

# VALERIE CATES

MSc Student  
Freelance Artist  
BHS c



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## EDUCATION

● University of Calgary  
2022 - Present

### Master of Science - Medical Sciences

- **Research Project:** "Development of a Patient Decision Aide in Adult Spinal Deformity: Can We Decrease Decisional Regret & Improve Patient Understanding Using Visual Aides?"
- Dr. Ganesh Swamy

● Mount Royal University  
2014 - 2021

### Bachelor of Health Sciences

- Minor in Women & Genders Studies

## WORK EXPERIENCE

● TELUS Spark Science Centre  
2022 - 2023

### Lead Science Guide

- Daily Operations and Science Communication

● University of Calgary  
2022

### Summer Studentship

- Adult Spinal Deformity Patient Decision Aid Development
- Dr. Ganesh Swamy

● Stressynomics Lab  
2021 - 2022

### Illustrations & Website Design

- stressynomicslab.ca
- Dr. Jaideep Bains

● Mount Royal University  
2020 - 2022

### Respiratory Physiology Research Assistant

- Dr. Trevor Day
- Guest student researcher at Dr. Philip Ainslie's lab - University of British Columbia Okanagan Campus, November 2021

● Havoc Hearts  
2020 - Present

### Illustrations & Product Photography

- havochearts.com

● Stray Books Publishing  
2018 - Present

### Lead Photographer & Freelance Illustrator

- straybooks.ca

## WORKSHOPS

- **Acrylics Workshop**  
B-Side Art Studio  
2023

- **Best of Banff: Science Communication**  
TELUS Spark  
2020

- **Tom Lynch Watercolour**  
Conception Bay, NL  
2018

## PUBLICATIONS

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- 2023
  - **Cates VC**, Marullo AL, Isakovich R, Bird JD, Keess JL, Ricord KC, Leslie KM, Janssens AA, Bhardwaj R, Day TA. **Comparison of Mild Physiological Effects of Surgical Masks and N95 Respirators over 60 Minutes at Rest.** J Appl Physiol. 2023 May 18. doi: 10.1152/jappphysiol.00487.2022. Epub ahead of print. PMID: 37199781.
- 2022
  - **Cates VC**, Bruce CD, Marullo AL, Isakovich R, Saran G, Leacy JK, O Halloran KD, Brutsaert TD, Sherpa MT, Day TA. **Steady-state chemoreflex drive captures ventilatory acclimatization during incremental ascent to high altitude: Effect of acetazolamide.** Physiol Rep. 2022 Dec;10(23):e15521. doi: 10.14814/phy2.15521. PMID: 36461658; PMCID: PMC9718940.
- 2021
  - Keough JRG, **Cates VC**, Tymko MM, Boulet LM, Jamieson AN, Foster GE, Day TA. **Regional differences in cerebrovascular reactivity in response to acute isocapnic hypoxia in healthy humans: Methodological considerations.** Respir Physiol Neurobiol. 2021 Dec;294:103770. doi: 10.1016/j.resp.2021.103770. Epub 2021 Jul 31. PMID: 34343693.
- 2021
  - Solloum T, **Cates V**, Marullo A, Javan M, Tymko M, Rickards C, Day T. . **Cerebral Blood Flow Pulsatility Index is Unchanged during Superimposed Lower-Body Negative Pressure in Head-Up Tilt in Anterior and Posterior Cerebral Circulations.** The FASEB Journal, 35(S1). 2021 May 14. doi: 10.1096/fasebj.2021.35.S1.04421.
- 2019
  - **Cates V**, Benke I, Cates M, Mitchel R, & Felizardo W. **Flowers: The Art of Rocky Mountain Cannabis.** Stray Books Limited. Calgary AB, 2019.

## PRESENTATIONS

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- 2022
  - **“Development of a Patient Decision Aid in Adult Spinal Deformity: How Art Can Improve Understanding”**
    - University of Calgary McCaig Seminar
- 2021
  - **“Biomedical Art; Why Science Benefits from Art”**
    - University of British Columbia Okanagan
- 2021
  - **“Steady-State Chemoreflex Drive Captures Ventilatory Acclimatization During Incremental Ascent to High Altitude While on Acetazolamide”**
    - International Society of Arterial Chemoreception (ISAC) Conference [online]
- 2021
  - **“Regional Blood Flow Responses During Acute Hypoxia in Healthy Humans: How do we Report Responses?”**
    - Cerebral Autoregulation Research Network (Car-Net) Seminar Series [online]

## CERTIFICATIONS

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- **Narrative-Based Medicine**  
University of Toronto  
2023
- **TCPS 2: CORE**  
Mount Royal University  
2020