



## **AFM Biotechnician for a clinical study job offer**

An international consortium, including a research group at the School of Medicine at the *Universitat de Barcelona* (UB), the Functional Unit of Thoracic Tumors at the *Hospital Clínic de Barcelona* (HCB), and the swiss start-up technological company Artidis in Basel (ARTIDIS) are looking for an Atomic Force Microscopy (AFM) biotechnician to work on a clinical study in lung cancer.

### **Job purpose**

Solid tumors are often detected macroscopically by surgeons and even patients through manual palpation due to their increased stiffness. However, the confirmation of malignancy requires further tissue assessment in a pathology lab, which is a lengthy procedure. Researchers of this consortium showed a few years ago that the same idea of stiffness measurement applies at the nanoscale, since characterizing the local nanomechanical properties of tissue biopsies with AFM could distinguish between normal and tumor tissue (Plodinec et al, *Nat Nanotech* 2012). Likewise, other researchers of this consortium have extensive experience in mechanical measurements of cells and other tissue components with AFM (Alcaraz et al, *EMBO J* 2008) and in the clinical management of lung cancer (Majem et al. *Clinical and Translational Oncology* 2019.). The main goal of this study is to assess the potential for fast diagnosis and nanomechanical profiling of lung biopsies obtained from surgical patients with the ARTIDIS Device (based on AFM) and further develop the nanomechanical biomarker for lung cancer prognosis and therapy optimization. For this purpose, the technician will use the ARTIDIS Device, which is specifically designed for fast measurement of the nanomechanical properties of fresh tissue samples. The project will involve interacting with professionals at the Hospital Clinic and at Artidis. Providing that this is a clinical study, previous experience in clinical studies is highly desirable.

### **Duties and responsibilities**

- Management of clinical study specimens provided by professionals at the HCB;
- Running full cycle measurements on the ARTIDIS device at the UB;
- Writing, organization, and tracking of SOPs and clinical trial-related and regulatory documentation according to international and GCP standards;
- Coordination of all involved groups (surgery, pathology, data entry, sponsor) to ensure the smooth running of the project;
- Act as the main contact person between HCB, UB, and ARTIDIS
- Taking responsibility to coordinate the project on the investigator site;
- Active participation in all team activities related to this project;
- Acquire the necessary training and expertise in all the topics of the project, including clinical study coordination, ARTIDIS measurements, lung cancer, and biomechanics;
- Comply with the high ethical and professional standards of the HCB, UB, and ARTIDIS;

### **Qualifications**

- Graduate (BSc) in Biomedical Engineering, Material Sciences, Biomedicine, Nanosciences, Physics, Biotechnology, or related fields. A master's degree (MSc) is a plus;
- Previous working experience in clinical studies (such as clinical research coordinator) is desirable;



- Previous experience with scientific instrumentation in academia and/or industry for 1-year minimum (at the level of end-of-degree or end-of-master projects, internships, etc.).
- Experience with AFM or other mechanobiology techniques is a plus;
- Enthusiastic, motivated, committed, and friendly team player;
- Fluent in English and Spanish (oral and written);
- Highly responsible and well organized; able to work as part of a team, and to find creative solutions when needed;
- Curious mind and highly motivated and open to facing new challenges and working in a multidisciplinary environment;

### **Working conditions**

This is a full-time position with a very competitive salary and the possibility to increase it after the first year for outstanding performance. This job is expected to start immediately, and to last until the conclusion of the clinical study (expected 3 years).

Most of the work will take place in the laboratories of the Unit of Biophysics and Bioengineering at the School of Medicine at the UB (Casanova 143, Barcelona 08036). This project will also involve interacting with clinicians and other health professionals at the HCB, and with the scientists and engineers at Artidis. The work environment is fully committed to the safest standards with regard to the covid-19 and will adapt to new regulations that may arise. Overall, this job will take place within a stimulating, interdisciplinary and international environment.

### **Application - Contact**

The initial closing date for this application is November 30th, 2022. We encourage applicants to submit their applications as soon as possible.

We look forward to receiving your online application with CV, motivation letter, academic grades, and support letters (including names and contact information (email, address)) of 2–3 referees (one of them must be the supervisor at the end of degree project and end of the master project, if applicable).

Please, send your application by email to Jordi Alcaraz ([jalcaraz@ub.edu](mailto:jalcaraz@ub.edu)) with the email subject: AFM JOB OFFER 2022 + your name.