The better late than never newsletter...

Recent publications in the school


This publication is Jack’s second for the Commission and completes 18 months of work by the authors, who include SBS alumnus Dr Dorien Coray, and was reviewed by eight different intergovernmental panels and finally the intergovernmental CGRFA meeting running in Rome.


This is Chris' first publication and at first author. The paper is based on the first chapter of his MSc thesis. Chris graduated in 2018 with First Class Honours. His senior supervisor was Professor Angus McIntosh.


**In the spotlight**

**Taking biology to new heights!**

On Sunday 3 February, an historic rocket blasted off from the Waikato countryside, firing up through the clouds to an altitude of 31,000 ft and carrying with it the first biological experiments launched from a university rocket (and perhaps any rocket, though this is still being confirmed...) on New Zealand soil (video of launch available here: [https://photos.app.goo.gl/DQhGSa16wjKMavsH9](https://photos.app.goo.gl/DQhGSa16wjKMavsH9)).

The rocket, *Into the Blue*, was designed and built by the UC Aerospace Club team including Matthew Furkert, Jack Davies, Robbie Grove, and Thomas Bell. Boasting cutting edge technology in the form of an active air braking system and real-time data transmission, *Into the Blue* will be entered in the Australasian Universities Rocket Competition to be held in Queensland 17-21st April.

![Dr Sarah Kessans, holding the payload before launch](image.png)
For the first time, held in its payload bay was a chassis (skillfully, rapidly, and very gratefully fabricated by Ben McGinlay when the original plan for fabrication went awry!) containing two biological experiments featuring both plant and microbial cultures. The aim of this payload was to test the feasibility of biological/biochemical experiments on domestic rocket launches. For the inaugural launch, two experiments were trialled, including cell cultures (in solid nutrient media) of *Pinus radiata*, in collaboration with A/Prof David Leung. As we progress from these initial feasibility studies, culturing *Pinus radiata* cells in low Earth orbit will give us an understanding of timber cell physiology in microgravity, leading to the future production of building materials on the moon and Mars.

Additionally, in a newly-minted collaboration with brewers Damien Treacher and Mark Waller at The Laboratory in Lincoln (many thanks to Dr Sarah Sapsford and Dr Lauren Waller (post-docs with Prof Ian Dickie) for facilitating this connection!), *Saccharomyces cerevisiae* was flown as part of the payload to determine the effects of rocket flight on the microbial production of valuable secondary metabolites during the fermentation process. We anticipate the results of the latter experiment to be available for analysis by fellow collaborators at the conclusion of the April rocket flight. In all seriousness, the initial launch was a great success, with many lessons learned which will help us to optimise biological payloads on subsequent rocket launches.

The experiments were well received by both rocket enthusiasts and members of the public alike (the National Launch Day attracted hundreds of spectators, several of whom were students now interested in pursuing space biology!) and we look forward to integrating additional experiments into the next launch, currently scheduled for the 3rd March. Many thanks to everyone who has helped out thus far and if you are keen to get involved, please get in touch with Sarah Kessans.

UC Aerospace team of (L to R) Robbie Grove, Jack Davies, Matthew Furkert, and Thomas Bell with *Into the Blue* post-launch
Student awards

Jennifer Schori, PhD candidate with Associate Professor Tammy Steeves was the recipient of two awards at Entomological Society of New Zealand conference the week of the 4th February. The two awards were:

- Shared winner of the KJ Fox Travel Award
- Runner-up prize for best student talk

Her talk was titled "The life cycle of robust grasshoppers revealed through captive rearing".

PhD oral exams completed

Solomon Wante, had his oral exam on the 12th February. In attendance were Associate Professor David Leung (Senior Supervisor), Ashley Garrill (Oral Convenor) and Associate Professor David Burritt (Oral Examiner, University of Otago)
Katie Collins, had her oral exam on the 1st February. In attendance were her Senior Supervisor, Professor Jon Harding, Professor Elissa Cameron (Oral Convenor) and Dr Fleur Matheson from NIWA in Hamilton (external examiner). Katie’s thesis title is ‘Testing and developing tools for macrophyte management in Canterbury agricultural waterways’.

Welcome to the world

Alibe Wasa, PhD candidate in Molecular & Cellular Biology with Professor Jack Heinemann, is a proud father. His wife gave birth to a beautiful boy on the 19th January. Welcome to the world little one.

Scholarships

Birds New Zealand – David Medway Scholarship

Applications close: 30 March

Students studying full-time at post graduate level on a topic relating to ornithology. Applicants must demonstrate that they have a minimum of four years of experience with ornithology in New Zealand, and must be current members of Birds New Zealand at the time of submission of an application.

Full details
**Birds New Zealand – Marj Davis Scholarship**

**Applications close: 31 March**

One Marj Davis Scholarship may be awarded annually and shall have a maximum value of $1,500 (One Thousand Five Hundred Dollars) only. The scholarship is intended to provide financial support to a student who is studying full time for a Masters or PhD degree and is conducting research in ornithology. To be eligible, applicants must either be studying at Canterbury or Lincoln Universities or studying at another New Zealand tertiary institution having previously lived in Canterbury/West Coast for a minimum of three years.

[Full details](#)

**Postgraduate news**

**Academic Skills Centre workshops for Honours and coursework Masters students**

The Academic Skills Centre offers a range of workshops to assist students as they embark on study in the new academic year. Further information can be found on [https://www.canterbury.ac.nz/support/asc/](https://www.canterbury.ac.nz/support/asc/)

[List of workshops](#)

**What movie is that?**

I hope that it doesn't sound selfish of me, but the last months of his life were the best months of mine.

439: "You just hold your head high and keep those fists down. No matter what anybody says to you, don't you let 'em get your goat. Try fightin' with your head for a change."

Answer: To kill a mockingbird (162). Atticus Finch (Gregory Peck) advises his daughter Scout (Mary Badham), these sensible words.

Guessed by: Matthew Turnbull

**Classified**

**Personal tutoring for undergraduate Biology students**

I have studied subjects like cell and molecular biology, biochemistry, bio statistics, genetics and I also have specialization in marine biology and have worked with Cawthron Research Institute on marine algae.

Contact: [Pallav Kaur](mailto:)
[View CV](#)

**Tutor wanted**

Tutor wanted in Biology and Chemistry, ideally Biochemistry.

For 19 year old student who has just commenced studying Pre Health at ARA who has missed a chunk of schooling at Year 13. Perhaps three hours a week. Looking to move onto Food Technology after completing Pre Health.

Please contact [Alex Bekhor](mailto:) or Biology office for further information.
Looking for work

I am looking for a fixed-term full-time job and I am very flexible over what the role could entail. I am happy to assist in whatever role a research team or department may need; whether that is to work in a laboratory as a research assistant or technician; or in an office environment as a data-entry or administrative person.

I have experience in cell culturing, CRISPR-Cas9, DNA/RNA/protein extraction, PCR, gel electrophoresis, and other research techniques. I am fascinated with science and am a quick and eager learner. I have also worked in customer service for over 8 years so have excellent oral and written communication skills.

My current Master’s thesis is on using CRISPR-Cas9 to perform whole genome screens on head and cancer cell lines under microenvironment stress. I will be competing my degree at the end of February/the beginning of March.

I am moving to Japan in August and hence is why I am only looking for a fixed term role until June-August.

Saumya Bhatta, 027-769-5241
saumya131993@hotmail.com
View CV

Seeking home to rent

We are an American couple (professor and wife), and our 15-yr. old son and are coming to the Christchurch area for sabbatical from 10 Jan. - 25 July, 2019. We are looking for a 2-3 BR home to rent. We haven no pets, do not smoke, and can provide references, including friends living in Christchurch now. Contact is David Flaspohler.

Editor/proofreader available

Experienced editor/proofreader available online for essays, dissertations, theses and for postgraduates’ papers and publications. Specialist help for students whose first language is not English (ESL).
University of Auckland approved proofreader.

Virginia Gray, BSc. (Canterbury), Dip. Edit.
Pennell.edit@gmail.com
027 419 1046

Local honey for sale

Harry’s 2017 honey has come to an end. Wait for another two months (March) before he tends to his hives before requesting anymore 😊

Proofreading and Editing Services

Let me help you produce writing that is clear, error-free and consistent.
Joan Gladwyn, BSc, MSc, CPhys, DipEdit
joan@properwords.co.nz (+64) 21 213 6511

and now for something completely different...

Creating drought-like conditions in Essex

Just like that, summer is over and rugby has begun again!

Documents on chairs
Thought for the week

Sunshine is delicious, rain is refreshing, wind braces us up, snow is exhilarating; there is really no such thing as bad weather, only different kinds of good weather.
~ John Ruskin

Contact details

If you have items of news or interest that you would like included in this newsletter, contact the admin office before noon on Friday at BIOLAdminSharedMailbox or phone ext 95200.