Research Associate

The Company

AI Proteins is a Boston-based biotechnology company focused on the *de novo* design and engineering of miniprotein therapeutics. We combine cutting-edge computational protein design and artificial intelligence with synthetic biology and laboratory robotics to accelerate the creation of life-changing medicines. Our common goal is to markedly improve human health and well-being. Our environment is rigorous and collaborative, bringing together passionate individuals who are making an impact. We inspire creativity by embracing an open culture that fosters initiative, teamwork, and excellence.

Position Summary

AI Proteins is looking for highly motivated Research Associates to join our team, with positions available in the following areas:
- Biophysics
- Pharmacology
- Bioprocess Development
- Biochemistry

The ideal candidates will have the opportunity to participate in all stages of the development pipeline, with specific emphasis depending on the focus of the team they join. As such, daily responsibilities will vary based on the position (see below). We are looking for individuals with a passion for innovation, a growth mindset, great attention to detail, and the ability to work collaboratively to solve problems in preclinical research and development. The position is ideal for a candidate with a solid understanding of laboratory benchwork who can effectively respond to changes and is resourceful, flexible, and driven to achieve in a dynamic environment.

We are specifically seeking to recruit candidates who are graduating in 2024 with a Bachelor's degree, and our target start date is in July of 2024 (start date is negotiable).

Responsibilities

General Responsibilities
- Prepare and/or assist in the preparation of internal reports, presentations, protocols, patents, and peer-reviewed scientific publications
- Attend regular group meetings to update fellow team members on research progress
- Contribute to building a positive, team-oriented biotech culture
- Organize and maintain laboratory reagents and supplies

- Maintain careful records of all experiments performed,data collected, and assist in the compilation of data

RA on our Biophysics Team
- Biophysical characterization of proteins in high throughput using multiple techniques including: circular dichroism (CD) spectroscopy, dynamic light scattering (DLS), analytical size exclusion chromatography (SEC), and high-performance liquid chromatography (HPLC)
- Determination of protein interaction parameters using surface plasmon resonance (SPR), and development of novel SPR-based methods
- Analysis of protein structure-function relationships by integrating data from multiple different sources such as: computational structure prediction, spectroscopy, SPR, and biochemical and biological assays
- Operate and maintain analytical instruments such as: SPR, CD spectrometers, liquid handling robots, and more

RA on our Bioprocess Development Team
- DNA cloning and strain development experiments in yeast and bacteria
- Support during setting up, operation, and maintenance of the upstream lab equipment such as bioreactors and metabolite and nutrient analyzers
- Operation and maintenance of downstream bioprocess-related equipment, such as fast protein liquid chromatography (FPLC), tangential-flow filtration systems, and filters to purify protein drug candidates for in vitro and in vivo preclinical studies

RA on our Biochemistry Team
- Execute antigen production, which involves the maintenance of Expi293 cell culture, transfection, and protein purification
- Support the automated production of miniproteins that will serve as lead therapeutics, from molecular cloning, transformation into *E. coli*, expression, purification, and quality control

RA on our Pharmacology Team
- Maintenance and preparation of suspension and adherent cell lines
- Execution of in vitro cell-based assays such as viability assays, co-culture assays, cell stimulation and activation assays
- Perform flow cytometry assays and ELISA/luminex related assays
- Ex-vivo processing and analysis of animal tissues

Professional Experience / Qualifications
- An undergraduate degree in a relevant discipline and/or relevant experience working in the biotech/engineering field

- Strong scientific background in one or more of the following areas: chemistry, biochemistry, biophysics, cell biology, immunology, oncology, microbiology, fermentation, or a related field
- Strong problem-solving skills with the ability to troubleshoot and resolve instrument issues
- Ability to operate independently and to design and perform complex experiments
- Driven, self-motivated personality
- Strong organizational, communication, and interpersonal skills
- No jerks. It's important to work in an environment that is fun, and where we treat one another with dignity and respect

What we Offer:

- We offer competitive salaries and a great 401k plan with matching on the first 5% of your salary. With our stock options, you can own part of the company and get rewarded when the team succeeds
- Be part of the team that brings a groundbreaking new modality of protein-based medicine to the world
- We have unlimited vacation so you can take the time off you need to rejuvenate and come up with the next amazing science idea
- We provide an unlimited amount of very fancy coffee - stay active but do not die
- Keep your glucose level steady with our snack bar, and choose from our unparalleled collection of salsas and hot sauces 🔥
- We are located in the heart of Fenway, surrounded by many great restaurants and entertainment opportunities
- Our location enables easy communication with other scientists, and we're just a short walk away from the Longwood medical area, which houses: Harvard Medical School, Boston Children's Hospital, Dana-Farber Cancer Institute, Brigham and Women's Hospital, and Beth Israel Deaconess Medical Center

Send your CV to: careers@aiproteins.bio. When applying, please note the position(s) of interest.