

# VALERIE CATES

M S c   S t u d e n t  
F r e e l a n c e   A r t i s t  
B H S c



✉ info@valeriecates.ca

🌐 valeriecates.ca

📷 @catescreates

## EDUCATION

- University of Calgary  
2022 - Present
- Mount Royal University  
2014 - 2021

### 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

### Bachelor of Health Sciences

- Minor in Women & Genders Studies

## WORK EXPERIENCE

- TELUS Spark Science Centre  
2022 - 2023
- University of Calgary  
2022
- Stressnomyics Lab  
2021 - 2022
- Mount Royal University  
2020 - 2022
- Havoc Hearts  
2020 - Present
- Stray Books Publishing  
2018 - Present

### Lead Science Guide

- Daily Operations and Science Communication

### Summer Studentship

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

### Illustrations & Website Design

- stressnomyicslab.ca
- Dr. Jaideep Bains

### Respiratory Physiology Research Assistant

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

### Illustrations & Product Photography

- havochearts.com

### 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/japplphysiol.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