

### Virtual Conference - School of Population Health and School of Medicine

For those of you had a conference or poster presentation accepted but you are now no longer able to attend and present at the conference - this is the opportunity for you!

#### Deadline 22 June

Submit to Hazel Pannell

([h.pannell@auckland.ac.nz](mailto:h.pannell@auckland.ac.nz))

- Your abstract
- Co-authors information
- Poster or conference presentation
- Your permission to publish your abstract on the University website
- Details of the original conference

Thanks to Associate Professor Craig Webster for coordinating this event.

### Keep up the hand-washing!



Cartoon by Barry Blitt - Air Mail USA

For the University's notices on COVID-19 click [here](#).

## Lockdown Life - Dr Sandy Lau

**Role at the University:** Research Fellow, Department of Obstetrics and Gynaecology. Events Committee at PDS, Chair of SUMMIT 2020.

**What has been good or challenging about working from home:** It's been really challenging trying to achieve the same productivity at home as I had working from the University. While it's been great catching up on all the paper work and data analysis, it's been a big shift from being mostly in the lab to only being at the desk. It's made me realise how much I enjoy chipping away at my research project and inspires confidence in my career choice, even during tough times like these. Another upside is no more hour and a half one way commutes!

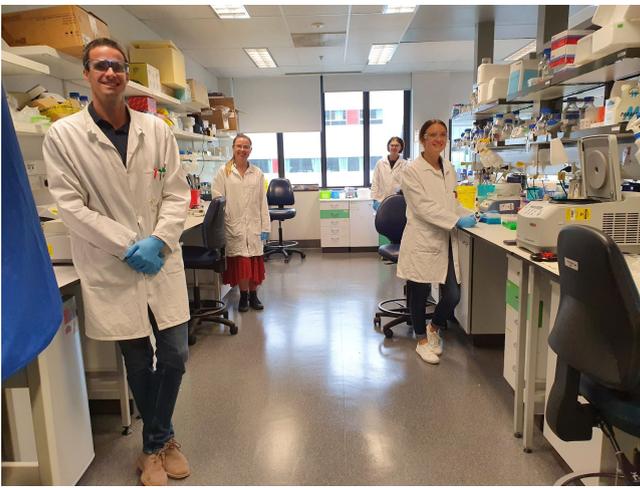
**Outside of work what has been the biggest positive of lockdown:** People. I have a very sweet but chatty 4 year old and it's been a blessing being able to spend more time with her, watch her grow and her personality develop. Most of my PhD, now post-doc friends have been scattered all over the world and with everyone stuck at home it's been great being able to find a time across 4 time zones to catch up with everyone over Zoom.

**What are you most excited to do now that restrictions have been lifted:** Catching up with friends, going out to eat tasty food at restaurants where I haven't been able to get bookings at previously. I'm also really looking forwards flying down to Queenstown for some snowboarding action when the season starts.



Sandy Lau's dog enjoying extra attention from her smaller human owners during lockdown.

**Lockdown Life - Dr Reuben McGregor, Research Fellow, Molecular Medicine and Pathology**  
read about it on the next page...



I think it's fair to say lockdown took most of us by surprise, despite the international precedent being set at the time, the decisiveness of the move in NZ meant every aspect of life had to turn around in 2 days. For home life this meant rushing to buy any board games left on the shelves (note to self, stick to games for children <7-year olds) and a few unsuccessful last-ditch attempts to buy flour and yeast. On a side note, I hate baking. Don't get me wrong, I will devour the end-product with glee but the idea of following a protocol of exact quantities is way too much like a day in the lab. Divergence aside, the thought of 4-8 weeks of lockdown had too many implications on work to comprehend in those 48 hours. In that time our lab, led by Nikki Moreland, made a decision that would change the outlook for us. We were to try and switch our lab's focus from serological responses to Group A streptococcus to serological responses to SARS-CoV-2. We thought anything we could do that may help the local science led effort, despite the possibility nothing would come of it, was worth the effort. So, while watching the mass exodus of people leaving university buildings with computers under their arms, reminiscent of a very subdued doomsday movie, I was running around writing down door numbers of every door we would need access to. Meanwhile other lab members were equally busy stock taking, planning and ordering what seemed like the world's stock of ELISA plates and PBS. Then came the calm before what we anticipated was going to be the storm. In fact, the whole country seemed to be bunkering down. I was well aware that in the background about 1000 emails a day were being sent setting up ethics and study protocols to ensure we could access valuable serology samples for assay validation.

Concurrently there was a real concerted effort to make sure students and other lab members alike would be able to stay in contact and support each-other from home. This included both technological (we now have a lab Slack account) as

well as organisational (re-designing student projects) planning. For me the first week of lockdown was productive but the week after I noticed a steady decline in productivity. This was before we had received any COVID-19 samples and assay validation was slow and only required one person in the lab. We then had a steady trickle of samples coming in as well as an increase in types of assay we decided to run. This meant about half my time at home and half my time in the lab. By this point I had improved the home working environment, we bought a desk and me and my partner found our routine working around each-other. All in all, I found this an optimal balance. I was productive working from home, being able to start earlier (with no commute) and if needed work later as the nature of the pandemic work demanded, whilst breaking up the home working with lab work. Whilst on lunch breaks, I would go for a run/walk or a yoga session. These 2-3 days of working from home brought with it a sense of self-care that I hope to take forward. The lab itself was eerie. Only one to three of our lab team were in at any time. The introvert in me relished this opportunity, to do lab work with little distraction. Whilst the social me missed the busy tea rooms and general student hubbub. Overall I made the most of the more subdued atmosphere in the lab, especially given the unpredictable nature of the work.

The next 3-4 weeks which included the end of level 4 and level 3 was for me when the work really kicked off. We had optimised several assays and had collected most of the samples we needed to validate them. Briefly we used published protocols to set up ELISAs to detect antibodies generated to both the Spike protein and the receptor binding domain (RBD) of the SARS-CoV-2 virus, as well as ELISAs to measure isotype specific responses to both antigens. Additionally, we had been validating a commercially available competition ELISA which measures the ability of antibodies to block the RBD-ACE2 interaction (which is the mechanism the virus uses to enter human cells *in-vivo*). This work would not have been possible without the monumental efforts by multiple players around New Zealand. Spike and RBD protein were being made by labs in Christchurch and Auckland, COVID-19 serology samples were being identified and collected by multiple healthcare professionals and all the members of our lab who showed an immense level of flexibility and work ethic. This period really showed me how important collaboration is and how it can be successfully achieved even in these unprecedented times.

Not only did the lab workload increase significantly, but the exponential increase in publications using serology meant trying to keep on-top of the literature was a struggle. In addition, we decided to publish the findings in a NZ journal. This meant the increasing amount of data being collected also had to be rapidly analysed and transformed into publication quality figures and text. Luckily the team's effort made this process as seamless as it could be, given the circumstances, and the resulting submission made the whole process feel worthwhile. This last weekend has been the first one I think we could all take a real breather and luckily it was a bank holiday. I went surfing every day and it has felt like a well-earned weekend off enjoying the best Auckland has to offer.

- Dr Reuben McGregor