



University of Colorado
Anschutz Medical Campus

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Department: Surgery

Job Title: Post-doctoral Fellow

Position #: 00839663

Requisition #: 37661

Job Summary:

The Derderian Lab in the Department of Surgery at the University of Colorado School of Medicine is seeking a highly motivated Postdoctoral Fellow to join our team at the forefront of fetal therapy research. Our lab tackles two transformative areas of investigation: (1) understanding placental biology and epigenetic regulation of trophoblast invasion, with a focus on extracellular vesicle-mediated microRNA signaling in fetal growth restriction, and (2) pioneering in utero gene editing approaches to correct genetic disease before birth. Current projects include the development of CRISPR-Cas9-based base editing platforms delivered by AAV vectors and lipid nanoparticles to treat Ornithine Transcarbamylase (OTC) deficiency in utero.

This is an exciting opportunity to contribute to a field on the cusp of major breakthroughs. The fetal environment is rapidly emerging as the next frontier for gene and small-molecule therapies, and fellows in our lab will gain hands-on experience in shaping this future. By bridging basic science discovery with translational application, this role offers the chance to work on high-impact projects with direct relevance to maternal-fetal medicine and pediatric surgery.

Key Responsibilities:

- Design and conduct independent research projects in placental biology or in utero gene editing.
- Develop and optimize CRISPR-Cas9 base editing strategies, including plasmid and sgRNA design.
- Perform molecular and cellular assays to investigate gene regulation, extracellular vesicle signaling, and therapeutic efficacy.
- Analyze and interpret data, prepare manuscripts for publication, and contribute to grant applications.
- Collaborate with a multidisciplinary team of surgeons, geneticists, and molecular biologists.
- Mentor graduate students, residents, and junior trainees in the lab.
- Present research findings at departmental seminars and national/international conferences.

Work Location:

Onsite – this role is expected to work onsite and is located at the Anschutz Medical Campus in Aurora, Colorado



Why Join Us:

The Department of Surgery at the University of Colorado is nationally recognized for innovation, collaboration, and commitment to advancing surgical science. As part of the Colorado Fetal Care Center and a thriving academic medical environment, our fellows have access to world-class core facilities, interdisciplinary collaborations, and strong mentorship for career development. This position offers an exceptional opportunity to build a research portfolio in translational science with clear relevance to maternal-fetal medicine and pediatric surgery.

Why work for the University?

The University of Colorado offers a comprehensive benefits package. To see what benefits are available for Post-Doctoral Fellows, please visit:

- [Payroll & Benefits Orientation for Post-Doctoral Fellows | University of Colorado \(cu.edu\)](#)
- [benefits guide cover-post-doc-2024 \(cu.edu\)](#)

Qualifications:

Minimum Qualifications:

- *Ph.D. in molecular biology, genetics, developmental biology, biomedical sciences, or a related field.*
- *Strong record of research productivity demonstrated by publications in peer-reviewed journals.*

Preferred Qualifications:

- *Prior postdoctoral training experience (1–4 years preferred).*
- *Expertise in CRISPR-Cas9 technology, including plasmid design and single guide RNA development.*
- *Background in placental biology, extracellular vesicle biology, or epigenetic regulation.*
- *Experience with viral vector or lipid nanoparticle development and delivery.*
- *Strong data analysis, communication, and scientific writing skills.*

Applicants must meet minimum qualifications at the time of hire.



Knowledge, Skills and Abilities:

- Deep understanding of molecular biology, gene regulation, and/or genome editing technologies.
- Proficiency with experimental design, data analysis, and interpretation of complex biological datasets.
- Ability to work independently while also contributing to a highly collaborative, multidisciplinary team.
- Strong written and verbal communication skills, with the ability to prepare scientific manuscripts, grants, and presentations.
- Creative problem-solving skills and the flexibility to adapt to evolving research directions in a rapidly changing field.
- Demonstrated ability to mentor and train junior researchers, graduate students, or medical trainees.
- Commitment to rigor, reproducibility, and ethical conduct of research.
- Enthusiasm for translational science and the potential to move discoveries from the lab toward clinical application.

How to Apply:

For full consideration, please submit the following document(s):

1. A letter of interest describing relevant job experiences as they relate to listed job qualifications and interest in the position
2. Curriculum vitae / Resume
3. Five professional references including name, address, phone number (mobile number if appropriate), and email address

Applications are accepted electronically ONLY at www.cu.edu/cu-careers.

Questions should be directed to: Chris Derderian, MD at christopher.derderian@childrenscolorado.org

**Screening of
Applications Begins:**

This position will remain open until filled. Applications will be reviewed as they are received, and candidates may be contacted for interviews throughout the posting period. Upon candidate selection, the posting will be closed, and no further applications will be accepted.



**Anticipated Pay
Range:**

The starting salary range (*or hiring range*) for this position has been established as
HIRING RANGE:
\$62,232 to \$70,344 (following NRSA salary scale)

The above salary range (*or hiring range*) represents the University's good faith and reasonable estimate of the range of possible compensation at the time of posting. This position is not eligible for overtime compensation unless it is non-exempt. Your total compensation goes beyond the number on your paycheck. The University of Colorado provides generous leave, health plans and retirement contributions that add to your bottom line.

Total Compensation Calculator: <http://www.cu.edu/node/153125>

**Equal
Employment
Opportunity
Statement:**

The University of Colorado (CU) is an Equal Opportunity Employer and complies with all applicable federal, state, and local laws governing nondiscrimination in employment. We are committed to creating a workplace where all individuals are treated with respect and dignity, and we encourage individuals from all backgrounds to apply, including protected veterans and individuals with disabilities.

ADA Statement:

The University will provide reasonable accommodations to applicants with disabilities throughout the employment application process. To request an accommodation pursuant to the Americans with Disabilities Act, please contact the Human Resources ADA Coordinator at hr.adacoordinator@ucdenver.edu.

**Background
Check Statement:**

The University of Colorado Anschutz Medical Campus is dedicated to ensuring a safe and secure environment for our faculty, staff, students and visitors. To assist in achieving that goal, we conduct background investigations for all prospective employees.

**Vaccination
Statement:**

CU Anschutz strongly encourages vaccination against the COVID-19 virus and other [vaccine preventable diseases](#). If you work, visit, or volunteer in healthcare facilities or clinics operated by our affiliated hospital or clinical partners or by CU Anschutz, you will be required to comply with the vaccination and medical surveillance policies of the facilities or clinics where you work, visit, or volunteer, respectively. In addition, if you work in certain research areas or perform certain safety sensitive job duties, you must enroll in the [occupational health medical surveillance program](#).