Postdoctoral Fellow in Peptide & Medicinal Chemistry

Florida Atlantic University (FAU) – Roche Research Group

The Roche Research Group at Florida Atlantic University is seeking a highly motivated **Postdoctoral Fellow** to join an interdisciplinary research program focused on developing next-generation peptide therapeutics targeting protein–protein interactions (PPIs) in inflammatory disease.

This Leo Foundation–supported project leverages the **ADAPT platform**, a novel technology that converts antibody CDR-H3 loops into β-hairpin peptide mimetics with antibody-like specificity and improved pharmacokinetic properties (*RSC. Chem. Biol.* **2024**, *5*, 1259; *ACS. Chem. Biol.* **2024**, *7*, 1583; *ACS Med. Chem. Lett.* **2023**, *14*, 278). The primary biological focus of this project is the inhibition of **IL-17 and IL-23 signaling pathways** relevant to psoriasis (I&I).

Responsibilities

- Design, synthesize, and characterize CDR-H3–mimetic β-hairpin peptides using solid-phase peptide synthesis (SPPS)
- Develop and screen non-covalent and covalent peptide libraries
- Perform peptide folding and stability analyses (CD spectroscopy, VT-CD)
- Conduct structural studies by NMR spectroscopy
- Collaborate on biochemical, cellular, and in vivo validation studies (ELISA, keratinocyte assays, murine psoriasis models)
- Analyze and integrate chemical, biophysical, and biological data for publication
- Contribute to manuscripts, grant reports, and collaborative discussions

Required Qualifications

- Ph.D. in Chemistry, Medicinal Chemistry, Chemical Biology, or a closely related field
- Strong background in synthetic organic or peptide chemistry
- Experience with SPPS and peptide purification (HPLC, LC-MS)
- Ability to work independently while contributing to a collaborative research team

Preferred Qualifications

- Experience with peptide secondary structure analysis (CD, NMR)
- Familiarity with covalent inhibitors or protein–protein interaction modulators
- Interest in translational research and drug discovery

Appointment & Compensation

- **Duration:** Up to 3 years
- **Salary:** $62,000 per year **plus full benefits**
- **Start Date:** Preferably March-April 2026

The successful candidate will work in a well-equipped laboratory environment and interact closely with collaborators at the Miller School of Medicine at the University of Miami, the University of Colorado, and UF-Scripps for biological and pharmacokinetic studies.

To apply: Please submit a CV, brief statement of research interests, and contact information for 2–3 references to Dr. Stephane Roche (sroche2@fau.edu).