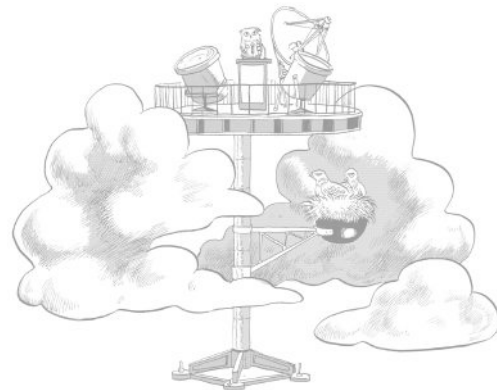
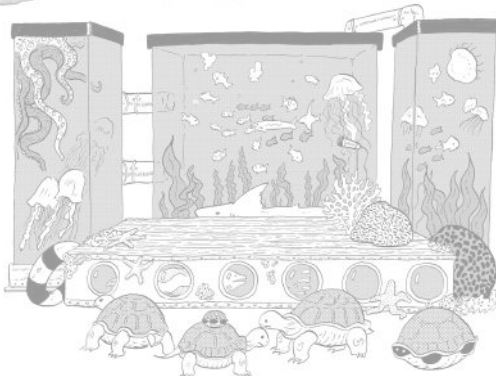
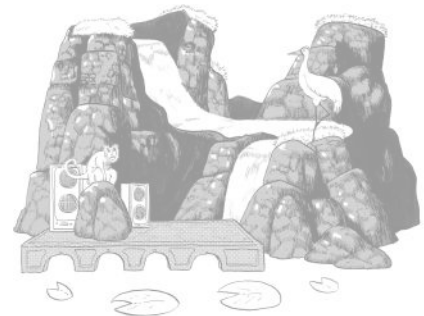


undergraduate poster showcase

March 16, 2021, 6-8 PM EST

Program



Art by Tristan Sito
M.Arch. Student, McGill University



Program

The Office of Science Education welcomes you to our annual celebration of undergraduate student work.

The event will proceed as follows:

6:00 PM – Opening Remarks

6:15 PM – Round 1

7:00 PM – Intermission

7:10 PM – Round 2

7:55 PM – Closing Remarks

During each round, students will concurrently present their work. You are invited to peruse the list of student presentations in this program, so that you may make your "stage" (i.e. breakout room) selection and choose the presentations you will view.

1



Round 1 6:15-7:00 PM

Room Temperature Phosphorescence in Pure Organic Materials

Allen Tao, Chemistry

Musculoskeletal Injuries: Influences of Perceived Injustice on Recovery Outcomes

Ana Nightingale Castillo, Psychology

Response of White-Tail Deer to Recreational Visits at Gault Nature Reserve

Kari Hollett, Biology

E-Learning Design for Higher Skill Acquisition in the Biomedical Sciences

Mégane Pépin, Physiology

Round 2 7:10-7:55 PM

Learning to Learn with SciLearn: Results and Experiences from Inaugural Semester

Christian Hellum Bye, Mathematics and Physics

Describing Cell Mechanics with the Dynamic Crosslinking Model

Ora T. Cohen, Bioengineering

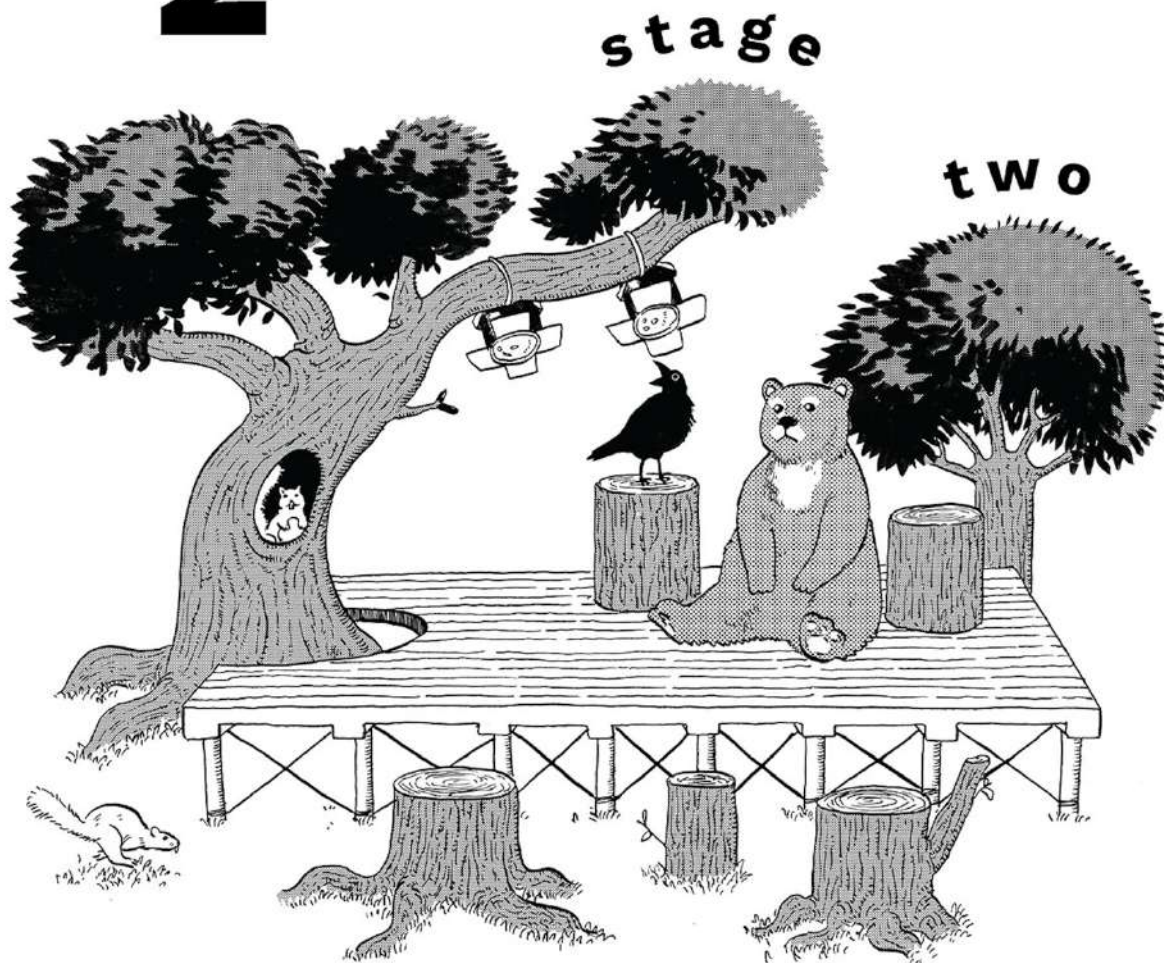
Re-examining the *S. cerevisiae* genome based on TGIRT-seq Transcriptomic Profiles

Sungeun (Kristina) Song, Computer Science and Biology

Ectopic Pregnancies

Shaz Kassimali, Anatomy and Cell Biology

2



Round 1

6:15-7:00 PM

How Different Evolutionary Histories Affect Colour and Behavioural Traits in Male Guppies
Anya Mueller, Biology

AntNupTracker: Citizen Science for Recording Ant Nuptial Flight Information
Benjamin Rudski, Computer Science and Biology

Esophageal Atresia from the Ground Up: Retrospective Analysis of Disease Severity Stratification at a Single Institution
Melody Zhou, Cognitive Science

Anger and Its Related Personality Traits
Sarah Gostlin, Psychology

Round 2

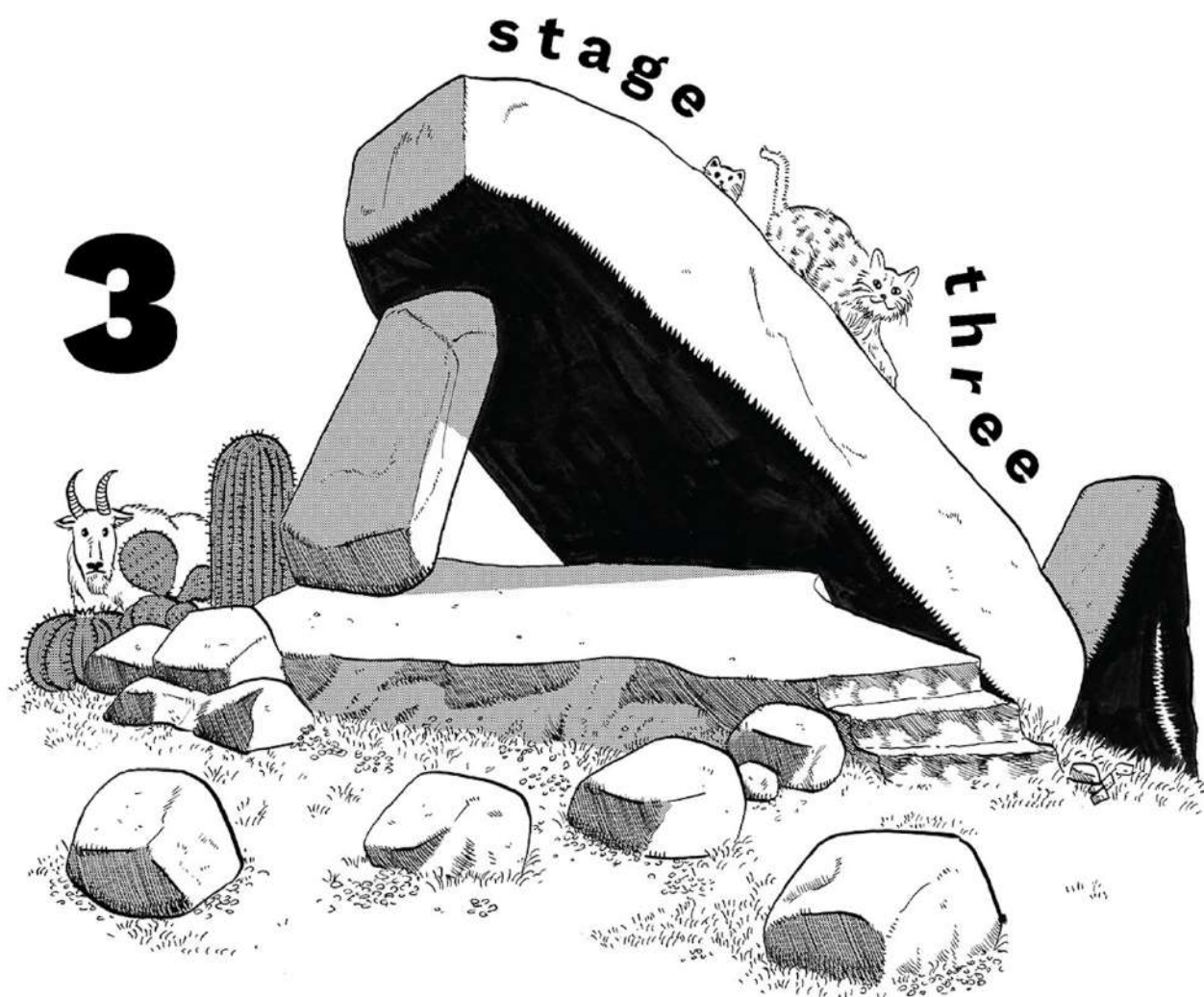
7:10-7:55 PM

A Background on & the Biological Control of *Lymantria dispar dispar*: Canada's Disastrous Invader
April Kowalchuk-Reid, Biology

Exploring Amygdala-Cortical Crosstalk during Motivational Conflict
Armaan Fallahi, Neuroscience

The Role of Socio-Hydrologic Frameworks in Arctic Groundwater Management
Emilienne Hamel, Sustainability, Science, and Society

FRezCa: Role of Collaborative Learning Communities in Higher Education
Iris Guo, Anatomy and Cell Biology



Round 1 **6:15-7:00 PM**

Investigating Predictors of Area-Level Implicit Transgender Attitudes
Eliane Roy, Psychology

Gaussian Laser Implementation in Chroma for Environmental Test Stand
Minya Bai, Physics

Active Learning and Engagement in an Online Math Class in Fall 2020
Sarah Alevy, Biochemistry

Virtual FRezCa: Taking a Student Learning Community Online
Whitley Deleveaux, Anatomy and Cell Biology

Round 2 **7:10-7:55 PM**

Using Bioinformatics to Investigate Relationships between Larval Size and mRNA Expression in Ant Worker Subcastes
Anthony Ha, Anatomy and Cell Biology

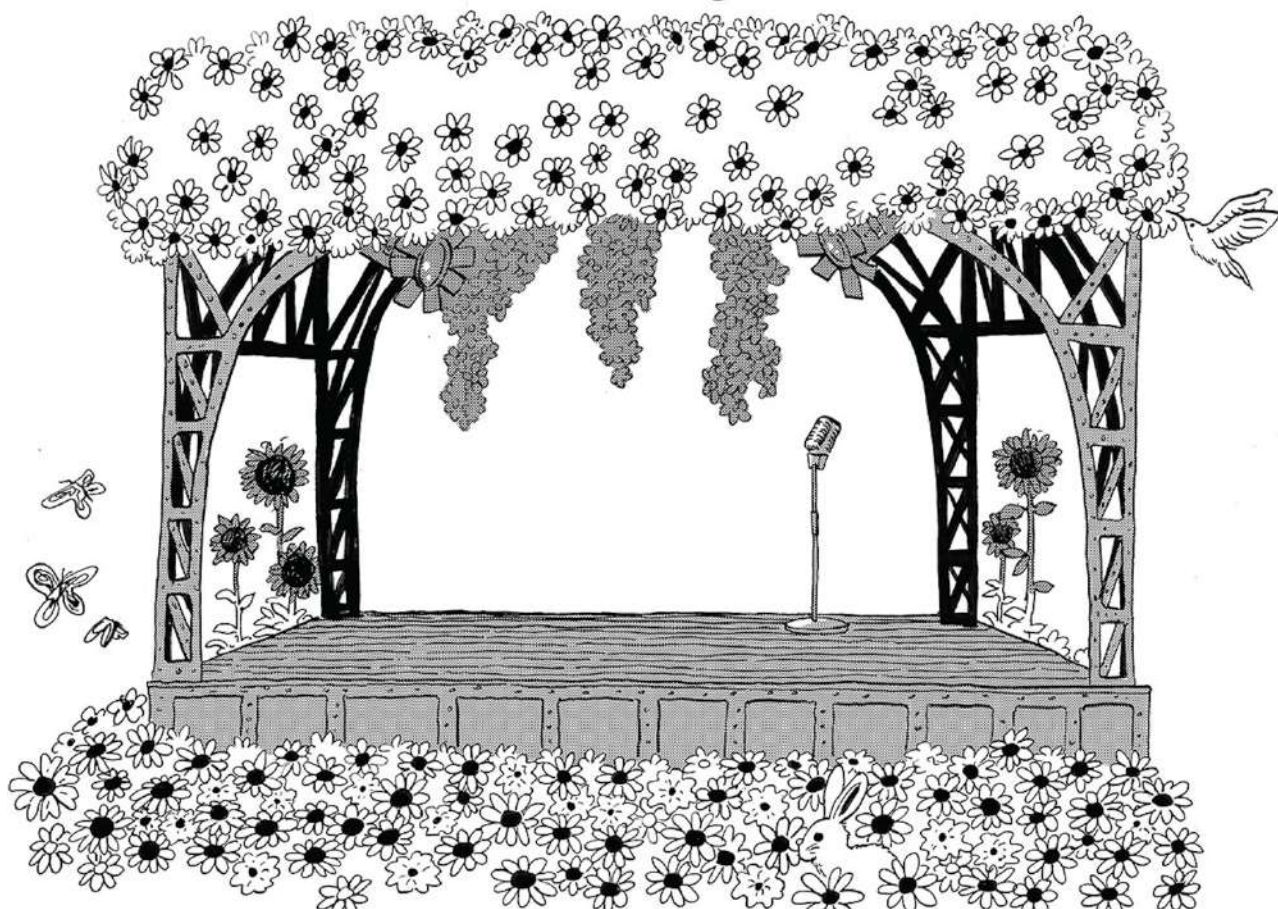
The Significance of Nursing Self-Care Practices on Resilience and Quality of Care During COVID-19 Pandemic: A Review of Current Initiatives in Critical Care Settings
Ariana Pagnotta, Nursing

Comparison of Next Generation Sequencing Methods on Repetitive Regions of the *Trypanosoma brucei* genome
Clémence Cuillerot, Microbiology and Immunology

Bubbles in Volcanic Rocks
Émilie Saucier, Geology

4

stage four



Round 1

6:15-7:00 PM

Neural Response to Errors and the COVID-19 Pandemic: An Examination of Error-Related Negativity and Stress Exposure on the Development of Anxiety Symptoms

Chloe L. White, Psychology

An Ethnography at a Distance: Privileging the Well-Being of Girls in the Context of Gender-Based Violence in Rural South Africa during the Time of COVID-19

Darshan Daryanani, Political Science

Impacts of Fiddler Crab Burrowing on Salt Marsh Vegetation in Waquoit Bay, Massachusetts

Emily Brown, Biology

Investigating the Effectiveness of Various Feedback Methods

Mira Looch, Microbiology and Immunology

Round 2

7:10-7:55 PM

Cloning of Tubulin Modifying Enzymes

Eddy Taguedong, Anatomy and Cell Biology

Development of an Online Adaptive Visuomotor Learning Platform

George Lungoci, Neuroscience

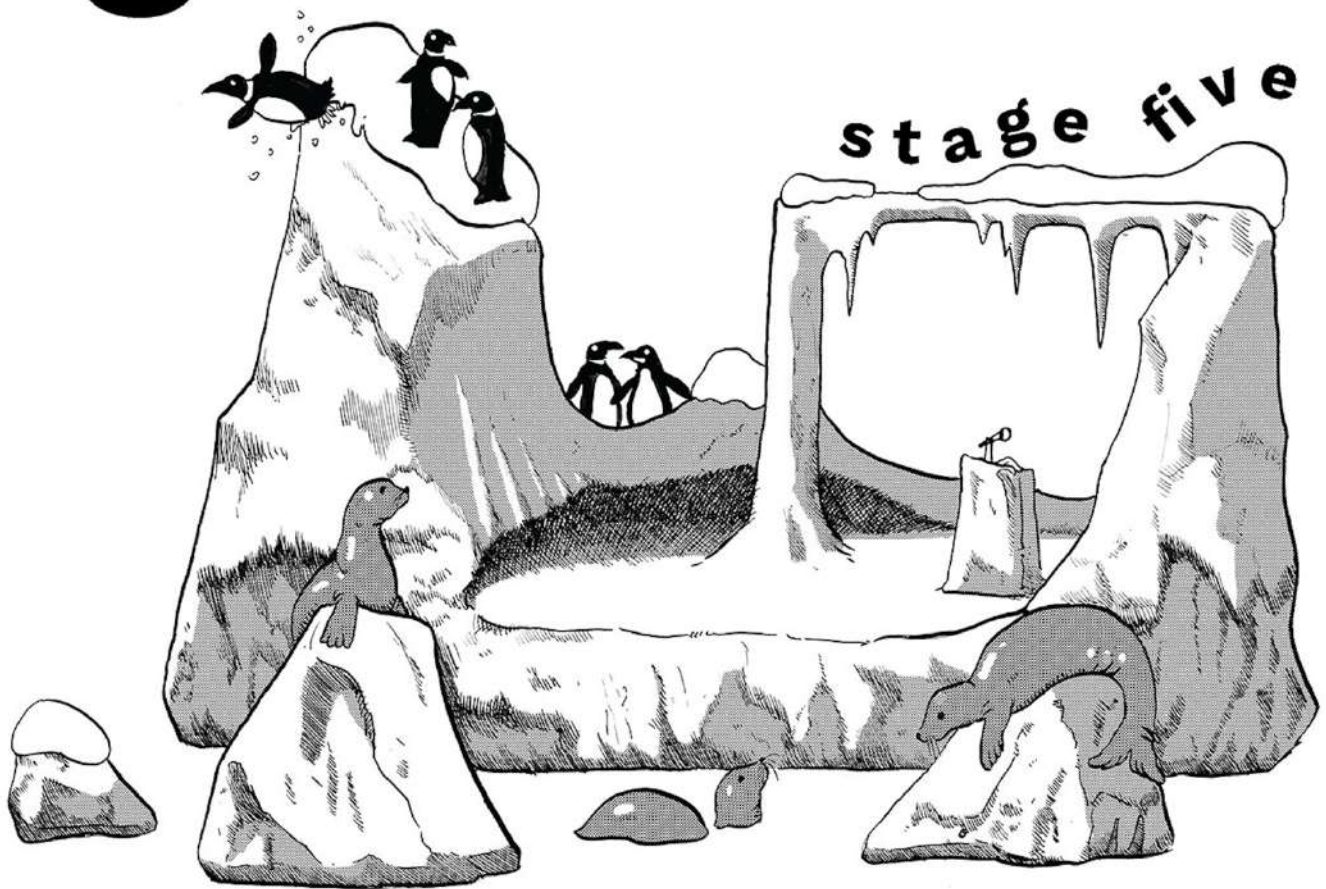
Numerical Integration Schemes for Hamiltonian Ordinary Differential Equations

Stephen Fay, Math and Physics

Association between Community-Level Socio-Economic Status and Blood Pressure among Inuit in Greenland

Yiwei Bian, Environment

5



Round 1

6:15-7:00 PM

Language Performance in a Richly Characterised Set of Codeswitching Bilinguals: A Study from Puerto Rico

Dorothy Yip, Psychology

Phosphorus Sorption in Restored and Natural Wetlands

Freya Lambrecht, Sustainability, Science, and Society

Optimizing Course Resources in BIOL 202

Paary Balakumar, Anatomy and Cell Biology

Using Machine Learning to Classify Compact Binary Coalescences

Thomas Abbott, Math and Physics

Round 2

7:10-7:55 PM

Exploring the Cellular and Molecular Bone Marrow Milieu

Amrita Gosaine, Anatomy and Cell Biology

A Review of Current Therapeutical Treatments for Spinal Muscular Atrophy

Romane Monnet, Biochemistry

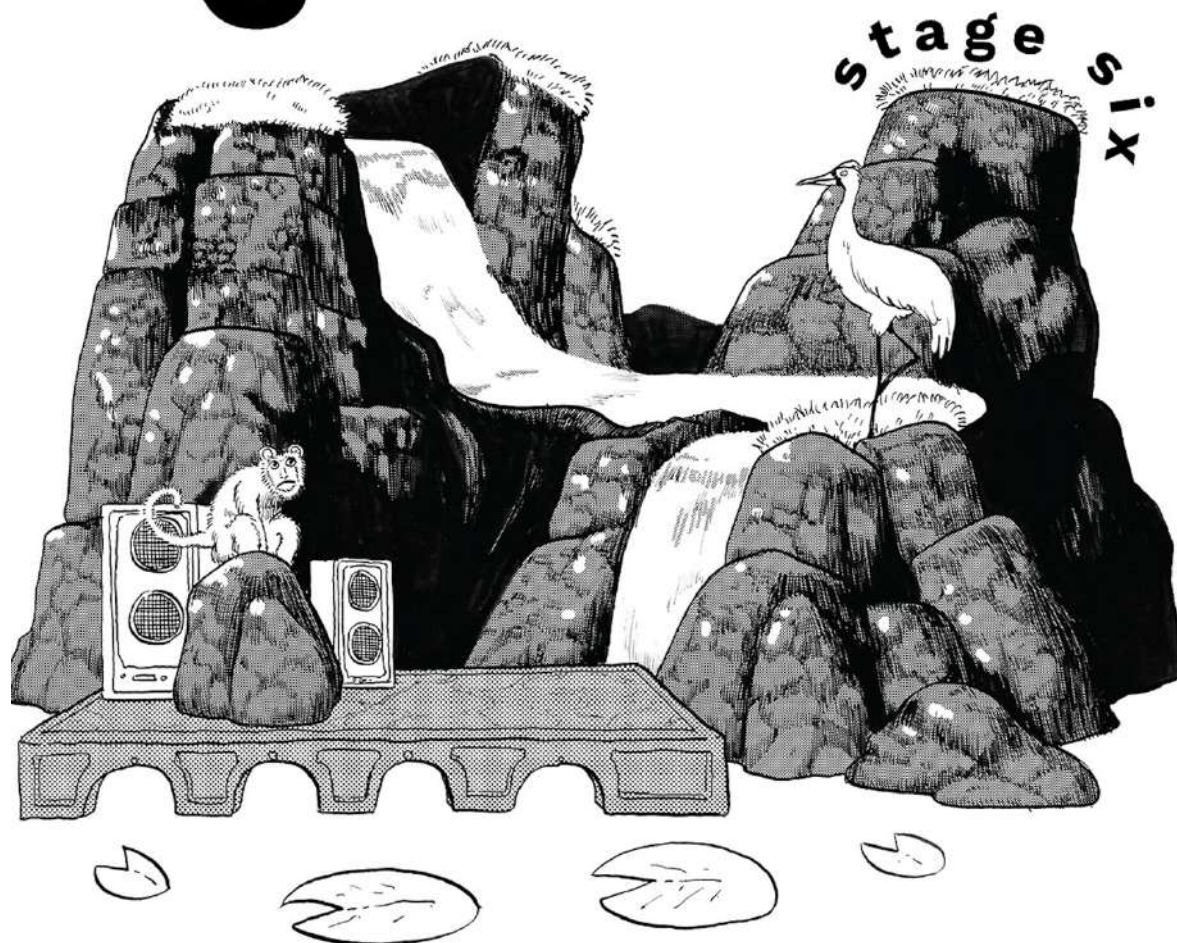
NeurAudio: A Portable Tool for Tinnitus Diagnosis and Characterization

Veronica Tarka, Neuroscience

Design and Evaluation of Small Interfering RNAs for the Treatment of Severe Acute Respiratory Syndrome-Coronavirus-2

William Zhang, Microbiology and Immunology

6



Round 1

6:15-7:00 PM

Elucidating the Brain Dynamics of Anticipation on Perceptual Decision Making

Antonia Panaitescu, Neuroscience

Context Matters in Human Risky Decision-Making: A Reinforcement Learning Approach to Investigate the Framing Effect

Doug Dong, Psychology

Students Teaching Students: Building a Learning Community at McGill

Rohan Bhutkar, Interdepartmental Honours Immunology

A Collection of Zoological Paintings Reveals the Influence of the Slave Trade on the History of Biology

Vida Javidi, Biology

Round 2

7:10-7:55 PM

Spatial Immunological Characterization of Hepatocellular Carcinoma

Flemming Kondrup, Anatomy and Cell Biology

Transplantation for Spinal Cord Injury: Which Cells are Best?

Laura Meng, Medicine

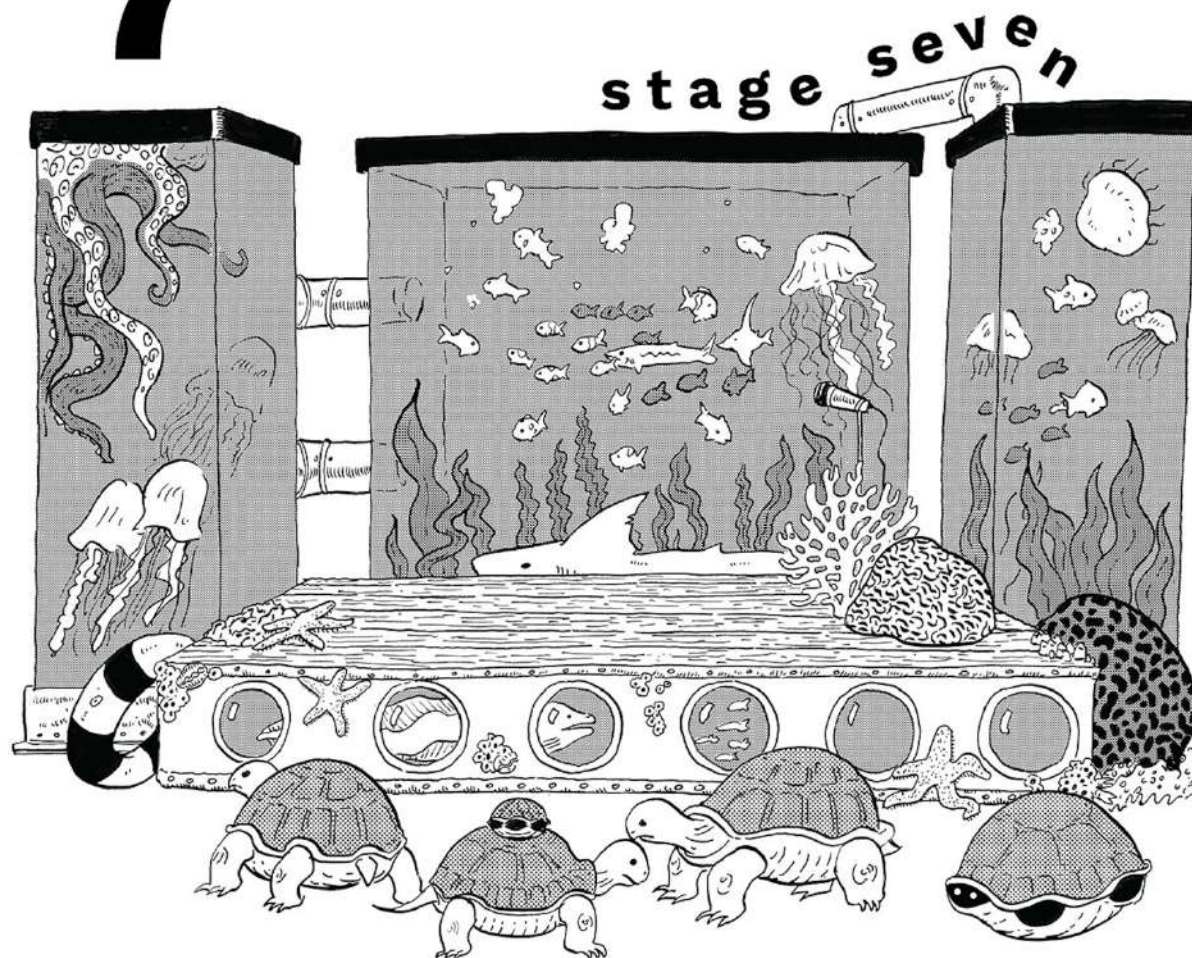
Investigating the Impact of Cell Size on the Spindle Assembly Checkpoint

Robert Kidd, Microbiology and Immunology

The Role of ZIC2 in Embryonic Stemcells

Summer Zhang, Pharmacology

7



Round 1 6:15-7:00 PM

Green is Already Seen: A Replication of Griskevicius et al. (2010)

Ariane Fréchette, Psychology; Ezelbahar Metin,
Psychology and Sociology; Karine Talbot, Psychology;
Laurianne Buron, Psychology

Verbal Fluency and Interactional Context in Spanish-English Bilinguals

Chloë Maas, Psychology

The Magic Square Game – Quantum Nonlocality and Its Limits

Noah Brüstle, Mathematics and Computer Science

Lengthy, Lonely and Listless: The “L’s” Connected to Remote Learning in PHYS 101

Ryan Hanula, Microbiology and Immunology

Round 2 7:10-7:55 PM

Challenging Ependymal Barrier Integrity

Brianna Lu, Interdepartmental Honours
Immunology

Evaluating the Efficacy of Artificial Intelligence Ethics Frameworks: A Case Study

Vivian Qiang, Cognitive Science

Coaxial Electrospinning of Poly-Caprolactone Scaffold for Esophageal Regeneration

Hanwen Wang, Interdepartmental Honours
Immunology; Helen He, Physiology; Stephanie Xie,
Physiology; Steve Niu, Anatomy and Cell Biology

Exploring the Role of MED13 on Mediator-CKM Interactions

Yi Fei Tao, Biochemistry

8



Round 1

6:15-7:00 PM

Inquiry-Based Learning Process in Orientation Programs: A Retention Strategy for Newly Graduated Nurses in Critical Care Settings

Alexandra Claveria, Alyanna Jamal, Bouchra Smail, and Grace Chang, Nursing

The Quantum Anomalous Hall Phase in Strained Graphene

Griffin Schwartz, Physics

Understanding the Intricate Mussel Byssus Mechanisms

Guido Merino, Chemistry

Examining the Personal and Ecological Language Dynamics of Montréal Bilinguals' Language Attitudes with Social Network Analysis

Ruo Ying Feng, Psychology

Round 2

7:10-7:55 PM

Modelling the Effect of Quarantine and Distancing Conditions on Pathogen Transmission in Duckweed Communities

Isabel Fernandez-Mc Auley, Environment; Julia Kossakowski, Environment

The Impacts of Climate Change on Groundwater – Surface Water Dynamics in the Yukon

Lana Vuleta, Earth Systems Science

Glimpse at Infinite Sets

Matthew Hobson-Garcia, Computer Science

3D Ultrastructure of Astrocytes and Categorization of Postsynaptic Densities in a Mouse Model of Alzheimer's Disease

Yasmina Richa, Anatomy and Cell Biology

Presenter Index

This index is an alphabetical list of presenters by first name, including those who are not able to attend. We invite you to view all posters in our virtual gallery: <https://www.mcgill.ca/ose/ups>.

Presenter Name	Stage	Presenter Name	Stage	Presenter Name	Stage
Alexandra Claveria	N/A	Emilienne Hamel	2	Ora T. Cohen	1
Allen Tao	1	Emily Brown	4	Paary Balakumar	5
Alyanna Jamal	8	Emma Somer	N/A	Robert Kidd	6
Amrita Gosaine	5	Ezelbahar Metin	7	Rohan Bhutkar	6
Ana Nightingale Castillo	1	Flemming Kondrup	6	Romane Monnet	5
Anthony Ha	3	Freya Lambrecht	5	Ruo Ying Feng	8
Antonia Panaitescu	6	George Lungoci	4	Ryan Hanula	7
Anya Mueller	2	Grace Chang	8	Sarah Alevy	3
April Kowalchuk-Reid	2	Griffin Schwartz	8	Sarah Gostlin	2
Ariana Pagnotta	3	Guido Merino	8	Shaz Kassimali	1
Ariane Fréchette	7	Hanwen Wang	7	Stephanie Xie	7
Armaan Fallahi	2	Helen He	7	Stephen Fay	4
Benjamin Rudski	2	Iris Guo	2	Steve Niu	7
Bouchra Smail	8	Isabel Fernandez-Mc Auley	8	Summer Zhang	6
Brianna Lu	7	Julia Kossakowski	8	Sungeun (Kristina) Song	1
Chloe L. White	4	Kari Hollett	1	Thomas Abbott	5
Chloë Maas	7	Karine Talbot	7	Tomer Jordi Chaffer	N/A
Christian Hellum Bye	1	Lana Vuleta	8	Veronica Tarka	5
Clémence Cuillerot	3	Laura Meng	6	Vida Javidi	6
Darshan Daryanani	4	Laurianne Buron	7	Vivian Qiang	7
Dorothy Yip	5	Matthew Hobson-Garcia	8	Whittley Deleveaux	3
Doug Dong	6	Mégane Pépin	1	William Zhang	5
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Eliane Roy	3	Minya Bai	3	Yi Fei Tao	7
Elise Desbarats	N/A	Mira Loock	4	Yiwei Bian	4
Émilie Saucier	3	Noah Brüstle	7		

Thank you to our partners:

