Happy New Year to everyone as we get into what we hope is a healthy productive peaceful next twelve months.

Some staff changes to note especially as tomorrow we welcome Dr Fa'aalaitaua Schuster [known as Taua] to our practice as our new Registrar and Dr Lu Man starts two days working as a health care assistant relieving Claire on Mondays and Tuesdays.

Lu Man is a Chinese doctor and to finish off her application to work in NZ as a Medical Doctor she needs to brush up her patient contact skills and learn NZ ways of doing things. In China she was a Pathologist [that's the person working in the Laboratories looking down the microscope at our cut out lumps and bumps, and even dealing with dead people to work out the cause of death]: here she will need to join a Registrar Training scheme and do the 4 years needed to qualify as a Specialist, but she is also a NZ qualified Doctor in that she has a PhD in Health Science, so like most of the lecturers at University is a Doctor in the theory of medicine but not a clinical Doctor of medicine. Sounds Confusing? Don't worry, she will just answer to her name Lu Man. For those Mandarin speakers out there she is of course, is fluent and a good point of contact in our practice. Claire is now going to take two days a week off to swot first for the theory exam [which Lu Man has already passed] and then she will do the same clinical exam that Lu Man is preparing for and both of them can then register and practice as doctors in New Zealand. Maybe Claire then will come back to us as a Registrar and then stay with us? We hope so. She will need some time at Middlemore first to help her learn the NZ way of doing things. Just like Manu Lu will need to go back to being a trainee, a Registrar, to learn our ways of doing things. We are excited to have her, if anything to teach her those issues with slides she is looking at come off real people! She knows they can make the difference between our patients being OK or having long treatments or at the worst, if neglected, death. Great to have her and we have a very real shortage of pathologists - hence the delay in us getting lab

results- because of the one-way flow to Australia, which is far richer than us and can afford to pay salaries 4-5x what we doctors earn here.

I want to talk in this blog about DermEngine, an exciting new development in our practice. This is AI at its best: Artificial Intelligence. As patients know I have never been a fan of Mole Map. Melanoma can go from no to go in a little as 4-6 weeks: an annual mapping ain't going to find many soon enough unless you are lucky and the other much less serious BCCs and SCC's would announce themselves anyway as they grow slowly. Then they can be removed easily here at the surgery in nearly all cases. We have signed in to DermEngine, American Silicon Valley system which involves our smart phone cameras, a very fancy lens attached, and a photo of the lesion emailed to USA. There it joins a rapidly growing date base where AI compares it to the most resembling lesions in its database and emails us the most 28 lookalikes it finds. These pics join your notes for further reference. If it says something like 70% like a Senile Papilloma and 30% like a basil cell carcinoma (which never spread elsewhere] discussing it together we may opt to watch it and see if it gets bigger which would mean it probably was a BCC and either cut it out or send a referral to the Plastics service at Middlemore Hospital. But if it said 90% it was a dysplastic naevi [funny dark deep mole] but 10% chance of a melanoma I would not only want it out as a potentially aggressive cancer as fast as possible before it spreads. Recently a patient arrived in with what I recognized instantly as a melanoma behind one ear that the hairdresser saw and sounded the alarm as it hadn't been there at the haircut six weeks prior: being complicated surgery it went to the plastic surgeon who cut it out the following week, and despite 36 tiny stitches and a graft it's hard to see where it was. He got it completely with clear wide margins. hey can be fast or slow growing. My own mother died of the brain metastases of a neglected melanoma on her leg 9 years before: despite her dying with grace and fortitude I never wish to see that again. It

was a horrible death of nausea, vertigo and vomiting and I bless those wonderful Hospice nurses who looked after her as she was so sick I couldn't even put her in an ambulance and bring her to Auckland.

So DermEngine is here at our practice and up and running fully by mid February for those who want to book in. Most medical insurances cover the cost.

DermaEngine will work differently than Mole Map. It will do whole body scans but unlike Mole Map with its trained but not medical staff who choose what lesions to send onto a trained dermatologist, it maps the whole body. The statistics say 85% of melanoma arise in existing dysplasic naevi's [dark deep moles] but 15% come out of nowhere. Al will pick up on this. The whole body scan will cost \$290. So far, we have paid up front over \$7k+ to set it up and we have a large cost yearly to maintain it but think it is worth it for our patients. Any suspicious lesions identified separately will cost \$100 extra to a consultation [regardless of number] as \$60 of that goes to DermEngine. If the lesion is excised, the histology goes to DermEngine to add to their data base [without identifiers like name or NHI number] as the bigger the database, the more accurate AI is. Recent studies published have shown how good Al is with picking up missed early breast cancers on mammography and photographable skins will be similar. No, Al won't take over our job: it will make diagnosis quicker and more accurate and by picking up cases early, allow simpler, less invasive and curative treatments. This means less chemotherapy, less cost in both time and money and less miserable deaths.

We have a new doctor Dr Taua Schuster just started this week who will be working Mondays, Tuesdays, Thursdays and Friday mornings, and starting early at 8am like I do as she also is local. She is just lovely and keen to learn to do all those things like surgery for skin cancers and removal of sebaceous cysts, joint injections, putting in contraceptive devices, etc. These skills are sadly dying out among the new generation of General Practitioners, and it is good to see some of our youngers ones keen to learn.

Naku noa, Jacqueline and all the team at Tiakina Te Ora.