

# Principal Scientist I/II, Viral Vector Cargo Design

Job ID  
REQ-10051173  
Jun 30, 2025  
USA

## Summary

This is a dual posting. The final level & title of the offer role would be determined by the hiring team based on the skills, experience & capabilities required to perform the role at the level the role has been offered

This position will be onsite in San Diego, CA  
Internal Title: Principal Scientist I/II

The Biologics Research Center (BRC) is accommodated within the Biomedical Research (BR). BRC, in collaboration with the disease areas (DA) and technical expert groups, builds the future biologics therapy pipeline of Novartis through the discovery and creation of new antibody, protein, nucleic acid and virus-based molecules.

We are currently recruiting a highly skilled, motivated, and independent Principal Scientist I/II to join our team. This laboratory-based position will be responsible for advancing our pipeline by designing and optimizing novel gene therapy cargos for multiple genetic disorders. This position will require creativity and a solid understanding of gene regulation to conceive and test novel therapeutic approaches to treat genetic disease. The candidate should have a deep understanding of AAV based gene therapy and expertise in RNA sequencing technologies. The candidate will also need to develop novel in vitro cell-based tools and genetic screens aimed at optimizing gene therapy cargos. This position will closely collaborate with other scientists, including computational biologists, in vivo pharmacologists, and external collaborators and CRO partners to advance the pipeline from ideas to preclinical development.

## About the Role

### Key Responsibilities:

- Designing, constructing, and characterizing cargos for candidate gene therapies in vitro by leveraging a variety of cell-based models and high throughput sequencing technologies
- Translating in vitro findings to in vivo models in collaboration with pharmacology
- Providing mentorship for junior associates and contributing to the scientific strategy of the team
- Maintaining up-to-date knowledge of emerging technologies and scientific approaches in the field of gene therapy
- Collaborating with cross-functional teams including bioinformatics, AAV production, and *in vivo* pharmacology teams to advance programs from discovery to development
- Preparing summaries of data and presenting internally to colleagues and management
- Drafting SOPs, following protocols, diligently documenting experimental data in electronic lab notebooks, and authorizing scientific reports for internal documentation or regulatory submissions

- Leading and contributing to publications and presentations at conferences and/or business meetings.
- Actively supporting a culture of innovation, learning, respect, and trust

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### Essential Qualifications

- PhD with 4+ years of industry experience in molecular and cellular biology, genomics, neuroscience, or related fields.
- Expert level experience in vector design, cloning, transfection, cell culture, and imaging.
- Direct experience with AAV-based gene therapy in preclinical research
- Hands-on experience with gene expression assays using high throughput library-based methods
- Proven experience in developing cell-based models using a variety of molecular, biochemical, immunological, and/or imaging-based endpoints
- Record of productivity and scientific excellence based on publications, patents, and/or external presentations.
- Independent and critical thinker, multi-tasker, and problem solver with strong verbal and written communication skills, and a team-first mindset.

### Desirable Requirements:

- Prior experience with single cell/single nuclei RNAseq is a plus
- Hands-on experience with Fluorescence Activated Cell Sorting (FACS) is desired

**Novartis Compensation and Benefit Summary:** *The salary for this position is expected to be:*

- Principal Scientist I \$103,600 and \$192,400
- Principal Scientist II \$114,100 and \$211,900

*The final salary offered is determined based on factors like, but not limited to, relevant skills and experience, and upon joining Novartis will be reviewed periodically. Novartis may change the published salary range based on company and market factors.*

*Your compensation will include a performance-based cash incentive and, depending on the level of the role, eligibility to be considered for annual equity awards.*

*US-based eligible employees will receive a comprehensive benefits package that includes health, life and disability benefits, a 401(k) with company contribution and match, and a variety of other benefits. In addition, employees are eligible for a generous time off package including vacation, personal days, holidays and other leaves.*

**Why Novartis:** Helping people with disease and their families takes more than innovative science. It takes a community of smart, passionate people like you. Collaborating, supporting and inspiring each other. Combining to achieve breakthroughs that change patients' lives. Ready to create a brighter future together? <https://www.novartis.com/about/strategy/people-and-culture>

**Join our Novartis Network:** Not the right Novartis role for you? Sign up to our talent community to stay connected and learn about suitable career opportunities as soon as they come up: <https://talentnetwork.novartis.com/network>

**Benefits and Rewards:** Read our handbook to learn about all the ways we'll help you thrive personally and

professionally: <https://www.novartis.com/careers/benefits-rewards>

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## **Accessibility & Reasonable Accommodations**

The Novartis Group of Companies are committed to working with and providing reasonable accommodation to individuals with disabilities. If, because of a medical condition or disability, you need a reasonable accommodation for any part of the application process, or to perform the essential functions of a position, please send an e-mail to [us.reasonableaccommodations@novartis.com](mailto:us.reasonableaccommodations@novartis.com) or call +1(877)395-2339 and let us know the nature of your request and your contact information. Please include the job requisition number in your message.

Division

Biomedical Research

Business Unit

Pharma Research

Location

USA

State

California

Site

San Diego

Company / Legal Entity

U175 (FCRS = US175) Novartis Institutes for BioMedical Research, Inc.

Functional Area

Research & Development

Job Type

Full time

Employment Type

Regular

Shift Work

No

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