

Scientist/Senior Scientist – Bioanalysis of Antibody-Drug Conjugates (ADCs) using Mass Spectrometry, R&D

Location: Lyon, France (on-site)

Position Type: Full-time, 18 months, starting early 2026

Company and context

Mablink Bioscience, a wholly owned subsidiary of Eli Lilly and Company based in Lyon, is specialized in the development of next-generation Antibody-Drug Conjugates (ADCs). Mablink/Lilly has developed a proprietary hydrophilic linker technology, PSARlink™, that improves the pharmacokinetics and therapeutic index of ADCs, enabling better tumor penetration and reduced off-target toxicity. ADCs are complex biopharmaceuticals composed of monoclonal antibodies linked to cytotoxic drugs. Their development requires advanced analytical techniques to characterize their structure, stability, and biological activity.

The BIOConjugation and Analytical Development team (BIOCAD) focuses on the bioconjugation and complete characterization of innovative ADCs, using state-of-the-art LC/MS systems as well as various stability indicating assays.

Project Overview

We are seeking a highly motivated scientist to join our BIOCAD team to develop and apply advanced bioanalytical strategies for the characterization of ADCs. The project will focus on the use of mass spectrometry to study:

- Drug-to-Antibody Ratio (DAR) profiling (native and reduced).
- DAR plasma / media / blood stability.
- Peptide mapping and site-specific conjugation analysis.
- Lysosomal degradation assays, study of linker-payload metabolism.
- Free-payload release, small molecule quantification.

Key responsibilities

- Develop and optimize LC-MS and LC-MS/MS methods for intact protein, conjugates and peptide-level analysis.
- Perform ex vivo stability studies in biological matrices.
- Participate in the development of high-throughput (HT) analytical screening assays using Tecan Fluent liquid handler.
- Contribute to the daily maintenance and operational readiness of laboratory instruments (e.g., HPLC, QTOF, Triple Quad).
- Maintain thorough documentation of experimental procedures in electronic notebook, writing of reports and technical documents.
- Deepen scientific and technical expertise through familiarity with scientific literature.
- Collaborate with multidisciplinary project teams to present and discuss experimental results.
- Participate and present periodic updates and reports to the manager.

- Maintain a safe, pleasant, and efficient working environment.

Profile

- PhD in Analytical Chemistry, Biochemistry, or related field.
- Strong expertise in biomolecule mass spectrometry (Orbitrap / QTOF / Triple Quad) and HPLC.
- Experience in biomolecule analysis is mandatory (bottom-up, middle-down and top-down strategies).
- Experience with ADC conjugation and characterizations methods including UV-Vis, SEC, HIC, IEX, icIEF and LC-MS is a plus.
- Familiarity with data analysis tools (e.g., MassHunter, SCIEX OS).
- Fluency in English is essential, both orally and in writing, for the drafting of technical documents/regulatory files and for daily communication.
- Team-oriented, autonomous, and scientifically curious.

What We Offer

- A dynamic and science-driven environment with opportunities to impact early oncology drug development.
- Competitive compensation and benefits.
- Opportunities for scientific growth, cross-disciplinary learning, and career advancement.

To Apply

Please send your CV and a brief cover letter to Pierrick BRUYAT at pierrick.bruyat@lilly.com.