientific publications, and to the valorisation of results (patents, technology transfers, software).

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Required Skills

- In-depth knowledge of microscopy techniques (AFM, NanoIR, confocal, etc.) and spectroscopic techniques;
- Strong skills in scientific instrumentation (optics, mechanics, electronics) and/or data processing (Python, Matlab, etc.);
- Methodological rigor, organizational skills, ability to work in a multidisciplinary team.
- Good command of scientific English (reading, writing);
- Ability to draft technical documents and present results.

Education and Experience

- Degree: PhD in Biophysics or Nanosciences with a strong background in biology;
- Highly-motivated candidate for experimental work.

Work Environment

The position is opened in the Laboratoire Interdisciplinaire Carnot de Bourgogne (ICB) which is a joint research unit of Université Bourgogne Europe (UBE) and CNRS. Located in Dijon, a city of arts and history and capital of the Burgundy Franche-Comté region, ICB is a multidisciplinary laboratory developing new optical functionalities and new materials for industry, medicine and telecommunications. The recruited engineer will join a team of researchers, engineers, and PhD students. He/She will collaborate with national and international partners (academic and industrial).

Application

Please send a CV + cover letter + any letters of recommendation to:
Eric Bourillot: Eric.Bourillot@u-bourgogne.fr
Eric Lesniewska: eric.lesniewska@u-bourgogne.fr
Olivier Piétrement: olivier.pietrement@cnrs.fr

Application deadline: 30th April 2026

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