



**Discovery**  
Labs @ DBMS

# Welcome to LISC596

Introduction to the QHS  
DISCO Labs

“

*If you take out the team in teamwork, it's  
just work. Now who wants that?*

*-Matthew Woodring Stover*

”



**Dr Susan Boehnke**



**Dr Nicolle Domnik**



**Dr Charlie Hindmarch**



**Dr Yat Tse**



**Jen Thiele**

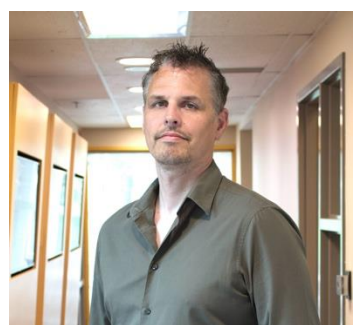


**Christie Gilmore**



**Ethan Heming**

# 2024-2025 Cohort




56  
students  
12 teams

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## Vision for LISC596

**“To provide experiential learning to trainees so that they have the competencies required to successfully contribute to team-science”.**

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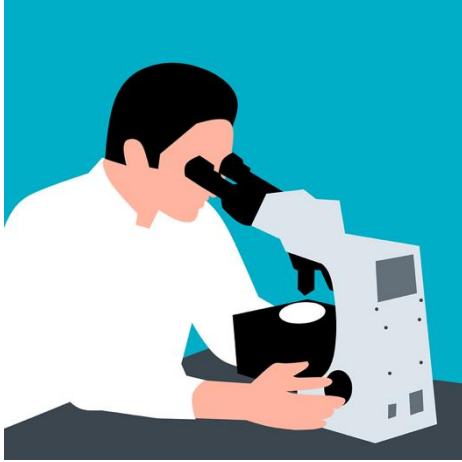


The Problem(s)



1.

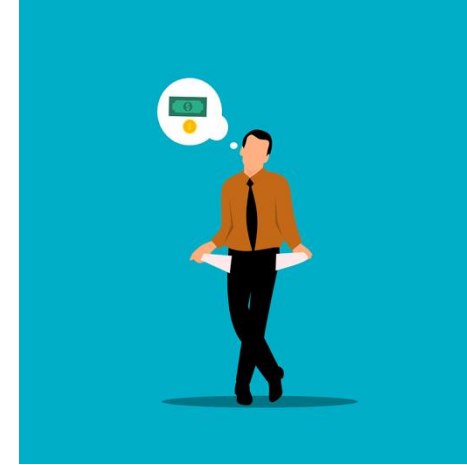
No one teaches  
Undergraduate students the  
things that Graduate  
supervisors need them to  
know



Research



Teaching



Research Funding



Vision and leadership



Mentorship and EDI



Team Work



2.

The importance of working within a multidisciplinary team is being overlooked in undergraduate education



<b>Sample Size</b>	101,580 research papers
<b>Mean</b>	7.2 authors
<b>Minimum</b>	1 author
<b>25th Percentile</b>	4 authors
<b>50th Percentile (Median)</b>	6 authors
<b>75th Percentile</b>	9 authors
<b>Maximum</b>	2,902 authors

In our sample of 101,580 research papers, the median research paper was written by 6 authors, and the majority had between 4 and 9 authors. Only 5% were written by single authors (n=5,280).



3.

Undergraduate student CVs are not compelling to employers, medical school, or graduate school



- **In addition to satisfying your degree requirements you will:**
  - Develop transferable skills
  - Develop discipline specific skills
  - Learn and develop soft skills
  - Grow and develop your CV
  - Gain a unique perspective on #TeamScience in 2024/5

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A.

## GROWTH AND DEVELOPMENT



TRAINING
Gantt chart and project planning
Constitution, and team dynamics
Lay audience presentation
Presentation skills
Ethics
Notice of Intent
Reading the literature
Goal setting
Health and safety
Biostatistics
AI to superpower research
Regulatory affairs
CV and careers workshop
Reflective teams

COURSES
TCPS Core 2
QU Health and Safety Awareness
WHMIS
Human Tissue, blood or bodily fluids
Ethics
Sex and gender in biological sciences (CIHR course x3)
Deliverables
Notice of Intent
Presentation to a lay audience
Proposal of Research
Budget Justification
Methods/SOP
Public Engagement
Literature Review

Deliverables
Notice of Intent
Presentation to a lay audience
Proposal of Research
Budget Justification
Methods/SOP
Public Engagement
Literature Review
Microcredentials (LINKEDIN)
Pipetting 101
SDS PAGE and Western Blotting
Nucleic Acids
More to come...



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B.

RESEARCH PROJECTS



**Human  
physiology**

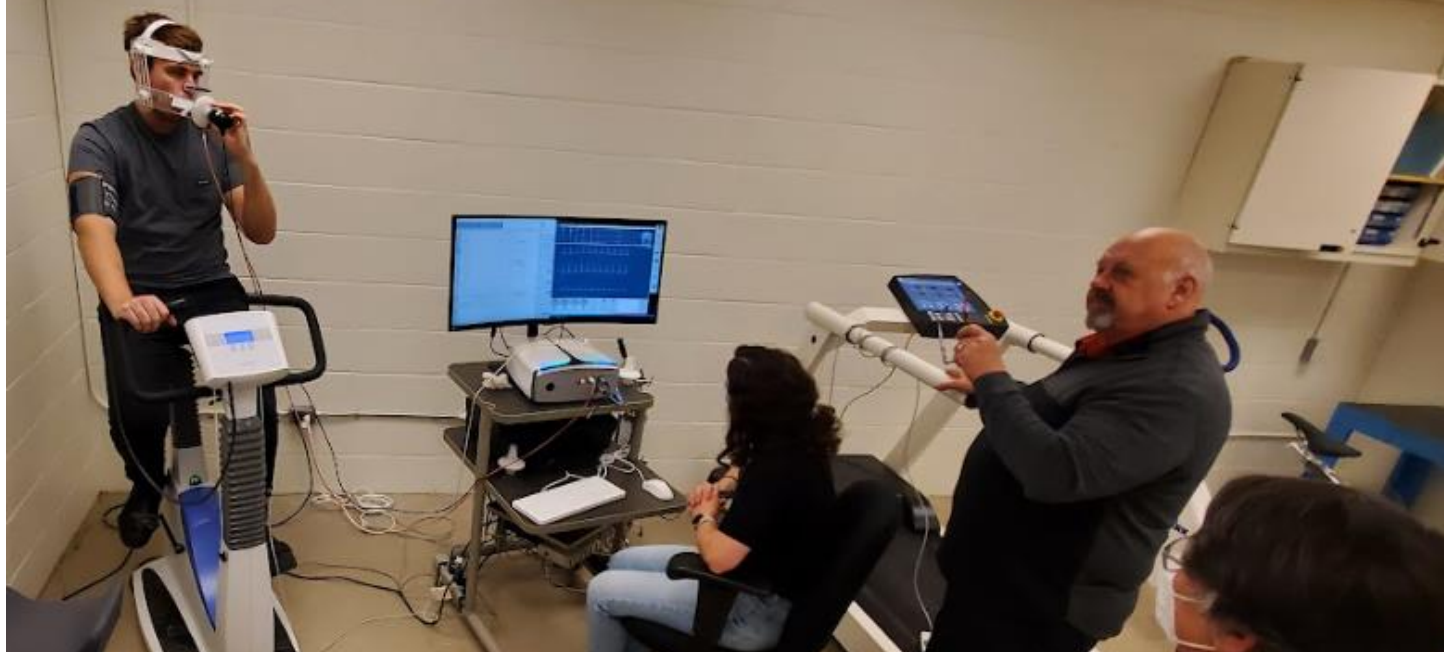
**Does Vaping Impact Cardiovascular and Sleep Parameters in Young Adults? A Prospective Feasibility Study**

**Molecular  
biology**

**Investigating diet-induced transcription differences in the ARC and PVN of mice with different mitochondrial DNA (mtDNA) backgrounds**

**Neurotech**

**Characterizing cortical responses during kinarm sensorimotor tasks using fNIRs in healthy young adults**



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C.

HOW DO YOU GET INVOLVED?





**Priority given to 4<sup>th</sup> Year students**

### **Prerequisites**

Minimum 3rd year (level 3) standing, a cumulative GPA of 3.2 or higher, registration in the BHSc, LISC, BIOL, CHEM or BCHM Program, and acceptance by a supervisor.

### **Exclusion**

Maximum 12.0 units from (ANAT 499/12.0; ANAT 599/6.0; BCHM 421/6.0; BCHM 422/6.0; BCHM 594/3.0; BCHM 595/6.0; BCHM 596/12.0; CANC 499/12.0; DISC 591/3.0; DISC 592/3.0; DISC 593/3.0; DISC 594/3.0; DISC 598/6.0; DISC 599/6.0; HSCI 591/3.0; HSCI 592/3.0; HSCI 593/3.0; HSCI 594/3.0; HSCI 595/3.0; HSCI 598/6.0; HSCI 599/6.0; LISC 499/12.0; LISC 594/3.0; LISC 595/6.0; LISC 596/6.0; MICR 499/12.0; NSCI 499/12.0; PATH 499/12.0; PHAR 499/12.0; PHGY 499/12.0; REPD 499/12.0).

(Note: BIOL and CHEM research students will also be excluded if they are already enrolled in more than 6.0 units of research courses).





Section 1 of 4

Student intake for DISC599

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This intake form is designed for undergraduate students who are interested in enrolling on DISC599 research program at Queen's University. The information collected here will be used to facilitate the formation of teams.

Please only input a valid Queen's University email address. Applications with non-QU addresses (e.g. Gmail) will be discarded.

Email \*

Valid email

This form is collecting emails. [Change settings](#)

First Name \*

Short answer text

Last Name (Family Name) \*

Short answer text

Student ID \*

Short answer text



**Discovery**  
Labs @ DBMS