

VOLUME 5 • APRIL 2021

# Department of Biological Sciences Newsletter

FROM BIOMOLECULES TO THE BIOSPHERE

## IMPORTANT DATES

**GOOD FRIDAY**

APRIL 2

**EASTER MONDAY**

APRIL 5

**END OF CLASSES**

APRIL 15

**START OF EXAMS**

APRIL 19

**END OF TERM**

APRIL 30

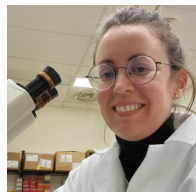
## CONGRATULATIONS TO:



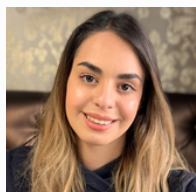
**Nayantara Govindrajan**, of the Shemanko lab, who won the first place poster award in the 5th annual Biological Sciences Symposium!



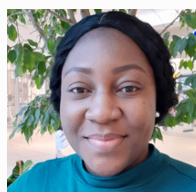
**Danielle Clarke**, of the Rogers lab, who won the second place poster award in the 5th annual Biological Sciences Symposium!



**Isbel Lopetegui-Gonzalez**, of the Shemanko lab, who tied for the third place poster award in the 5th annual Biological Sciences Symposium!



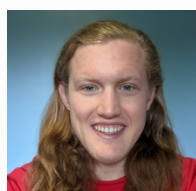
**Sadaf Sangari**, of the Hansen lab, who tied for the third place poster award in the 5th annual Biological Sciences Symposium!



**Rita Eresia-Eke**, of the Gieg lab, who received first place in the 3 minute thesis competition 5th annual Biological Sciences Symposium!

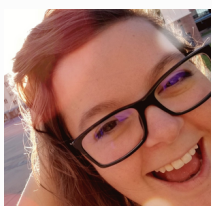


**Camila dos Santos Meira**, of the Gedamu lab, who received second place in the 3 minute thesis competition 5th annual Biological Sciences Symposium!



**Connor Hodgins**, of the Ro lab, who received honourable mention in the 3 minute thesis competition 5th annual Biological Sciences Symposium!

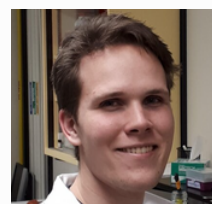
## CONGRATULATIONS CONTINUED:



**Amber Whitebone**, of the Anderson lab, who successfully defended her MSc Thesis titled "A Multi-Method Analysis of Differential Enthesis Microstructure: Implications for Paleontological Soft Tissue Reconstructions" on March 1, 2021!



**Andrew Thompson**, of the Vijayan lab, who successfully defended his PhD Thesis titled "Developmental and endocrine impacts of early-life exposures to venlafaxine in fish" on March 4, 2021!



**Spencer Wildman**, of the Lewis lab, who won the third place talk award in the 5th annual Biological Sciences Symposium!



**Colton Unger**, of the Rolian lab, who won the EDI award for his work in building a more inclusive world for the disabled community!



**Damitha Gunathilake**, of the Hynes lab, for her first author publications in the Canadian Journal of Microbiology titled "*A bacteriophage infecting Mesorhizobium species has a prolate capsid and shows similarities to a family of Caulobacter crescentus phages*" and in the journal Microbial Resource Announcements titled "*Genome sequences of vB\_RleM\_RL38Jl and vB\_RleM\_RL2RES, two virulent Rhizobium leguminosarum transducing phages*"!



**Nandun (Dulmini) Wathugala**, of the Hynes lab, for her first author publication in the journal Microbiology titled "*Defining the requirements for the conjugative transfer of Rhizobium leguminosarum plasmid pRleVF39b.*"!

**Haydee Mesa-Galloso** and **Williams E. Miranda**, of the Noskov lab, for their publication in the journal Nature Communications titled "*Lipid regulation of hERG1 channel function*"!

*If you or someone in your lab have something to celebrate, including successful defences and awards, please contact [biogsa@ucalgary.ca](mailto:biogsa@ucalgary.ca) to have your accomplishment included in the next newsletter!*



# GRADUATE STUDENT AFFAIRS

## ***Ph.D. Candidacy Oral Examination - Candidacy Exams are Closed Exams.***

**Emily Baumgartner** (Supervisor: S. Vamosi) will be holding their PhD Candidacy Examination on April 9, 2021.

## ***Thesis Oral Examinations - Exams are "Open" unless otherwise noted.***

**Devon Earl** (Supervisors: M. Reid & A.L. Norman) will be holding his MSc Thesis Examination titled "*Impacts of sulfur dioxide emissions on lodgepole pine growth in Alberta, Canada*" on April 19th, 2021 at 10am. (Exit Seminar at 9am).

**Dan Zhang** (Supervisor: D. Hansen) will be holding his MSc Thesis Examination titled "*The Role of the RNA-Induced Silencing Complex (RISC) Component VIG-1 in Caenorhabditis elegans Germline Stem Cell Regulation*" on April 22, 2021 at 10am. (Exit Seminar at 9 am)

**Emily Purvis** (Supervisor: Dr. Paul Galpern) will be holding her MSc Thesis Examination titled "*Restoration for wild bee community recovery in the Prairie Pothole Region*" on April 29 at 10 am. (Exit Seminar at 9am).



## BIOSCI IN THE NEWS

### ***Stories summarized from UToday Features***

#### ***UCalgary microbiologists develop platform for rapid infection diagnostics***

Dr. Ian Lewis, PhD, Faculty of Science

Dr. Thomas Ryzdack, PhD, Faculty of Science

There's a new diagnostic tool on the scene, and it's set to make a huge change in patient health outcomes. Hopper, a metabolomics-based platform that can identify both bacteria and their antibiotic sensitivity 30 hours faster than current diagnostic technologies, is *hopping* to become the primary diagnostic platform in labs across North America and Europe. Designed by the Lewis lab's Rapid Infection Diagnostics division, they're estimating this diagnosis could save up to 50,000 lives a year. Hopper works by incubating bacteria for four hours and utilizing changes in metabolite concentration to identify bacteria, rather than the typical bacterial culture approach. By incubating the bacteria in the presence of antibiotics, susceptibility can also be determined by metabolite levels! This will also go a long way towards reducing antibiotic resistance by avoiding the prescription of ineffective treatments. Great job Lewis lab!



# SEMINARS

**ICB601 Seminar - Friday 3:00pm** Meeting ID: 957 5461 2969 Passcode: 5n575h  
April 9 - **Sadaf Sangari** - Understanding the Role of Receptor for Activated C Kinase 1 (RACK-1) in *Caenorhabditis elegans*' Germ Line Stem Cells

**ECOL601 Seminar - Monday 12:00pm** Meeting ID: 518 1943 338  
April 12 - **Michael Wendlandt** - Stable isotope tracers of water sources sustaining newly formed boreal wetlands.

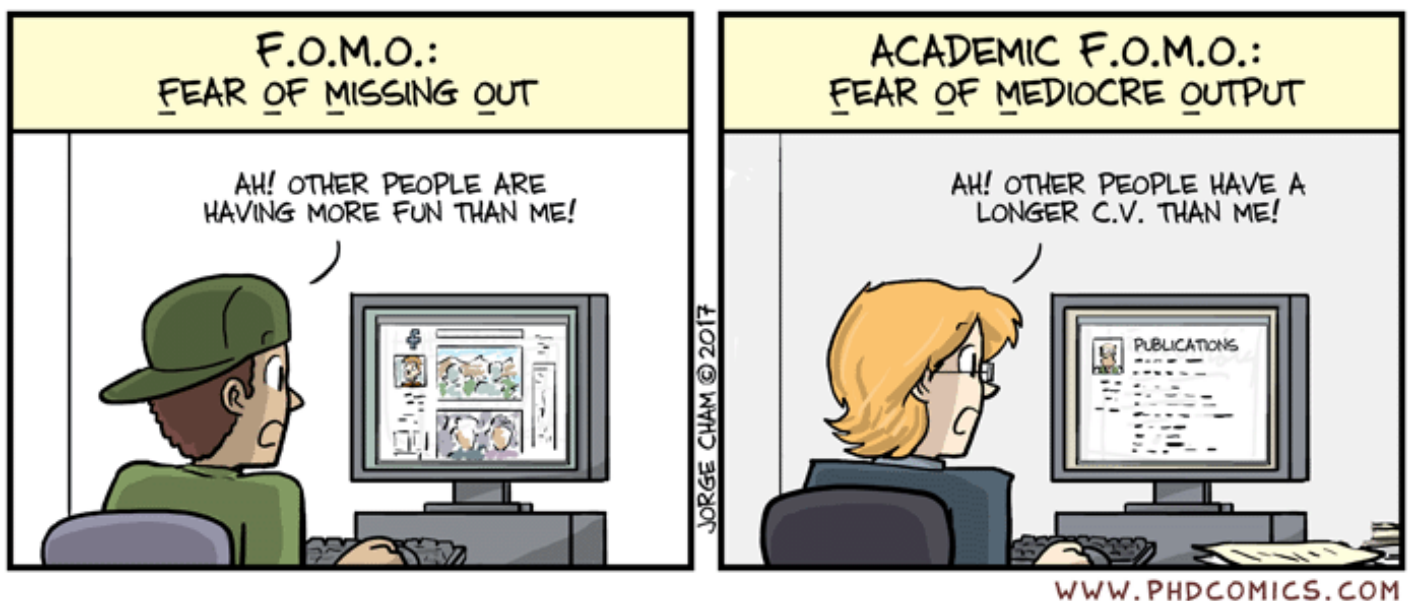
**ECOL601 Seminar - Monday 12:00pm** Meeting ID: 518 1943 338  
April 12 - **Ashlee Mombourquette** - Effects of Age and Salinity on Community Composition and Productivity in Newly Formed Boreal Wetlands

**BCEM601 Seminar - Monday 4:00pm** Meeting ID: 966 0864 7151 Passcode: BCEM601  
April 12 - **Nic Van Babel** - TBA

**BIOL601 Seminar - Wednesday 12:00pm** Meeting ID: 950 3831 8705 Passcode: 601-is-fun  
April 14 - **Tyson Bookout** - Development of Transcription Factor-Based Biosensors for Naphthenic Acid Detection.

**ICB601 Seminar - Friday 3:00pm** Meeting ID: 957 5461 2969 Passcode: 5n575h  
April 16 - **Adam Fox** - Engineering the RNA-binding protein, APUM23, to target endogenous mRNAs in *Arabidopsis thaliana*.

**BCEM601 Seminar - Monday 4:00pm** Meeting ID: 966 0864 7151 Passcode: BCEM601  
April 19 - **Jordan Mattice** - Investigating the Signaling Role of Shewanella-like Phosphatase 2 in *Arabidopsis thaliana*.



# *DID YOU KNOW?*

You have access to a free and confidential online mental health program called Silvercloud through the GSA?

GO TO  
[HTTPS://SHOPPERS.SILVERCLOUDHEALTH.COM/SI  
GNUP/SHOPPERS/](https://shoppers.silvercloudhealth.com/signup/shoppers/)

USE THE ACCESS CODE: UCALGARYGSA

SilverCloud™ is a digital mental health platform that works on your time. Access SilverCloud™ any time, on your computer, tablet or smartphone, and work through the modules at your own pace.

**Get Started:**  
[silvercloud.morewaystobenefit.ca](https://silvercloud.morewaystobenefit.ca)

## 4 great reasons to use SilverCloud™

### It works on your time.

Complete the SilverCloud™ platform at your own pace (recommended use is 40 minutes per week over 6–8 weeks).

### It's proven.

50–75% of people who have applied CBT found it effective in overcoming a variety of mental health challenges.

### It's 100% secure and confidential.

Completely secure and your privacy is ensured – none of the information you provide to SilverCloud™ will be shared with your program.

### It's easy and engaging.

Complete the 6–9 engaging and motivational modules at your own pace, with the support of a coach.

**You can feel better. SilverCloud™ can help.**



**SilverCloud**  
Digital Mental Health Platform



**Easy and engaging.**



**Supported by a  
behavioural health coach.**



**Convenient.**



**Confidential.**

**Sign me up!**  
**Access Code: UCalgary GSA**