



Scientist/Principal Scientist - Expert in Peptide design/generation and optimization

About us

Coave Therapeutics is a pre-clinical-stage biotechnology company committed to developing groundbreaking gene therapies. Powered by its proprietary ALIGATER™ (Advanced Vectors-Ligand Conjugates) platform, Coave develops a novel class of AAV and LNP gene delivery systems with superior targeting, specificity, efficacy across a wide range of applications. Importantly, the platform streamlines manufacturing by eliminating the need for prior AAV capsid modifications. By overcoming critical challenges in delivering genetic payloads to extra-hepatic tissues, Coave is building a pipeline of innovative gene therapies aimed at transforming the treatment of rare and common diseases, with a particular focus on muscle, neuromuscular, and eye diseases.

Job Description

Job description will vary depending on level of experience

We are looking for a highly motivated and experienced PhD or BS/MS's-level peptide expert to lead and drive research and development efforts in the generation of peptides using both experimental and computational approaches to advance our internal peptide-conjugated vectors (AAV & LNP) discovery programs. The ideal candidate will have a strong background in peptide chemistry and synthesis, phage display technologies, AI-driven peptide generation, and in silico modeling, with a track record of delivering innovative solutions in peptide science. The successful candidate will communicate effectively with internal and external collaborators to achieve project objectives and will work efficiently in a multi-disciplinary team environment.

Key responsibilities

- Contribute to scientific strategies and goals within a project team setting,
- Lead and manage peptide generation projects (outsourced activities), utilizing phage display and/or other state-of-the-art peptide discovery technologies,
- Lead and manage (outsourced activities) peptide design and optimization, prediction, and screening processes through AI-based tools and algorithms,
- Lead and manage (internally or externally) in silico simulations and molecular modeling to predict peptide-receptors interactions, stability, and binding affinities,
- Analyze peptide data, identifying key patterns and opportunities for optimization,
- Collaborate with interdisciplinary teams to design and validate peptide-based candidates for various therapeutic applications,
- Stay UpToDate with the latest research in peptide engineering, AI applications, and phage display technologies,
- Present data and reports on project status at individual and group meetings,



- Contribute to the preparation of scientific reports, presentations, and publications and contribute to intellectual property generation.

Qualifications

- Ph.D. or a BS/MS's degree in Chemistry, Biochemistry, Molecular Biology, Biotechnology or a related field (or equivalent industry experience) with a focus on peptide research and 5+ years of relevant experience,
- Expertise in peptide design, optimization, synthesis, and characterization,
- Background in phage display technology, including library construction, screening, and analysis,
- Proficiency in *in silico* techniques for peptide modeling, molecular dynamics simulations, and structure-activity relationship (SAR) analysis,
- Experience in AI approaches for peptide generation, optimization, and screening,
- Ideally experience in computational biology or bioinformatics software,
- Ideally familiar with peptide-based therapeutic platforms (e.g., immunotherapy, antibody-drug conjugates),
- Excellent problem-solving skills, attention to detail, and the ability to work both independently and in collaborative team environments,
- Strong written and verbal communication skills, with a proven ability to publish research findings and communicate complex scientific concepts effectively.

Why Join Us?

- Be part of a pioneering team
- Work in a collaborative and innovative environment
- Opportunities for professional growth and development.