

Season's Greetings

FROM THE
STAFF AND STUDENTS
AT



Otago Biochemistry

15th December

What a difference a year makes! Although Covid is far from gone, it is no longer dictating our every move and life is almost back to normal. The traffic light system did come quite close to stamping out the delta variant in New Zealand over last summer, but then of course omicron arrived with its vaccine evasion and it was all over. The lower virulence of omicron has however, meant that our death rate has remained very low. Masks are still around - their use is required only in medical settings, but it is unremarkable to see them worn at work and around town.

Graduation ceremonies in 2022 have been in person and uninterrupted by security threats or Covid cancellations. Attendance at the May ceremonies was a little down due to the students being significant contributors to our first Covid wave, but the August ceremonies were well attended and we are not expecting the December ones to be affected, despite a looming third wave.

We have had a record number of PhD graduations this year. A total of eighteen over the three ceremonies! Amongst them was Jaye Moors, one of our very few Pasifika graduates. Jaye studied the genetics of cardiometabolic disease in Māori and Pasifika communities in New Zealand under Tony Merriman's supervision. She now has a position at Variant Bio, a Seattle-based genomics company that aims to improve global health by studying the genetics of underrepresented individuals and populations with medically relevant traits.

We've also had some excellent research outcomes in 2022. Steph Hughes has been floating around on cloud nine since August, when it was announced that Neurogene in the USA have begun recruiting children for clinical trials of the gene therapy her group has developed in collaboration with a group at Lincoln. The treatment, for the CLN5 variant of Batten Disease, was partly funded by CureKids, and has shown huge promise in animal trials on a sheep Batten Disease model. The hope is that early treatment of children will prevent symptomatic disease from developing and allow these children to live to a normal adulthood.

Earlier in the year Louise Bicknell made headlines with her discovery of a mutation causing a hitherto unidentified (and as yet unnamed) genetic disorder. Affected people have a range of intellectual disabilities and other neurological issues. Louise first found the mutation in a New Zealand patient, and has since identified it in 29 people from ten countries. Identification of the mutation involved promises the ability to use genetic screening of future pregnancies in affected families.

Huge congratulations to Peter Mace, who is this year's winner of the Rowheath Trust Award and Carl Smith Medal, for outstanding research performance in early career staff. He gave his Carl Smith lecture on the evening of the 21st November to a rapt audience that included current and former colleagues, collaborators, family, and his postgrad supervisor John Cutfield. In the lecture Peter told three "stories" - each describing one branch of his research. These were 1) the importance of the signalling protein MEKK1 in vinca alkaloid chemotherapy drug action, 2) the effect of mutations affecting DNA packaging on cancer, and 3) Tribbles. Tribbles in this context are not small furry creatures on Star Trek, but a family of pseudokinases involved in ubiquitin transfer and hence carcinogenesis.

Promotions have been announced and next year we will have one new professor and two new associate professors in the Department.

The new professor is Steph Hughes, mentioned above regarding her Batten Disease gene therapy. Steph has been in the Department since 2008, she had previously been a Research Fellow at the University of Auckland. She has since built up a large and successful research group and her professorship is a fitting recognition of this. Lynette Brownfield and Louise Bicknell are the new associate professors. Lynette works on plant sexual reproduction, and came to us as lecturer from a post-doc in Zurich in 2011. Her very first student Dr Ben Peters is now a professional practice fellow in our teaching labs. Louise already had an established career researching rare genetic diseases when she brought her large lab group to us from Pathology last year.

Research funding continues apace, with a total of around \$7M in grants again this year. We are particularly pleased that so many of our early career researchers have been successful - Matthias Fellner, Adam Middleton, Ashley Campbell, Chun Shen Lim, and Indranil Basak all having won significant funding for their research, while Katerina Achilleos and Liam Turk were each awarded one of the two available Health Sciences Career Development Postdoctoral Fellowships.



Vice Chancellor David Murdoch with Peter Mace holding his Carl Smith Medal. The presentation also included a copy of Carl Smith's book (long out of print) *From N to Z, A Humorous Survey of New Zealand*.

Photo credit: David Bull, University Photographer

Taking on the wero (challenge) laid on by similar groups around the University, the Department of Biochemistry has formed the Te Tari Matū Kōiora Rōpū Te Reo. This rōpū aims to provide a supportive environment to learn te reo, waiata and karakia, and increase our awareness of, and competence in, Māoritanga in general. The group is modelled after a highly successful group at the Department of Anatomy, and members often jump between the two rōpū according to their schedules from week to week. This allows us to increase our exposure to new topics, practice more often, and make new contacts across the School. Content varies according to a rotating schedule, ensuring that everything from basic reo, more advanced grammatical points, and “academic” discussions of history and culture are covered in the sessions. Over the course of the last year we have also welcomed guest speakers, with a session led by Karyn Paringatai, dealing with how to “break the ice” and challenge yourself to explore new cultural paradigms (and particularly Te Ao Māori), a real hit. The group is facilitated by a revolving cast of helpers, including kaiāwhina Nathan Kenny and students Jordon Lima and Catie Wylie, but we are delighted to welcome others to share their whakaaro. If you are in Dunedin and would like to come join us please get in touch, and we are already planning a range of activities for 2023.

Half of the third floor has been renovated now, with only the eastern end to be finished and this should be complete by the end of 2023. The new(ish) facilities manager is not quite as keen on chipboard as Murray Hamilton was, so the “panelling” has gradually been removed from most of the building’s corridor walls, and replaced with light and bright painted Gib board - shortages of said Gib board notwithstanding. Likewise the old, square, asbestos-containing tiles on the floors have all been lifted, and are being replaced with unexceptionable light (in colour) vinyl flooring. We still have a few bits of floor that are just concrete and old glue at the moment, which does make the place look a bit tatty. We are wondering if we will ever get rid of the workmen - we suspect they’ve become too accustomed to the freshly baked scones provided by the office staff.

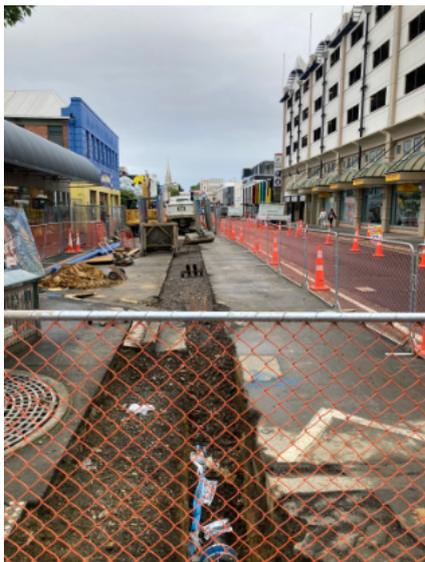


The west end of the third floor looking all bright, clean, and airy. All office spaces can now be accessed without entering a laboratory, complying with current laboratory safety standards. It seems only yesterday that we had the third floor “roof shout”, but it’s actually 25 years since it was completed!

Outside campus, Dunedin is undergoing some major transformations. The underground infrastructure down George, Gt King, and Filleul Streets is being replaced, and work has begun on the new hospital on the old Cadbury's site. At present the hospital is less disruptive than the infrastructure replacement; pile driving doesn't appear to need much in the way of daytime materials delivery, while massive trenches down our main roads make themselves very obvious. Traffic management have people stationed at all of the corners, directing pedestrians where to go to access the buildings they are aiming for. The DCC has taken this necessary work as an opportunity to redevelop three blocks of George St. The Farmers block from Moray Place to St Andrew St has been completed already, with reduced parking, one way traffic, plantings and outdoor seating areas. It's really rather lovely, and we can't wait to see the whole project finished and with a bit of growth on the trees. Closer to home, the University Bookshop building was closed for over a year being completely gutted and refitted as apartments on the top floor (no more remaindered books) and a very flash revamped UBS on the ground floor. The bookshop was temporarily in the old Post Office building across the street, and has just moved back.



Top left: University Bookshop, top floor is now apartments
 Top right, left: Completed upgrade of George St Farmers block, showing streetscape and some of the poetry etched into planters and pavers.
 Right: Gt King St road works between Albion Lane and Centre City Mall
 Bottom left: Old Cadbury's site, future inpatient building. Not much happening here yet.
 Bottom right: Site previously occupied by Big Fresh then WINZ and Aoraki Polytechnic, future outpatient building. Plenty happening, but mostly under the surface so far.



Last year we signed off with:

"Dare we wish you the best for 2022? We are certainly hoping for the emergence of a new SARS-CoV-2 variant that's highly transmissible, completely non-virulent, and that will induce a strong immune response against every other variant. Along with everyone else, we are totally over this pandemic!"

Some of that did in fact happen - we got the highly transmissible variant, which if not non-virulent is certainly considerably less so than delta was. Unfortunately the extensive immune response was conspicuous by its absence, and we had not anticipated a European war, with accompanying energy crisis and global inflation. We have been fortunate to have avoided the very worst of the pandemic, but the current financial situation is no better for the university than it is for individual households. Belts are tightening and we don't see an end to the constrictions in the near future; the job of Departmental head is not an enviable one.

This will be your last Christmas newsletter from Sally and me. Sally completes her term as HOD in February, and I retire in early April. Your 2023 newsletter will most likely come from Peter Dearden as HOD and Miriam Sharpe as "ghost writer".

I'm not sure Sally has exactly enjoyed her tenure as HOD, what with navigating a pandemic and dealing with increasingly straitened financial circumstances, but she can at least look back on it with the satisfaction of a difficult job well done.

I have enjoyed putting together our yearly summary of significant events and reading the emails you send back - but I'm also very much looking forward to being on the receiving end of the newsletter next year, with my feet up and a glass of wine in hand.

Sally and I both wish you all the best for the future.

*Bronwyn Carlisle, Sally McCormick,
and the Biochemistry staff and students*

For those of you who are interested in our research, a full list of publications can be found on our website otago.ac.nz/biochemistry/publications

As always, we do hope you will keep in touch, and send us your own news. Come and see us when you are in Dunedin - we love visitors.

You can keep up with our news during the year from our website on the news page (otago.ac.nz/biochemistry/news), and many years worth of our newsletter archive is also available to download (otago.ac.nz/biochemistry/news/newsletters).

Email your news to: biochemistry@otago.ac.nz

Post your news to : The Secretary, Department of Biochemistry, PO Box 56, Dunedin 9054, New Zealand

Subscribe to [our YouTube channel](#), "like" us at facebook.com/BiochemistryOtago, and/or follow us on [Twitter @OtagoBiochemist](#) or [Mastodon @otagobiochemist@mstdn.science](mailto:@otagobiochemist@mstdn.science) for regular updates of news and publications.