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Posted Feb. 22, 2024, set to expire Jun. 22, 2024

Job Title PhD Graduate Student **Department** Biomedical Engineering Institution University of Calgary

Calgary, Alberta

Date Posted Feb. 22, 2024

Open until filled **Application Deadline**

Position Start Date May 1, 2024 (can be negotiated)

Job Categories Graduate Student

Academic Field(s) **Engineering Physics**

Electrical and/or Electronics

Chemical/Petroleum

Bioengineering (all Bio-related fields)

Apply By Email

Job Description

The Sen research group works in a leading biomedical engineering research facility within the Schulich School of Engineering at the University of Calgary. This group is dedicated to pioneering advancements in the exciting and rapidly evolving field of extracellular vesicles. They are actively seeking a highly motivated, full-time Ph.D. student to join the group to work on the optimization of a novel microfluidic electrofiltration platform capable of separating charged biological nanoparticles—a groundbreaking technology developed in the Sen laboratory for isolating different populations of extracellular vesicles from biological fluids.

Qualifications:



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- B.Sc. and M.Sc. degrees in biomedical engineering, chemical engineering, or related discipline.
- Prior experience in designing and carrying out laboratory experiments.
- Strong background in characterizing and manipulating charged particles.
- Solid technical background in fluid mechanics.
- Prior experience in computational fluid dynamics and simulation using COMSOL Multiphysics (fluid flow and electromagnetics modules).
- Knowledge and technical experience in design and operation of microfluidic devices.
- Knowledge and technical experience in the application of electrical fields.
- Knowledge and prior experience in isolation and characterization of extracellular vesicles is an asset.
- Hands-on experience in mammalian cell culture and characterization is an asset.

Responsibilities will include:

- Conducting scientific research in a responsible and ethical manner.
- Maintaining detailed records of experimental procedures and results.
- Writing first-author scientific manuscripts for publication in reputable peer reviewed journals.
- Presenting research findings at scientific conferences.
- Actively managing collaborative work with other research groups.
- Contributing to the training of more junior laboratory members.
- Contributing to laboratory operations.
- Supporting efforts related to Equity, Diversity, Inclusion and Accessibility.



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How to Apply:

Interested candidates are encouraged to submit their application package to Dr. Sen at asen@ucalgary.ca. The application package should include the following:

- 1. A cover letter outlining the applicant's qualifications for the position.
- 2. An up-to-date CV.
- 3. The names and contact information of at least two references.

Application Deadline:

Review of applications will begin February 23, 2024, and applications will continue to be accepted until the position is filled. Please note that only short-listed applicants will be contacted for interviews. The anticipated start date for this position is May 1, 2024, but can be negotiated. Applicants with questions regarding this position should contact Dr. Sen, asen@ucalgary.ca.

About Biomedical Engineering at the University of Calgary

Biomedical Engineering at the University of Calgary embodies a strong culture of collaboration and cross-disciplinary research excellence, supported by significant research infrastructure across multiple campus centers. Biomedical Engineering is led by the Schulich School of Engineering, with the Cumming School of Medicine, and the faculties of Kinesiology, Nursing, Science, and Veterinary Medicine. Biomedical Engineering research strategy drives innovations that are saving lives and revolutionizing health care via collaborative research on wearable technologies (We-Trac CREATE), human mobility, health monitoring and management including e-health, advanced biomedical imaging, precision bio-diagnostics, regenerative medicine and novel medical technologies.

About the Schulich School of Engineering

The Schulich School of Engineering, founded in 1965, is home to six engineering departments, nearly 200 faculty members, over 4000 undergraduate students, and more than 2000 graduate students.



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Guided by its strategic plan (<u>Schulich Momentum</u>), the school continues to pursue its vision of recognition for enhancing its global research impact and driving innovation, for expanding access to and inclusivity in engineering, for contributions towards Truth and Reconciliation, and for enriching student success and experience.

About the University of Calgary

UCalgary is Canada's entrepreneurial university, located in Canada's most enterprising city. It is a top research university and one of the highest-ranked universities of its age. Founded in 1966, its 36,000 students experience an innovative learning environment, made rich by research, hands-on experiences and entrepreneurial thinking. It is <u>Canada's leader in the creation of start-ups</u>. <u>Start something</u> today at the University of Calgary. For more information, visit ucalgary.ca.

The University of Calgary has launched an institution-wide <u>Indigenous Strategy</u> committing to creating a rich, vibrant, and culturally competent campus that welcomes and supports Indigenous Peoples, encourages Indigenous community partnerships, is inclusive of Indigenous perspectives in all that we do.

As an equitable and inclusive employer, the University of Calgary recognizes that a diverse staff/faculty benefits and enriches the work, learning and research experiences of the entire campus and greater community. We are committed to removing barriers that have been historically encountered by some people in our society. We strive to recruit individuals who will further enhance our diversity and will support their academic and professional success while they are here. In particular, we encourage members of the designated groups (women, Indigenous peoples, persons with disabilities, members of visible/racialized minorities, and diverse sexual orientation and gender identities) to apply. To ensure a fair and equitable assessment, we offer accommodation at any stage during the recruitment process to applicants with disabilities. Questions regarding [diversity] EDI at UCalgary can be sent to the Office of Equity, Diversity and Inclusion (equity@ucalgary.ca) and requests for accommodations can be sent to Human Resources (hrhire@ucalgary.ca).

The University of Calgary is Canada's leading next-generation university – a living, growing and youthful institution that embraces change and opportunity with a can-do attitude. Located in the nation's most enterprising city, the university is making tremendous progress on its Eyes High journey to become one of Canada's top five research universities, grounded in innovative learning and teaching and fully integrated with the community it both serves and leads. Ranked as the top young university in Canada and North America, the University of Calgary inspires and supports discovery, creativity and innovation across all disciplines. For more information, visit ucalgary.ca.



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About Calgary, Alberta

Ranked the 5th most livable city in the world, Calgary is one of the world's cleanest cities and one of the best cities in Canada to raise a family. Calgary is a city of leaders - in business, community, philanthropy and volunteerism. Calgarians benefit from a growing number of world-class dining and cultural events and enjoy more days of sunshine per year than any other major Canadian city. Calgary is less than an hour's drive from the majestic Rocky Mountains and boasts the most extensive urban pathway and bikeway network in North America.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Dr. Arin Sen

Biomedical Engineering University of Calgary

2500 University Drive NW Calgary, AB T2N 1N4

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