

# FACULTY OF SCIENCE NEWSLETTER

Monthly newsletter sharing extraordinary work within the Faculty of Science

*"Impossible" is not a scientific term. Vanna Bonta*

The Animal Health Department is very excited to announce program revisions have been approved and the Veterinary Technology Open Learning Diploma Program launched in January with two cohorts. The onsite Animal Health to Veterinary Technology update will enroll its first cohort of students in September 2021.

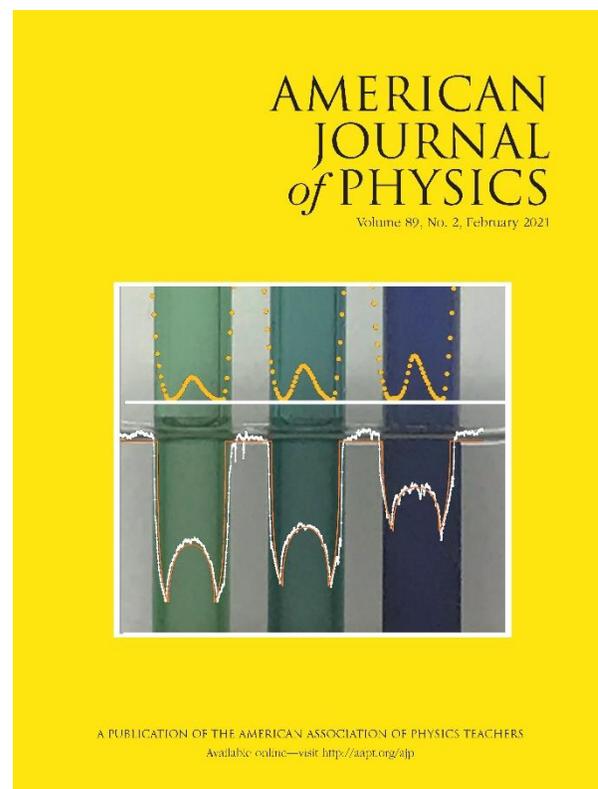
Animal Health faculty not only stayed afloat and survived making their program virtual - while still instructing and doing onsite animal care - they thrived, facilitating face-to-face instruction and mental wellness. After completing 2 weeks of isolation for students, face-to-face labs began this semester.



Mark Paetkau, along with two physics major alumni, Vincent Daley (2020) and Owen Paetkau (2017), have a paper

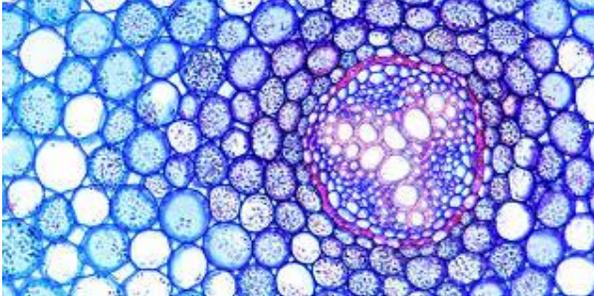
published in the February 2021 issue of the American Journal of Physics: Index matching computerized tomography,

The research work this paper presents was carried out as PHYS 4480 projects over several years. What is additionally exciting is that one of the figures from the paper graces the cover of the February edition.



## Faculty Highlights from the Department of Biological Sciences

The hard work, dedication and time faculty invested last semester will continue to serve them well this semester as they continue with virtual delivery and modified face-to-face instruction.



Dr. Lyn Baldwin developed a series of asynchronous activities that students could complete independently (a combination of traditional field journal activities, species observations using online, crowd-sourced species identification apps such as iNaturalist, and mapping activities using online mapping applications).

Dr. Louis Gosselin converted the labs for Biology into a format that would allow them to be done virtually. He chose not to take the potentially easier route of using packaged labs available online, since it would have reduced the close integration of labs with lectures that those who teach this course have worked so hard to achieve—and would have increased student costs.

Christine Petersen made lab and field-based videos, with help from Don Ferguson and Jamie Lee Ushko. In addition, as coordinator of the lab course, she created 2 versions of each lab: a 100% virtual version and a modified face-to-face version, for 2 lab sections. She

also created a slide review site to allow students to practice identifying slides.

As the coordinator for BIO 1110, Stephen Joly moved the labs for the biggest course in the department into virtual delivery mode revising the lab manual for the course, as well as the assignments and quizzes.

Dr. Mark Rakobowchuk redesigned the labs in BIO 3540 so they could be offered virtually, then performed (and filmed and edited) demonstrations of various physiological processes that would normally be undertaken by students in the lab. He also redesigned the assessments for labs to enable completion by individual students.

Dr. Natasha Ramroop Singh taught BIO 4150, a lab-intensive course. Normally, the labs require the use of equipment located in multiple labs, that students come in on multiple days over the week to collect data and more than the stipulated time for a lab session to complete experiments. To meet COVID safety demands, Natasha eliminated all 3 requirements.

Natasha was awarded the TRU Open Education Resource (OER) Development Grant to support her BIO 2340 Introduction to Genetics course. This is an exciting opportunity for both Natasha and her department. We look forward to reviewing her proposed modifications to the OER and the additional chapter on “Genes and COVID-19 Susceptibility in Humans”. Reducing textbook cost is a significant contribution to the students, helping them reduce their financial burden.

---