CONGRATULATIONS TO:

Williams Miranda, of the Noskov lab, who won the Student Research Achievement Award for his poster titled "Molecular mechanism of HERG1 channel regulation by ceramides" at the 65th Biophysical Society meeting!

Chantel Biegler, of the Dunfield lab, who passed her Ph.D. Candidacy Exam on February 18, 2021!

Ferdous Nawar, of the Wrona lab, who received a Faculty of Science Graduate Excellence Award!

Damon Brown, of the Turner lab, for his first author publication in the journal Applied Environmental Microbiology titled, "Lessons and considerations for the creation of universal primers - targeting non-conserved, horizontally mobile genes"!

Colton Unger, of the Rolian lab, who won the 1st place talk award for his talk at the GSA Peer Beyond Graduate Research Conference titled, "Skull Evolution in Mice Bred for Longer Limbs"!

Kayla Dias, of the Ro lab, who won the 2nd place talk award for her talk at the GSA Peer Beyond Graduate Research Conference titled, "The Unsolved Mystery of Natural Rubber Biosynthesis"!
CONGRATULATIONS CONTINUED:

Ana Carolina Lima, of the Wrona lab, for her newly accepted paper in the journal Ecological Informatics, "SDesti: An R package for the analysis of aquatic benthos environmental studies' data"! Ana was also recently accepted into the WISE Planet Fellowship program!

Meriem Gaci, of the Hynes lab, for her first author publication in the journal Plant and Soil titled "Phylogenetic diversity of indigenous Rhizobium trapped from the natural habitat of Pisum sativum L. in eastern and central Algeria"!

Neil Hickerson and alumnus Matija Stanic, of the Samuel lab, for their publication in the journal Plant Biotechnology titled "Gene-editing of the strigolactone receptor BnD14 confers promising shoot architectural changes in Brassica napus (canola)"

Augusta Schmidt, of the Hynes lab, for her recent publication in the journal Microorganisms titled "Molecular biology in the improvement of biological nitrogen fixation by rhizobia and extending the scope to cereals"! Augusta and her husband Rodrigo are delighted to announce the birth of their son Igor Schmidt Reis just before midnight on February 4th. Igor and his parents are doing well!

Dr. Ali Pormohammad and alumnus Nadia Monych, of the Turner lab, for their publication in the journal International Journal of Molecular Medicine titled "Zinc and SARS-CoV-2: A molecular modeling study of Zn interactions with RNA-dependent RNA-polymerase and 3C-like proteinase enzymes"

Joseph Utomo and alumnus Sean Baek, of the Ro lab, for their publication in the journal Metabolic Engineering titled "The yeast platform engineered for synthetic gRNA-landing pads enables multiple gene integrations by a single gRNA/Cas9 system"

If you or someone in your lab have something to celebrate, including successful defences and awards, please contact biogsa@ucalgary.ca to have your accomplishment included in the next newsletter!
ECOL601 Seminar - Monday 12:00pm  Meeting ID: 518 1943 338
March 1 - Jamey Creighton - Morphological analysis of a nectridean lepospondyl, Diceratosaurus, from Linton, Ohio.

BCEM601 Seminar - Monday 4:00pm  Meeting ID: 966 0864 7151  Passcode: BCEM601
March 1 - Azin Baharain - Combating brain edema by drug repurposing.

BIOL601 Seminar - Wednesday 12:00pm  Meeting ID: 950 3831 8705 Passcode: 601-is-fun
March 3 - Ciara Goldsmith - The Effect of a Biocide on Bacteria and Archaea to Mitigate Microbiologically Influenced Corrosion.

ICB601 Seminar - Friday 3:00pm  Meeting ID: 957 5461 2969  Passcode: 5n575h
March 5 - Sara Far - Understanding storage protein accumulation in oilseed crops.

ECOL601 Seminar - Monday 12:00pm  Meeting ID: 518 1943 338
March 8 - Ferdous Nawar - Implication of surface cover properties on the productivity and composition of microbes in the seasonally ice-covered lakes.

BCEM601 Seminar - Monday 4:00pm  Meeting ID: 966 0864 7151  Passcode: BCEM601
March 8 - Moiz Kapasi - TBA

BIOL601 Seminar - Wednesday 12:00pm  Meeting ID: 950 3831 8705 Passcode: 601-is-fun
March 10 - Triet Tran - Metabolic prediction and phylogenetic reconstruction of a deep-branching uncultured thermophile S2R-29 from Dewar Creek hot spring using SAGs.

ICB601 Seminar - Friday 3:00pm  Meeting ID: 957 5461 2969  Passcode: 5n575h
March 12 - Justin Nichol - TBA

ECOL601 Seminar - Monday 12:00pm  Meeting ID: 518 1943 338
March 15 - Tegan Heusinkveld - Diagnosing the Fossil Rhizodontids of Blue Beach, Nova Scotia, Canada, and Their Implication for Tetrapodomorph Phylogeny.

BCEM601 Seminar - Monday 4:00pm  Meeting ID: 966 0864 7151  Passcode: BCEM601
March 15 - Sierra Mitchell - Characterizing the interaction of protein phosphatases RLPH2 and PP1 with the D group MPKs from Arabidopsis thaliana.

BIOL601 Seminar - Wednesday 12:00pm  Meeting ID: 950 3831 8705 Passcode: 601-is-fun
March 17 - Affan Siddique - The role of Extracellular vesicles in Giardia-microbiota interactions

ICB601 Seminar - Friday 3:00pm  Meeting ID: 957 5461 2969  Passcode: 5n575h
Thesis Oral Examinations - Exams are “Open” unless otherwise noted.

Amber Whitebone (Supervisor: Dr. Jason Anderson) will be holding her MSc Thesis Examination titled "A Multi-Method Analysis of Differential Enthesis Microstructure: Implications for Paleontological Soft Tissue Reconstructions" on March 1 at 2 pm. (Exit Seminar at 1 pm).

Andrew Thompson (Supervisor: Dr. M. Vijayan) will be holding his PhD Thesis Examination titled "Developmental and endocrine impacts of early-life exposures to venlafaxine in fish" on March 4, 2021 at 11 am. (Exit Seminar at 10 am).

Emilie Toews (Supervisor: Dr. M. Musiani) will be holding her MSc Thesis Examination titled "Echinococcus multilocularis infections in domestic dogs" on March 22, 2021 at 11 am. (Exit Seminar at 10 am).
Stories summarized from UToday Features

UCalgary scientists produce new canola type for potentially higher crop yield

Dr. Marcus Samuel, PhD, Faculty of Science  
Matija Stanic, Faculty of Science  
Neil Hickerson, Faculty of Science  
Dr. Rex Arunraj, PhD, SRM Institute of Technology

A team of researchers in the Department of Biological Sciences has successfully used CRISPR for the first time in Canola - to impressive results. In order to improve crop yield, the team set out to engineer shorter, more branched plants, which are less susceptible to heavy snow, strong wind and hail. Shorter crops allow more plants to grow in the same space, and their resistance to harsh weather prevents bending at the stem, which in turn improves yield. In order to improve branching, the Samuel lab built on previous research showing that shorter, branched plants have less sensitivity to a hormone called strigolactone. Therefore they targeted the endogenous BnD14 gene, the receptor for strigolactone. Targeting BnD14 increased the number of branches from 20 to 60 and increased flower production by 200% within the same reproductive lifespan of canola grown in Canada. Importantly, the team then was able to remove the foreign DNA required to perform CRISPR, creating improved non-GMO crops. This kind of targeted gene editing is an excellent strategy that improves on traditional methods of obtaining better crops. Rather than selecting the best plants and breeding them over several generations like farmers have always done, researchers can identify genes that are responsible for desired traits and make the change within one generation. The Samuel lab is currently in discussions with Agriculture and Agri-Food Canada to move into field trials and confirm that these sturdier plants provide higher yield. The lab is also looking to expand into other crops such as chickpeas!
5th Biological Sciences Graduate Symposium
March 25-26, 2021

Keynote speaker
Nobel Laureate
Dr. Martin Chalfie

InclusiveSTEM
Dr. Lisa Willis

Register to present a talk or poster and/or 3MT
EXTENDED DEADLINE: MARCH 5TH

- Win door prizes and presentation prizes!
- Learn about the implementation of GFP as a molecular tool from the pioneer Dr. Martin Chalfie!
- Learn how inclusiveness makes us stronger scientists and how to write an effective EDI statement from Dr. Lisa Willis!
- Share your work with your community!