Research Scientist  
Greenberg Laboratory  
Harvard Medical School  
Department of Neurobiology  
Boston, MA

We are looking for skilled and ambitious individuals excited to unlock next-generation gene therapy-based cures for previously incurable genetic disorders.

About us

We are a team of research scientists in the Harvard Medical School Department of Neurobiology dedicated to repurposing natural mechanisms of gene regulation to engineer precision viral vectors for gene therapy. We employ PESCA\(^1\), a single-cell screening platform developed in-house, to sift through the mammalian genome and identify -- on demand -- regulatory elements capable of driving optimal patterns of viral transgene expression to address a wide range of diseases. We believe that such elements are a transformative and essential technology in the world of gene therapy, and that our approach and expertise uniquely position us at the forefront of next-generation viral vector design. Our collective mission is to employ these elements to create novel viral vectors that unlock the potential of gene therapy to cure genetic diseases with severe unmet need, with ambitions of spinning off a company to achieve this.

Description

We are recruiting a full-time Research Scientist to join our team, whose primary responsibility will be to collaboratively develop and then drive multiple iterations of the PESCA pipeline simultaneously while keeping progress within projected timelines. Day-to-day responsibilities include supervising and managing 2-3 predoctoral research assistants (RAs), as well as interpreting and troubleshooting the RAs’ experimental results, to ensure continued progress on all projects. The work will involve application of cutting-edge technologies such as single-cell RNA-seq and ATAC-seq, and interested applicants should be sufficiently experienced in wet lab work that they can capably perform all steps of the PESCA pipeline, so as to advise RAs efficiently. The advertised position will also entail coordinating new and existing high-budget commercial partnerships and high-level multitasking to keep these simultaneously ongoing projects on track.

To these ends, we are seeking highly motivated individuals with strong scientific backgrounds capable of efficient experimental planning, delegation, and management, who are excited by the prospect of pushing multiple projects to completion simultaneously in a fast-paced academic setting. The position will report directly to our core group of scientific leadership, offering a unique opportunity to play a lead role in developing promising new viral vectors of high therapeutic potential as part of a dynamic research group within the highly collaborative scientific environment that is the HMS Department of Neuroscience.

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\(^1\) [https://elifesciences.org/articles/48089](https://elifesciences.org/articles/48089)
Responsibilities

● Collaboratively develop and then strategically drive 4-5 simultaneously running parallel implementations of the PESCA platform, under supervision of core scientific leadership.
● Supervise, advise, and train research assistants who will perform the majority of bench experiments.
  ○ Preparing daily experimental schedule for each research assistant and delegating tasks across team.
  ○ Troubleshooting inconclusive/problematic experiments or results and advising next steps.
  ○ Use formal scheduling protocols and tools to ensure team coordination.
  ○ Dynamic and flexible thinking and experimental prioritization, and continuous evaluation of experimental quality and rigor, to ensure progress and reliable results.
● Coordinate with commercial partners.
  ○ Compose written project update summaries and present update slide decks.
● Report to core PESCA team leadership
  ○ Provide brief weekly progress updates, and longer monthly updates.
● Share insight for pipeline improvement and optimization

Basic qualifications:

● PhD in biological sciences
● 4+ years hands-on wet lab experience -- interested individuals should be capable of performing all steps of the PESCA pipeline, although the need should rarely arise as research assistants will perform the majority of bench experiments
  ○ Next-generation sequencing and library preparation (ATAC-seq, scRNA-seq, snRNA-seq)
  ○ Molecular biology techniques, including PCR, RT-PCR, ddPCR, and cloning
  ○ Sequence design (Oligo/primer/gBlock) and analysis (Benchling, Snapgene, APE, etc.)
  ○ FACS
  ○ Mouse colony maintenance
● Strong organizational and documentation skills
● Good time management and rigorous scheduling, as all projects must progress simultaneously
● Good interpersonal and collaborative skills, to maintain a friendly but professional working environment
● Strong scientific communication skills, to keep project supervisors informed
● Strong presentation skills, to present data to academic and industry collaborators

Preferred qualifications:

● 3+ years managing multiple high-budget projects, in industry or academic setting

Please apply through the Harvard HR website here.