**Research assistant position available in Vocadlo and King labs**

**Location:** Simon Fraser University, Burnaby Campus  
**Employment Group:** Research Assistant  
**Job Category:** Research/Technical – Non Union  
**Classification Title:** Research Asst.  
**Business Title:** Research Asst.  
**VP/Faculty:** Faculty of Science  
**Department:** Molecular Biology and Biochemistry  
**Salary Range:** $36,000.00 (min) - $43,000.00 (midpoint) - $50,000.00 (max)  
**PI’s:** Dr. Dustin King, Dr. David Vocadlo

**Full/Part Time:** Full-Time  
**Desired Start Date:** ASAP  
**Job End Date:** Sept. 15, 2023  
**Possibility of Extension:** Yes

**Funding Type:** Grant Funded  
**Closing Date:** Nov. 15, 2022  
**Available Openings:** 1

**Guiding principle:** "Midpoint" of the hiring salary range means the individual possesses full job knowledge, qualifications, and experience.

**Research Area:** Carbon dioxide is an essential biological gas that triggers adaptive physiological responses within diverse organisms. However, the basic biochemical mechanisms through which organisms’ sense and respond to CO₂ are largely unknown. One direct way that CO₂ can impact biological systems is through its ability to reversibly modify protein residues. Our ongoing research involves developing proteomic methods to discover functional CO₂ modification sites on proteins and then characterize the detailed biochemical basis.

**Job Summary:**  
We are looking for a highly motivated individual with a background in molecular biology and biochemistry to assist with research exploring the biochemical basis of CO₂ sensing in organisms. The ideal applicant should be skilled in protein purification, biochemical assay development, and ideally have experience in MS proteomics and/or microbiology. The selected candidate will join an interdisciplinary team with opportunities to be trained and use various equipment and techniques such as quantitative mass spectrometry, bacterial genetic engineering, and molecular microbiology. In addition, the candidate will also be involved in enzymology studies on sugar-processing enzymes. The candidate must be organized, hard-working, a good team member, and have excellent communication skills. This is a 12 months term position.
**Organizational Status:**
The candidate will work half time in Dr. Dustin King’s new Laboratory of Molecular Microbiology and half time in Dr. David Vocadlo’s Laboratory of Chemical Biology. In doing so, the candidate will work on collaborative projects between the two groups. The candidate will work as part of a team with members of the Vocadlo lab and with Dr. King and new members of his lab as his team grows. This will include working directly with other research associates, post-doctoral fellows, graduate students, and senior technicians. The applicant will be guided and trained by Dr. King and a senior team member in the Vocadlo lab and report to both Principle Investigator’s on a regular basis.

**Work Performed:**
The successful applicant will play an important role in setting up and performing lab manager activities within the King laboratory, which recently started at SFU in July 2022. This will include ordering, maintaining equipment, laboratory setup and organization, and training junior lab members. The successful applicant will be responsible for microbial cell culture, protein purification, biochemical assay design and development, immunoblot, microbial genetic engineering, mass spectrometry proteomics, gene cloning, enzymology, and cell-based assays. The position will also require advanced experimental design and the ability to critically analyze experimental results using standard statistical methods. Tasks will include participating in design of experiments; procuring and producing specialized reagents; performing data analysis; maintaining records; scheduling research within teams; maintaining equipment; overseeing work of junior technicians and students; and performing other related tasks.

**Supervision Received:**
This position will provide regular written and oral presentation to the Principal Investigator’s and will work with a team of research associates, postdoctoral fellows, research technicians, graduate, and undergraduate students.

**Supervision Given:**
Training of junior group members in experimental methods and data analysis.

**Consequence of Error/Judgement:**
The candidate should have good judgment regarding safe and efficient laboratory practices. Safety training will be offered and is required for duties. Any neglect will cause delay in progressing with ongoing research which will have a negative impact on publications and grant funding and career progression of team members.

**Qualifications:**
Basic Qualifications:
- At least an MSc degree in an area related to biochemistry and molecular biology.
- Minimum of 1-year related experience.
- Ability to manage and maintain equipment and lab inventories.
- Ability to plan and execute complex experiments.
Ability to coordinate and collaborate effectively with others.
Ability to interpret results and revise experimental design.
Ability to prepare complete, concise, and understandable technical reports.
Ability to understand and apply policies, procedures, and instructions.
Ability to resolve technical problems in an innovative manner.
Good initiative and ability to work independently with limited supervision.
Motivation to learn and desire to read primary scientific literature.
Ability to prioritize time to enable pursuing parallel projects.

Required Skills:
- Expertise with microbial cell culture.
- Expertise in cloning, protein expression, and purification.
- Expertise in biochemical assay design and development.
- Diverse organizational and management skills.

Desirable Skills:
- Expertise in microbial genome editing and saturating transposon mutagenesis.
- Expertise in proteomics.
- Expertise in quantitative mass spectrometry.
- Expertise in fluorescence microscopy.
- Expertise in structural biology (e.g. X-ray crystallography, NMR).

How to apply:
Applications will close on Oct 15th, 2022. To apply, please forward your cover letter and CV to:

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