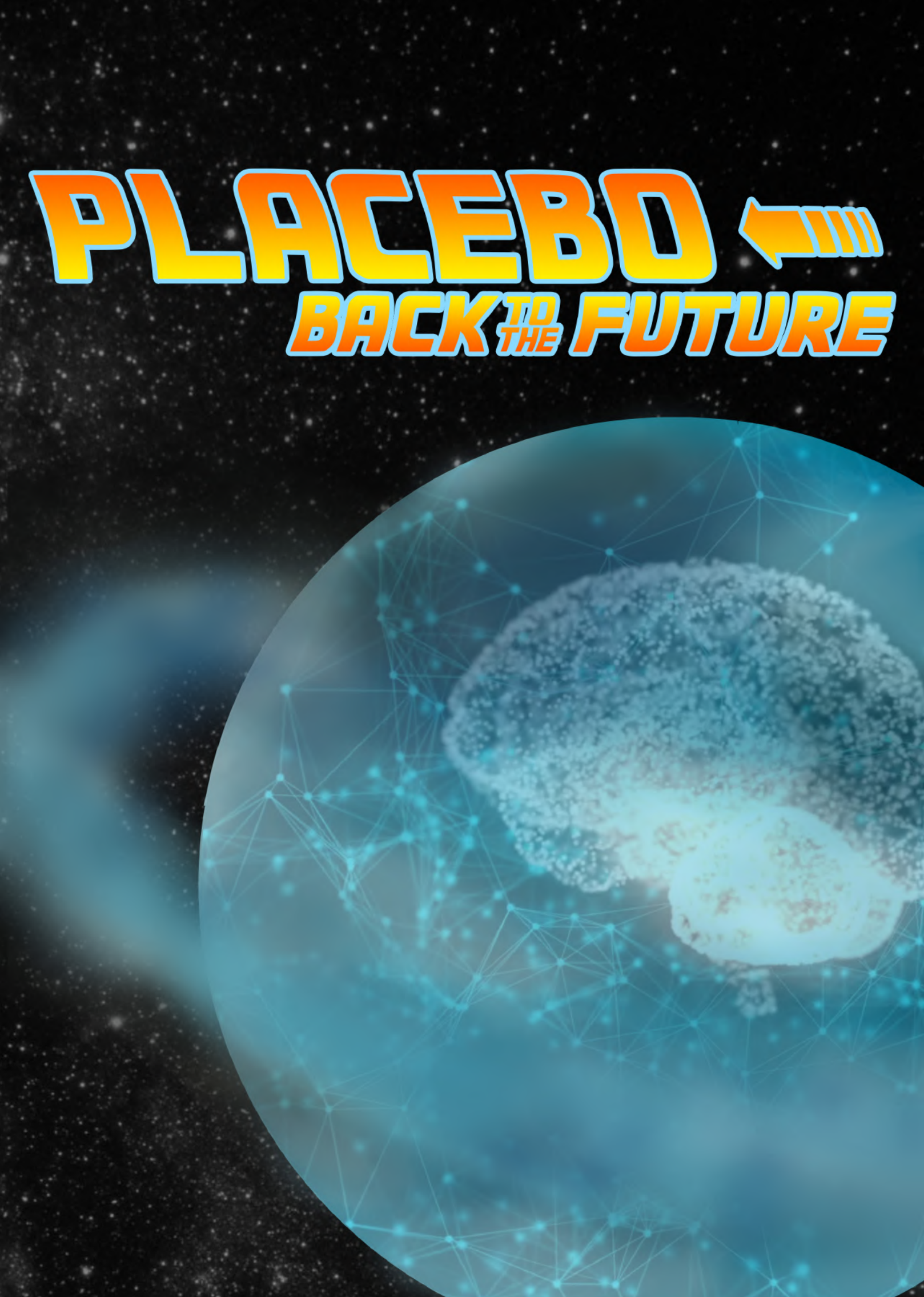
# PLACEBO

## BACK TO THE FUTURE



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# CONTENTS

# WELCOME



# THE FUTURE IS ALL ZOMBIES AND JOB SATISFACTION


**Jarrod Hulme-Jones MD4**
**FMSS President**


It's with great pride and privilege once again that I commend to you the exceptional creative written and visual work of Flinders MD students in this magazine! And again, like a Labrador who is a good boy when asked to fetch a very big stick from the river, I'm called on to write an article- I really am loving splashing around, but the task is hard and might take me a few goes. This time the theme is 'the future of medicine', and after my recent visit to the extremely high-risk Pathogen Outbreak Containment Area at the Royal Free London Hospital (pictured), I'm very tempted to write about the inevitable zombie apocalypse. But instead, I've got a topic much, MUCH more exciting - hospital administration (I know, hold onto your pants).

As scientists, medical students have always been encouraged to ask 'why?' whenever a statement about the natural world is made. For better and worse, I happen to apply this practice to everything in my life. It is consistent then that the focus of this article is: in SA, **why** aren't junior doctors *empowered to be doctors?*

Bluntly, the Australian hospital system has the most challenging work culture I have ever experienced, and I was once working as a civilian analyst embedded with the Australian military. Survey data collected by the AMA and SA Health tells me that junior doctors around the country and SA largely agree with me, and a 2019 FMSS survey of medical students focussing on bullying and fatigue during clinical placements further corroborates my claim. It is my view that an important contributing factor to discontent amongst junior doctors is the way roles and responsibilities are divided such that juniors are deprived of the interesting and meaningful jobs they have trained for and are instead left with vital but draining administrative tasks.

In each medical team (and I am really talking about ward-based ***medical and surgical*** teams during dayshifts here) I have worked, interns are not empowered to engage in diagnosis and management related decision making. They instead assume the role of admin assistant for senior residents, registrars and consultants. And if the most junior doctor in the team is a resident, then the resident takes the role of the intern and so on. Concerningly, this work is supposedly demonstrating that an intern is certified to practice independently, such is the purpose of internship. But how does a year of making phone calls to GPs, writing discharge summaries, following orders to update drug charts and taking bloods make an intern more adept at taking ownership of the diagnostic and management decisions for a patient? The former set of tasks bares almost no relation to the latter. It seems rather that internship is a year mostly off medicine to complete an orthogonal admin-laden rite of passage role, for which a doctor is woefully overqualified, in order to eventually be allowed to diagnose and manage patients (except at night- because it makes sense to give interns more responsibility only once they have less supervision- of course). Perhaps diffusion of those actual doctoring skills by simply being at the bedside with more senior doctors may slightly improve intern competency over the year, but our industry has never accepted simply being around as an adequate replacement for practice.

In the table below, I've summarised how the tasks required for each patient are split between doctor training levels in most teams I've been a part of. It's not a perfect representation of all tasks for all teams, but rather an approximation.

As seen in table 1, doctors in training and medical students are rarely given opportunities to complete the full range of tasks that are expected of a doctor for any one patient, even for the lowest complexity patients. Instead they find themselves doing the administrative tasks for every patient. In this way, these doctors in training are not training for the tasks that they will be trusted to do independently once promoted - instead

**Table 1 : current roles and responsibly division as I see it**

| **Consultants make decisions for all new patients and keep a close eye on management of pre-existing patients** | | | | |
|---|---|---|---|---|
| | **Very low complexity patients** | **Low complexity patients** | **Intermediate complexity patients** | **High complexity patients** |
| **Admissions** | Intern | Registrar or Resident | Registrar or Resident | Registrar or Resident |
| **Clinical decision making (including diagnosis, choice of investigations, choice of management, when to discharge – on the ward and in clinic)** | Registrar | Consultant or Senior registrar | Consultant or Senior registrar | Consultant |
| **Execution of management activities (writing drug charts, arranging investigations etc.)** | Intern | Resident or Intern | Resident or Intern | Registrar, resident or intern |
| **Discharge summaries** | Intern or senior medical student | Intern or senior medical student | Intern or resident | Intern or resident |

they are doing tasks they will immediately leave behind. The future of medicine, I hope and if I have anything to do with it, will flip this role allocation on its head (or rather its side, if you're looking at the tables). To make work more rewarding for medical students, interns, residents and registrars whilst continuing to ensure all elements of care are completed by an appropriately trained doctor, task allocation should be changed so that at all levels of experience, doctors are exposed to the full range of their duties. This model, influenced by the way my wife's (a lawyer) employer operates, would allow them to safely train for nearly every task that is required of them in the future, with the patient complexity increasing as they gain experience. See table 2 for this idealistic model.

Now, I know that the most difficult element to accept from this proposed model is that anyone other than interns, residents and medical students should have to write a discharge summary. At risk of sounding controversial here: I don't understand the argument that registrars are usually doing important work that prevents them doing discharge summaries. I don't think it's a real explanation, as when on occasion a team has no one more junior than a registrar, guess who writes the discharge summaries? In my view, complex patients for whom registrars have made almost all the diagnostic and management decisions, and for whom registrars are the most experienced medical communicators, should have registrars write their discharge summaries. Truly patient centred care means creating the best possible handover to the GP and/or residential care and/or future caring hospital clinicians- and that means a discharge summary from the doctor who was primarily responsible for the patient's care (from intern to consultant if the patient is exceptionally complex).

Certainly, a change to roles and responsibilities like this wouldn't suddenly fix all the issues affecting junior doctors, but it would go some way to positively changing the way they are viewed in the workplace and make them feel more valued. All whilst not exposing patients to any increased potential harm. At the same time, it would bring hospital teams in line with the clear role allocation model used by many big corporations (the RACI – responsible, accountable, consulted, informed – model). In table 2, it is obvious who is accountable for

**Table 2 : my proposed model for the way roles and responsibilities should be divided**

| Consultant is across all patients and involved in all risky management decisions | | | | |
|---|---|---|---|---|
| | **Very low complexity patients** | **Low complexity patients** | **Intermediate complexity patients** | **High complexity patients** |
| **Admissions** | Supervised senior medical student or intern | Intern or Resident | Resident | Registrar |
| **Clinical decision making (including diagnosis, choice of investigations, choice of management, when to discharge – on the ward and in clinic)** | Supervised senior medical student or intern | Intern or Resident | Resident | Registrar |
| **Execution of management activities (writing drug charts, arranging investigations etc.)** | Supervised senior medical student or intern | Intern or Resident | Resident | Registrar |
| **Discharge summaries** | Supervised senior medical student or intern | Intern or Resident | Resident | Registrar |

patient outcomes (always the consultant), who is responsible for their care (each level of other doctor based on patient complexity), who ought to be consulted (the patients, their families, possibly other hospital teams, and others within the medical team) and who ought to be informed (as for 'consulted' but, with any other interested parties).

So, where to from here? Well, I'll be taking my model around with me in my brain and talking about it with people who make decisions in this space. These things move slowly, and old habits (especially in the medical world) die hard. Hopefully, in 5-10 years' time, we'll see something like table 2 as commonplace.

Jarrod Hulme-Jones
President FMSS
PS: the zombie apocalypse starts next Tuesday.

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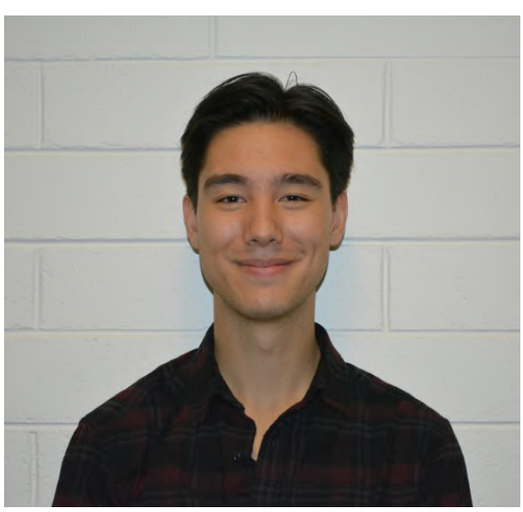
## Emerson Krstic MD2
## FMSS Vice-President Internal



What is the future of medicine, and what does it look like? Are there still doctors, nurses, allied health professionals?... are there still patients? The article requirements never said anything about how far into the future we're looking, so dammit if I want to write a science fiction piece I will!

In all seriousness, the future of medicine is intriguing. New developments in wildly exciting fields are being made every day. There are now machines that can locate cancerous cells on a blood film more accurately than trained pathologists. Based on this fact alone, some might say that the future of medicine is Artificial Intelligence... and maybe they are right.

But personally, I believe in the people power of medical professionals, the humanistic care that they can provide, and the comfort they can bring to the ill. I believe that for a long time to come, sick and vulnerable people will look to other human beings for care, and I hope that it always remains that way. Care is such a fundamental part of the human condition, and a future where AI does the caring for humans is such a chilling thought... it truly does sound artificial.

So, what is the future of medicine then? It's us. It's the medical and allied health students of today that will be the future of medicine; it's the values and quality of care that we will afford to others; and it's the sense of real human care that makes me think there will always be doctors, nurses, and allied health professionals ready to look after patients.

## Ysabella Tyllis MD2
## FMSS Director of Publications

Wow – what a year! As we tie up the loose ends of 2019, one can only wonder... 'What now? What will the future hold? What will I be doing next week, month or year?' Our futures are in medicine, and within medicine, so much is coming.

Being part of the next generation of doctors, I can't help but to think about how much will change throughout my career, and how much change has come before us. We will hold new attitudes and new ways of thinking that will shape the world of medicine. I look forward to seeing technological advancements that will enhance our patient care, and new treatments and research that will redefine healthcare. The pace at which changes are happening is mind-blowing (and occasionally scary), and with all the new changes comes new fears – will we be replaced by robots one day? Will we be able to keep up with the ever-changing environment? Only the future will tell.

Another important change that I hold particularly close to me, is the increasing female presence within medicine. Did you know that Australia didn't have female medical practitioners until the 1900's? It wasn't until the 1970's that the world saw an increase in women graduating from medical school. Compare this to now, when we currently have more females than males enrolled in medical schools around Australia. While there is still some inequality in specialisations and leadership roles within the field, I can't help but feel proud of the strong and wonderful women before me that have allowed me to be in the place that I am. I look forward to seeing what the future holds for us moving forward!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# ACADEMIC



## THOUGHTS FROM THE DEAN [EDUCATION]

**Associate Professor Alison Jones**

I have been working in medical education since 1994 and I was delighted to get the position of Dean, Education, at Flinders University late last year. I have come full circle in the twenty five years since being appointed to a role in London evaluating medical curriculum change. The General Medical Council had recently released 'Tomorrow's Doctors' - a call to arms for those involved in developing this important workforce to do better and to challenge some of the traditional approaches. It provided an opportunity to take on a role evaluating the medical curriculum (and the dental curriculum) at a leading medical school. It opened my eyes to the complexity of providing training in a healthcare setting, of developing simulated learning environments, of running large scale OSCEs and getting the results out within a couple of days, of trying to persuade clinicians that their specialty was really important but we couldn't dedicate several weeks to it in the curriculum, and so on.

Back then we had strong links with general practice, perhaps because the healthcare system was set up to enable this. It was a great foundation for my learning and gave me the opportunity to come to Australia to work with the Commonwealth Government on developing an alternative approach to general practice training. I have taken the opportunity to work in New Zealand, back in the UK (work and a PhD) and now in Australia. I have learnt a lot from the different roles, not only in university medical education but also in the specialty medical college sector working for the Royal Australasian College of Physicians. My eight and a half years working in government provided valuable insights into the challenges of efficient healthcare delivery and it was at times tricky to maintain a focus on how we provide quality learning environments for our junior doctors when there were so many political and strategic factors at play.

Across the continuum of medical education and across the three countries I have worked in, there are many similarities.

Some things have changed, but much has stayed the same. 'Getting into medicine' is still held in high esteem and competitive – although we now see a more diverse cohort. 'What are you going to specialise in?' is still asked of medical students far too early in their studies. We still have a problem with the distribution of the medical workforce in Australia which means some populations are significantly disadvantaged in their access to quality healthcare. And healthcare systems continue to evolve. In 1992, Sir Bernard Tomlinson presented his report to the British government on the provision of healthcare in inner London. He needed to consider:

*'the need to maintain high quality patient care and, as a foundation for this, high standards of medical teaching research and development'*

Many hospitals were in financial difficulty as their high overheads and the way their services were organised made them unsustainable at a time of health service reform. Sounds familiar. Sir Bernard noted:

*'It is essential that work be put in hand now to plan for a more appropriate level of capacity, and to rationalise the many dispersed specialist services. Closures and mergers will be necessary. Proposals in this report, together with changes already planned ... will reduce the level of productive acute sector capacity by around 2500 beds.'*

So I started a career in medical education when it had been announced that eight of the nine medical schools in London should merge into four and medical education needed to move into primary and community settings, with greater use of the outer metropolitan (peripheral) hospitals. I raise this as I feel it is so important we equip our future graduates to manage their careers in complex, pressured, and ever changing healthcare settings.

On reflection, I was probably naïve to the turbulent times for the healthcare system and medical education. We continue to strive to deliver quality medical education in Australia in a healthcare system that is constrained and has so many competing priorities. How do we keep the importance of being a teaching institution at the centre? New funding models are on the horizon for universities – we need to pay attention to graduate employment rates, student satisfaction surveys and retention rates, as well as supporting diversity in our cohorts. The challenges continue and this provides us with a mandate to be adaptive in our thinking. We must continue to innovate and to explore the needs of stakeholders. The national review of medical intern training called for more 'work ready' graduates – but we have yet to clearly define what this means.

There are some great initiatives already underway in our medical program. One of the most rewarding parts of my role is being a learning coach to nine first year medical students. They may not meet with me often, but it feels a privilege to be following their journeys, ups and downs, through the medical program. Their frank and authentic reflections on life and study are insightful and provide me with a real world context for the big picture system changes that can at times seem insurmountable. I very much look forward to seeing these nine people graduate and will follow their progress with interest.

We need to evaluate these innovations, embed them across the system when they are shown to add value and create some thinking space for new approaches. Whatever we do must have patients' needs at the centre, and we need to continue to strive for a diverse workforce, practising the right things in the right places and being able to navigate and influence the systems they work in. I am very excited about the next few years ahead and the opportunities available.

# SPACE MEDICINE


## Dr. Rowena Christiansen

**Chair, Associate Fellows Group, Aerospace Medical Association**
**Space Life Sciences Committee Member, Australasian Society of Aerospace Medicine**
**Medical Educator, University of Melbourne Medical School**



Space medicine is one of the newest disciplines in medicine. It is a fascinating area that lies at a multi-dimensional junction of physiology, physics, biochemistry, human factors, and psychology.

Human exploration in extreme environments has always 'pushed the boundaries', but it is important to remember that humans evolved to live at or around sea level, in a fairly temperate climate, with gravity of 1G and an atmospheric oxygen concentration of 21%. Some predictions about how humans fare in the space environment can be obtained from analog studies and parabolic 'zero-gravity' flights, but actually being in space is necessary for a full understanding of the short, medium, and long-term implications.

Space is an inhospitable environment. Temperatures in near-Earth space range from +120°C to -180°C in the shade, well exceeding recorded temperature extremes on Earth of approximately +95°C to -95°C. Thus, humans living and working in space require good environmental control systems. Whether this is within a habitation module or a spacesuit to overcome the ever-present risks of both heat stress (as experienced by the Apollo astronauts) and hypothermia and cold injuries (e.g. frostbite). In 1862 two hot air ballooning pioneers were the first to experience the consciousness-dimming effects of hypoxia from reduced barometric (atmospheric) pressure at high altitude (12,000m). The physiological challenges of ascending the world's highest mountains (such as Mt Everest, 8,848m) without supplemental oxygen are well known. Space is a near-perfect vacuum, with no atmospheric pressure, no oxygen, and no transmission of sound waves (unlike all the noisy battle scenes in sci-fi movies). Decompression sickness (normally associated with divers ascending to the surface too quickly) is also a concern for astronauts when transitioning between the different pressures in their habitation module, airlocks and spacesuits.

Gravity gradually diminishes depending on the distance from a large celestial body like the Earth. The International Space Station is in "free-fall" around the Earth, resulting in microgravity conditions, whilst true "zero gravity" only occurs further out into space.

Although oxygen, carbon dioxide, and pressurisation can be kept to a physiologically acceptable levels in a space habitat, the near-absence of gravity is a far more challenging problem, and this is responsible for the majority of the physiological changes which occur.

Humans can adapt to microgravity conditions, but the flip-side is that consequences such as orthostatic hypotension can occur on return to a gravitational environment. This is likely to be more problematic for landing on Mars (0.38G) than the Moon (0.16G).

Astronauts get a bit taller in space! The gravitational force on the intervertebral discs is unloaded, resulting in lengthening of the spine, but back pain can result.

Microgravity-related changes in the cardiovascular system include fluid redistribution towards the top part of the body. Astronauts develop 'puffy faces and chicken legs', including facial oedema and hyperaemia, nasal congestion, jugular venous distension, and thinning of lower extremities (approximately 40% reduction in interstitial fluid levels). Blurred vision can result from raised intracranial pressure after 1-3 months in space.

Early in spaceflight, the kidneys perceive an excess of fluid (hypervolaemia) and excrete more of it, leading to hypovolaemia. Dehydration and increased bone calcium mobilisation leads to an increased risk of renal calculi and bone fractures. A relative anaemia develops with reduced circulating blood volume, shedding of 'excess' red and white cells, and reduced red cell production.

The changes in the musculoskeletal system are of great concern for two main reasons. Firstly, there is loss of bone mineral density and bone calcium. Bone resorption dominates over bone formation, and in weight-bearing bones, mineral density is lost at 1-2% per month. This continues for duration of microgravity exposure, and carries a risk of osteoporosis and fractures.

Secondly, there is a loss of skeletal muscle mass (atrophy), with decreased muscle fibre size and muscle strength, resulting in a loss of aerobic fitness and exercise capacity. Deconditioning occurs from the low-workload microgravity environment, and there is a loss of 20-25% after just 9-14 days of spaceflight. The heart muscle also suffers. Muscle weakness and fatigue could result in mobility issues, lack of coordination, and difficulties with equipment operation.

Another challenge relates to spatial orientation. On Earth, the brain coordinates signals from our eyes, inner ear vestibular organs (semi-circular canals) and deep sensors from muscles and joints (proprioception) to maintain balance, stabilise vision, and understand our positioning and direction of movement. With the loss of gravity, fluid in the semi-circular canals no longer convey feelings of rotation or 'up and down', and there is conflict between what we see and what we 'sense'; for instance, your eyes can tell you you're upside-down, but your 'balance' says you are tumbling. This conflict between what you see and what you feel causes "space adaptation sickness", or "space sickness" – symptoms of nausea, vomiting, headache, and disorientation that subside suddenly after 2 or 3 days in space.

There is a reduction in sense of smell (nasal congestion) and taste, necessitating stronger-tasting food! Tooth and gum disease may result from changes in mouth flora, hygiene practices, dehydrated foods, and microgravity-induced decreases in bone density. There is a risk of changed nutrient absorption or malabsorption and changes in gut microbiota. Beginning pre-flight, stress response activation results in increased cortisol levels and increased protein (muscle) breakdown and inflammatory markers. Immune system function (both cell and antibody-mediated immunity) decreases. Some contributing factors include radiation, microgravity, stress, isolation and alterations in the circadian rhythm. In-flight reactivation of herpes and Epstein-Barr viruses is seen.

Finally, everyone always wants to know what would happen if you found yourself outside the airlock without your spacesuit on. Fortunately Hollywood has it wrong! You will not explode, as skin elasticity keeps everything in place, and your blood pressure continues to be regulated until you go into shock. As per Boyle's Law, the air in your lungs will expand with the reduced ambient pressure, so, breathe out to avoid lung rupture!

The nitrogen dissolved in superficial blood vessels may come out of solution and form bubbles so you could get a bit puffy (adding to your existing 'space face') and develop decompression sickness. Any surface water around your body would vaporise so the moisture on your tongue would start to 'boil'. Environmentally speaking, you could get hypothermia from extreme cold of space and 'sunburn' from cosmic radiation. With the lack of oxygen you would lose consciousness pretty quickly (around 15 seconds) and would be dead after about two minutes if not rescued.


The reality of practising space medicine in space is far from the glamour of Dr McCoy's sickbay on "Star Trek". There are many challenges around the things that we take for granted in everyday practice here on Earth, including access to imaging modalities, laboratory tests, supplies and equipment, pharmacopoeia, and access to adequate nutrition to support good health and wellbeing. Two additional challenges for long-duration space exploration will be supporting the psychological wellbeing of astronauts in an isolated and confined environment, and developing countermeasures against radiation exposure from solar flares and cosmic radiation once astronauts leave the protection of the Earth's magnetic field.

With medical emergencies, you can't just call '000' and expect a quick response. In terms of communication delays and scope for evacuation, whilst there is a delay of only a few seconds between the Earth and the ISS or the Moon, and evacuation may be possible, with Mars the delay will be 8-24 minutes each way (depending on distance), and a one-way trip can take up to 270 days.

This means that on-board medics will need to be confident in acting autonomously, but telemedicine will be an important resource. Some kind of robotic surgery capacity may well play a role, but at present we are far from the autonomous surgical pod depicted in the movie "Prometheus".

Microgravity surgery is highly problematic, as everything will float unless tied down, including the patient and the surgeon, and this also makes CPR challenging. Arterial blood will spurt and float in droplets, and venous blood adheres to and obscures the surgical field due to surface tension. Bacteria float in the air and become more virulent in the space environment, thus increasing the risk of infection, especially with space-induced immuno-compromise.

Anaesthetic practices will also need to adapt, as it is not practical to use inhaled anaesthetics in a closed environment (lest you anaesthetise everyone!), and the effect of changes in cardiovascular physiology on drug metabolism and responses is unpredictable. There may be a greater role for regional anaesthesia and pre-hospital approaches such as the use of ketamine.

Given these difficulties, at least in these early years of space exploration, there will need to be a greater emphasis on preventative strategies, such as careful selection and individual risk assessments for astronauts, and alternative treatment algorithms, such as the use of IV antibiotics (+/- abdominal drainage) for suspected acute appendicitis. As the appendix is useful, and forms an important part of the gut immune system, NASA does not recommend prophylactic appendicectomy.

For those interested in pursuing a career in space medicine, there are two positives on the horizon. The first is that we now have an Australian Space Agency. Even though the Agency's priorities currently lie elsewhere, eventually there may be employment and exchange opportunities for would-be space doctors and astronauts. The second is that the advent of 'space tourism' will require appropriately trained doctors to provide the pre-flight medical checks for those hoping to take a joyride to the edge of space. The Australasian College of Aerospace Medicine provides an avenue of specialisation whilst waiting for space medicine opportunities to open up. There will be a lot of competition when they do, but as the old saying goes – *"ad astra!"* ("aim for the stars").

**Further reading:**
*Clement G. Fundamentals of Space Medicine.* Second Edition. New York: Springer; 2011.
Gradwell DP, Rainford DJ, editors. *Ernsting's Aviation and Space Medicine.* Fifth Edition. Boca Raton: CRC Press; 2016.
Stepanek J, Blue RS, Parazynski S. *Space Medicine in the Era of Civilian Spaceflight.* N Engl J Med. 2019; 380:1053-60.

**Images:**
*The science of 'weightlessness'*
http://sitn.hms.harvard.edu/flash/2018/free-falling-the-science-of-weightlessness/

*Earth's protective magnetic shield*
https://www.esa.int/Our_Activities/Human_and_Robotic_Exploration/The_radiation_showstopper_for_Mars_exploration

*Exercising on the ISS (NASA astronaut Nicole Stott)*
https://www.nasa.gov/mission_pages/station/research/experiments/explorer/Investigation.html?#id=949

*"In space no-one can hear you scream"*
https://soundcloud.com/vogonpoetrymusic/vogon-poetry-in-space-no-one-can-hear-you-scream-vocal-demo-snippet

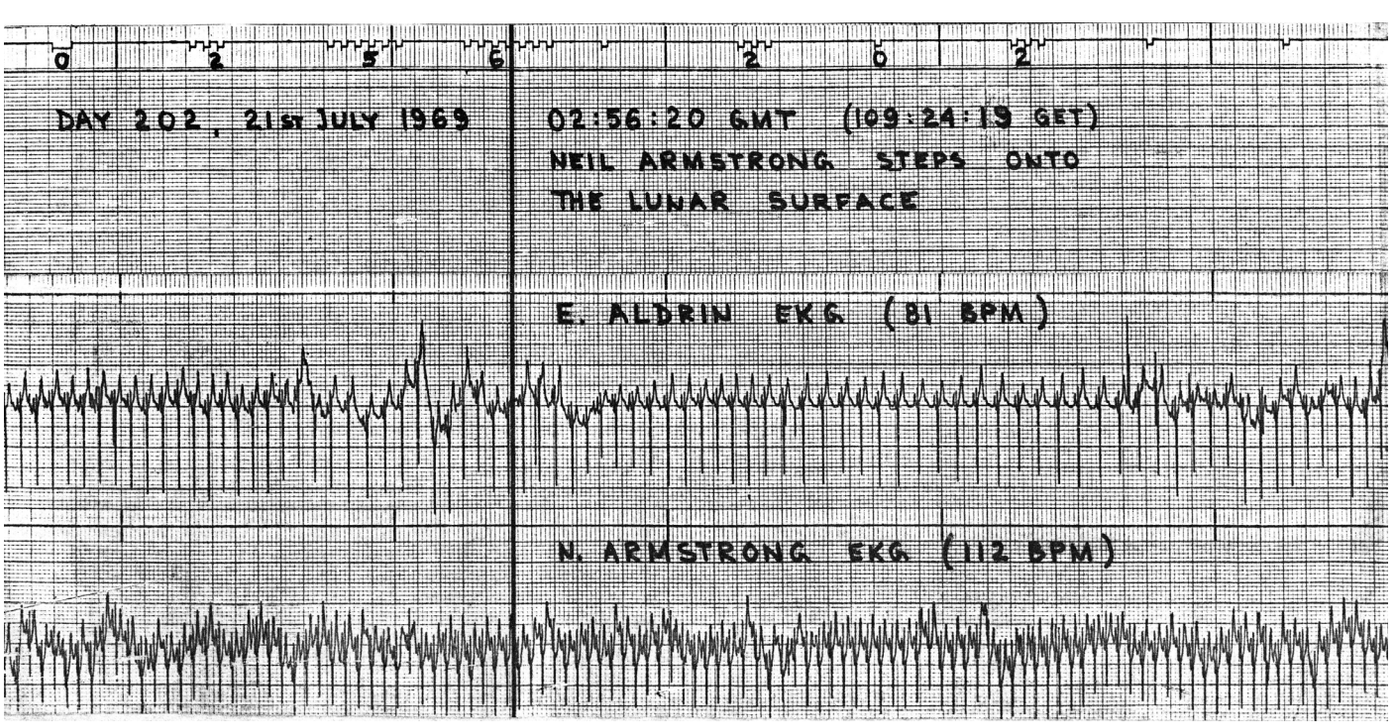
*Star Trek medical equipment*
http://www.ex-astris-scientia.org/gallery/factfiles/medical-equipment-2374.jpg

*How 'free-fall' works (orbital velocity)*
(Figure 5.5) http://www.thestargarden.co.uk/Newtons-theory-of-gravity.html

https://commons.wikimedia.org/wiki/File:Newton_Cannon.svg. Licensed under an Attribution-ShareAlike 4.0 International (CC BY-SA 4.0) license, https://creativecommons.org/licenses/by-sa/4.0/.

*Prometheus Surgical Pod*
https://prometheus.fandom.com/wiki/MedPod?-file=MedPod.jpeg

**If you have any questions or would like to know more about space medicine, please feel free to contact me via email: rchr@unimelb.edu.au**




***Apollo 11 Moon Landing EKGs (ECGs)***
https://honeysucklecreek.net/images/images_Apollo_11/A11_EKG_First_Step_HSK.jpg

# WOMEN IN MEDICINE

## Dr. Michelle Atchison

**Consultant Private Psychiatrist**
**Vice President of AMA(SA)**

Medicine is a difficult career for women because we are the ones who can have babies. Not particularly politically correct, but it was the truth for me and it remains the truth for my female colleagues. It was brought home last year when I listened to a female doctor tell me about her friend who had had her labour induced weeks early so she could sit a viva examination. Why do we put medicine before our children? Why do we have this attitude put into us through medical training that this is a somehow normal thing to do?

Training in medicine for most women happens at a time when you would usually be developing relationships and planning, if you want, to have children. If you came straight into medicine, did an intern year and then went straight in to a five year training program, as I did, you would be 30 by the time this was finished. For most doctors now this is simply not achievable. Training programs are more difficult to get into and training is often extended.

So do you have your children during training or do you wait until you are finished and have more control over your time and destiny? For many women doctors, waiting just isn't a reproductive option.

I waited and had my first child at 34. Then a miscarriage at 36, then IVF, then no more children. This is the truth of medicine and how a career that truly focusses you on the career at the cost of the rest of your life balance can affect your life trajectory.

I have many friends who proudly tell me their daughters are going to do medicine. They have worked hard and deserve the chance for a great career. Because medicine is a great career, but it can come at the cost of other important areas in your life.

This then raises the issue of how do we advise our next generation of female doctors? Many are coming later to medicine through post graduate pathways and will likely need to wait longer to join a training pathway. Is a discussion around the impact of medicine on your life in areas other than your career worthy of discussion? How can we support women to tread this delicate and difficult path? I believe we can already see the impact of life balance in the relative lack of women in leadership positions in medicine. Let's open this discussion up!

# OPINION



## FGM EVENING

**Alice Short MD2 & Vanshika Sinh MD1**
**FMSS Director and Officer of Equity and Anti-discrimination**

Female genital mutilation (FGM), while not a well-known procedure, is the practice of surgically altering the female genital organs for non-medical reasons and includes removal or pricking of the clitoris or labia majora, or narrowing of the vaginal orifice. FGM has had a long history of practice because of its grounding in historical and cultural traditions within some communities. While over 200 million females have been subject to the procedure worldwide, it may be surprising to find that it has been performed in Australia, with 53000 women having been subjected to FGM. The United Nations deems it a fundamental violation of the human rights of women, with some of the effects of the procedure being pain, shock, bleeding, bacterial infections as well as more long-term problems being lack of sexual pleasure, psychological problems, infertility and problems with childbirth, amongst other issues.

It is therefore a problem that is slowly gaining recognition in the Australian healthcare system. It is important for medical students to have an understanding of. We were lucky enough to have Khadija Gbla run a seminar about FGM earlier in the year. Khadija is a human rights activist that advocates particularly against racism and violence against women, having dedicated her life to educating people about it. Having experienced FGM herself, Khadija's passion for the topic was immediately felt. She pointed out the ability of FGM to make girls feel like their body is a commodity that can be traded and manipulated to the detriment of their health for the perceived benefit of society. Important to her speech was defining our role as medical students and future doctors in identifying girls that had or were about to undergo FGM.

For those interested in learning more, Khadija is the co-founder of the Desert Flower centre in Adelaide, alongside Dr Fariba Behnia. This organisation provides holistic medical care for survivors of FGM in Australia, offering reconstructive surgery for suffering women. To learn more about the organisation in general, or to read more about FGM, visit the Desert Flower Foundation website at *www.desertflowerfoundation.org.*

# REPRESENTATION OF WOMEN IN MEDICINE

**Alice Short & Vanshika Sinh**

*Fun fact:* at least half of all Australian medical graduates are female. Not so fun fact: by the time these graduates enter their fields of practise, only 32% of Australian specialists are women (and only 10% of surgeons!) (Table 1). The question is: Why? Well, with penalties associated with maternity/ parental leave, gender based pay differences are common challenges faced by women in both medical and non medical workplaces. Additionally, a US study demonstrated that whilst female medical students perform equally well at assessments when compared to their male counterparts, they consistently report reduced confidence about their performance and abilities. This hesitance may lead to less opportunities and slower development of experience (2). In programs such as surgery, where the foundations are based upon a male learning model, other learning and working styles are seemingly underappreciated despite equal competence.

*More not so fun facts:* did you know that there is still a pay gap between Australian male and female doctors? Male and female doctors begin their careers as financial equals - in 2016 there was no observable difference between starting salaries. Interestingly, as doctors progress further along their careers this seems to change. Here are some facts from the Workplace Gender Equality Agency

- there is a 33.6% pay gap between men and women for full time medical specialists
- there is a 24.7% pay gap among full time general practitioners
- even when these numbers are controlled for the number of hours worked, the annual gross earnings for female specialists and GPs are still 16.6% and 25% respectively

These statistics are a reminder that education is needed for medical students and doctors to help tackle the unconscious gender bias that remains in the workplace. As eager medical students, it is easy to quickly absorb the hierarchical medical culture that surrounds us. Entering hospitals and following our superiors, students are quick to learn that conformity and complacency are important for both academic and professional development.

**Medical practitioners registered in Australia at 28 February 2015 by specialty, and proportions by sex**

| Specialty | Total number | Proportion | |
|---|---|---|---|
| | | Female | Male |
| Addiction medicine | 165 | 24% | 76% |
| Anaesthesia | 4 579 | 28% | 72% |
| Dermatology | 504 | 44% | 56% |
| Emergency medicine | 1 649 | 32% | 68% |
| General practice | 23 759 | 40% | 60% |
| Intensive care medicine | 808 | 16% | 84% |
| Medical administration | 329 | 32% | 68% |
| Obstetrics and gynaecology | 1 834 | 40% | 60% |
| Occupational and environmental medicine | 301 | 17% | 83% |
| Ophthalmology | 951 | 20% | 80% |
| Paediatrics and child health | 2 408 | 46% | 54% |
| Pain medicine | 251 | 22% | 78% |
| Palliative medicine | 293 | 55% | 45% |
| Pathology | 1 985 | 39% | 61% |
| Physician | 9 325 | 27% | 73% |
| Psychiatry | 3 385 | 38% | 62% |
| Public health medicine | 432 | 39% | 61% |
| Radiation oncology | 361 | 40% | 60% |
| Radiology | 2 255 | 24% | 76% |
| Rehabilitation medicine | 468 | 42% | 58% |
| Sexual health medicine | 116 | 55% | 45% |
| Sport and exercise medicine | 119 | 22% | 78% |
| Surgery | 5 507 | 10% | 90% |
| **Total** | **61 784** | **33%** | **67%** |

Source: Australian Health Practitioner Regulation Agency's Public Register of Medical Practitioners.

[Table sourced from Walton, M.M. (1)]

An Australian study highlighted that the legalistic framework in place for managing complaints in hospitals plays a strong role in the reluctance for medical students and doctors to report misbehaviour (4).

*What to do?*

As medical students, it is our role to challenge the prevailing beliefs held within the medical structure. Targeted and transparent education with the establishment of zero tolerance policies for bullying and harassment. However, policy alone will not change anything. The change must be accompanied by the strong action by university representatives. Surgery is a specialty that is consistently underrepresented by women. One reason for this may be due to the culture and limited flexibility of commitment required. Implementing a range of models for medical training programs such as flexible job sharing (which some hospitals have implemented) may broaden the scope of applicants, both female and male. Due to the gender imbalance in surgery, women are less likely to meet female surgical role models and are more likely to experience gender based discrimination throughout their training.

(1) Walton, M.M., Sexual equality, discrimination and harassment in medicine: it's time to act. Med J Aust, 2015. 203(4): p. 167-9]
(2) Blanch DC, Hall JA, Roter DL, Frankel RM. Medical student gender and issues of confidence. Patient Educ Couns 2008; 72: 374-381.
(3)Workplace Gender Equality Agency, WGEA Data Explorer 2018 https://data.wgea.gov.au/overview
(4) Faunce T, Boslin SN, Chan WP. Supporting whistle blowers in academic medicine: training and respecting the courage of professional conscience. J Med Ethics 2004; 30: 40-43.

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# CHAINSAW

**Sidharth Nambiar MD1**

Did you know the chainsaw was invented to help with PREGNANCIES? Yes, you read that right! In around the 1780s, two Scottish doctors created the device, which is now an iconic tool in the hands of a movie mass-murder or, well, a lumberjack. They created the chainsaw to use during a procedure called a 'symphysiotomy' in which the mother's pelvic bones were cut to remove the baby; this was performed instead of a caesarean which was considered as less safe at the time. Eventually someone realised that sawing through a woman's pelvis wasn't the best idea (magicians would disagree), especially not to achieve the miracle of birth.

Anyway, what I am getting at is that medicine has always been at the forefront of technology - they have almost gone hand-in-hand. As technology around us improves, so does medical practice, making a doctor's life easier. Think about it, the sonar resulted in the creation of ultrasound scanner while the understanding of radioactivity and nuclear physics led to the advent of nuclear medicine, and understanding fibre optics and refraction resulted in the invention of the flexible endoscope. Yet, there is a growing fear. At the rate with which technology is growing these days will I, hopefully a future doctor, be replaced? Every time I see a video of a surgery perfectly performed by modern robotics or when I read about some new artificial intelligence (AI) predicting a diagnosis X% better than a doctor, I become nervous. I'll give you an example. Recently Google published a paper about an AI powered eye scanner, which not just accurately diagnosed glaucoma but was able to predict cardiovascular risk of the patient based on the image of the eye. The eye scanner was also developed with a simple 'plug and play' design so that anyone could use it. The AI had studied over 300,000 cases and based on that database learnt to make a diagnosis. This is an incredible feat of technology and a truly remarkable achievement that allows the untrained to accurately diagnose complex problems, and yet this added to my fears. Will medicine be the next industry to be taken over by the storm of automation?

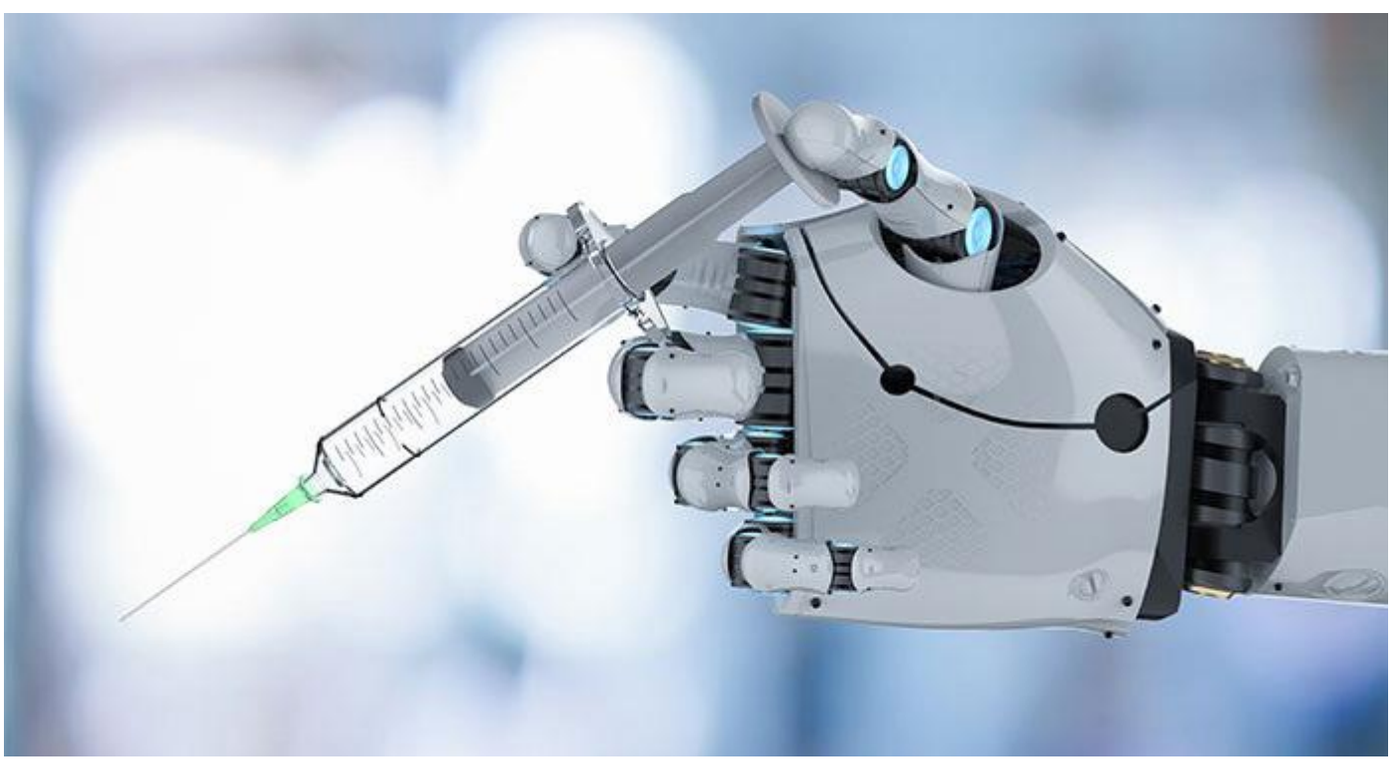
The short answer is no and here is why. Medicine has always been a very dynamic and constantly evolving discipline. The reality is, the fear of machines

replacing humans has always existed but it's a very short-sighted way of looking at things. Whenever technology has replaced certain skill sets, it has given back by opening a myriad of other avenues. The key is adaptability. The more you are willing to learn and change, the more likely you are to be successful. The future is embracing all the tools we have at our disposal.

Google has created this machine learning AI called 'Alpha Go' to play the Chinese game 'Go'. This game was long considered one that requires an innate instinct that could never be taught. The software basically analysed millions of games of Go played by humans and learned how to play. It was then allowed to play humans and the results were astounding; it beat 60 professional players 60:0 and then beat the world's best Go player, Lee Sedol, 4:1. Google then took it one step further, it created a software 'Alpha Go Zero' which essentially played against itself and started creating its own moves. When this new technology, which played with self-created moves, against the old one, which learnt from humans, it beat the old version 100:0. So, it essentially showed us that humans may have been playing this game for the last 2,500 years...wrong. The reason I highlight this particular technology is because it could have a vast influence in the field of medicine. If you look at cancer research, every day we find new markers, novel treatments, new risk factors, and yet millions continue to suffer and die. All this information and knowledge doesn't seem to efficiently translate into a real-world application. But with technology like this we may create the paradigm-shifting dive medicine needs for the future. If we put all the medical discoveries and findings together, we could potentially rethink patterns, create new pathways, and understand information previously too vast for humans to have comprehended.

Lastly, we should never forget that medicine is not about the disease, it's about the people. At the end of the day it's more than just what's wrong and how to treat it, a major part of the process is the bond you will share with your patient. The human state is such a complex and beautiful amalgamation of our experiences, emotions, and imagination that no computer will be quite able to understand. A mother risking her life in the surgery room to save the life of her unborn foetus, in spite of doctors' advice, or helping a man come to terms with his terminal illness are interactions no AI will be able to replicate. This is why YOU as a Doctor will not be quite replaced,

for now...



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# GIVING BACK



## DAFFODIL DAY

**Elle Robertson MD2**
**FMSS Community Director**

Every August, the Cancer Council Daffodil Day Appeal is held in sites across Australia as an opportunity to engage local communities, involve people in the Cancer Council mission and provide a way for people to donate to important cancer research. Sadly, cancer remains highly prevalent in our society and the harsh reality is that 27 South Australians are diagnosed with cancer every day. An iconic and adored fundraising drive, Daffodil Day sends a powerful message of hope to anyone and everyone affected by cancer.

With the help of student volunteers, FMSS ran a Daffodil Day stall in Flinders Medical Centre (FMC) and contributed to the sea of yellow in the community on August 23rd. With the support of the generous public, FMC staff and students, we raised over $1440 in just 5 hours! All of these funds go towards funding research projects to support people affected by cancer and improve the health of future generations. Our ongoing involvement with the Cancer Council Daffodil Day Appeal continues to help raise much-needed funds to support cancer research and, ultimately, support better outcomes in prevention, diagnosis, treatment and survivorship of cancer. Our organisation of a volunteer site helps to raise awareness and gives community members an opportunity to make a difference which, in itself, is quite empowering.

# AN UPDATE FROM YOUR MENTAL HEALTH AND WELLBEING TEAM

**Tiani Pakos & James Killian MD1**
**FMSS Mental Health and Wellbeing Officers**

It has been an exciting year for the Health and Wellbeing team of FMSS in 2019. We have been involved in organising events such as Mental Health Month, MD1 vs MD2 Sports and Random Acts of Kindness Week.

In the month of May, we ran Mental Health Month which involved a variety of activities. This consisted of a bake sale which raised funds for Women's Safety Services SA, as well as the Mental Health Seminar and the MD1 vs MD2 Sports Night.

The Mental Health Seminar gave students the opportunity to hear their peers talk about their experiences with mental health in a comfortable and safe space. The aim of this event was to destigmatise mental health issues in medical students and promote students' understanding of the challenges some of their peers face. The night was a wholesome night filled with stories and support from the MD family.

The MD1 vs MD2 Sports Night was a fantastic evening of Basketball and Indoor Soccer at the Sturt Gym. Both sporting games drew a large crowd of medical students, their families and staff. The night was a great opportunity for year levels to mix with their future colleagues and to have fun together despite the (not so) subtle competition between year levels. The MD1s claimed victory against a previously unbeaten MD2 soccer team, and in response, the MD2 basketball team fought for a close win in the following basketball game. This night is traditionally highly anticipated and 2019 was no exception. Not only does the event provide an opportunity to have fun with peers, it is well suited in May, the Mental Health in Medicine month, as it allows students to take a break from study to exercise and enjoy work life balance in a busy semester.

Random Acts of Kindness Week (RAOK) was the perfect time to show some kind-heartedness and love to your friends and peers. This week has a fun turn and is done anonymously amongst your cohort. Once you sign up, you are paired randomly with your RAOK buddy and you spoil them however you like throughout that week. This week brings so many smiles throughout the university and is fun and uplifting. Remember, being kind is cool.

**Mental Health Tips**

Your Health and Wellbeing team want to remind you that it's okay to not be okay. Medical school presents a unique set of challenges and experiences which can, at times, be overwhelming. It can be stressful and demanding so ensure you take time out for yourself and find ways to relax. There is a wide variety of things you can do to improve your mental health. Many of these are commonly talked about - staying active, getting good sleep, eating well and having a good support network. These basic fundamentals are not to be overlooked but can be supplemented in a wide variety of ways that you may not have ever thought about! Below are just a couple of these we have thought of.

*Mindfulness meditation* is a type of meditation that aims to train you to be able to clearly identify the contents of your mind. The idea of this meditation is not to stop your thoughts but to be able to identify them as they arise so you can develop a better

understanding of how your mind works. Research into the benefits of mindfulness for medical students has shown an improvement in wellbeing, reduction in mood disturbances, improvement in dealing with stress and increased empathy levels. Mindfulness has also been shown to be successful in improving focus and study efficiency. If you are interested in trying mindfulness meditation, Flinders University runs a 'Mindfulness for Academic Success' program that consists of five 60 minute sessions. Alternatively, there are many free apps available such as Insight Timer and Smiling Mind.

*Getting out in nature* has been shown to positively affect the physical and mental health of most people. It has been found that as little as five minutes in nature can improve mood, self-esteem and motivation. Furthermore, it has long been known that sunlight can improve the symptoms of depression, especially that of seasonal affective disorder. There has even been some research into using houseplants as an alternative form of ecotherapy, a treatment that suggests that being in the presence of flowers and plants can increase wellbeing and productivity for students. Just another excuse to buy that house plant you want!

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# BAREFOOT BOWLS

**Ysabella Tyllis MD2**
**FCCS President**

This year, the FCCS team decided to reignite the old lawn bowls flame that our committee started during our inaugural year in 2017. The sun was shining (sort of), the lawn was greening, Rod's Yiros Meat was cooking, and the Brighton Bowls Club was getting ready for our members to battle it out for bragging rights as the Best Lawn Bowler in Flinders Medicine. We saw members don their best bowling whites – with one player even showing off some very (un)realistic Bowls SA medals – and received a surprise celebrity visit from Port Adelaide's Hamish Hartlett. When the rain got a little too heavy to keep bowling, everyone retreated to eat some of the best home-marinated yiros we've ever tasted, which was so good, 2 trays went out as 1st and 3rd prize in the afternoon's raffle. The day finished with a best-dressed announcement and a fundraising raffle which put the day's fundraising total at $300, and our yearly total at over $1000 towards our ECG machine for Muhumbili Hospital in Tanzania.

Thank you to everyone who got involved and donated some money, and a big thank you to Howard's Vineyard for kindly donating the wine used in our fundraising raffle.

# A LOOK INTO THE GLOBAL HEALTH SHORT COURSE

**Dan Ring & Ella Cockburn MD4**
**HHRG Co-Presidents**

In a never-before-seen collaboration, HHRG with their Adelaide University counterpart, Insight, teamed up to deliver the Global Health Short Course. The aim: to give participants a broad look at all of the key global health issues affecting our health system. Think GHC, but smaller: only one day in a UN style lecture theatre, with Adelaide University.

The day covered a myriad of different topics. We heard about efforts overseas to improve the eye health of children in the developing world and the impact of the climate crisis on health. We learnt how to keep our own practice safe and inclusive, and learnt about the work done by community leaders in minority groups. We learned about the lived experience of the Stolen Generation, and the continuing disparities in health felt by Aboriginal people. We even got insight into how to provide healthcare for people who are homeless and the latest developments in queer health issues.

To the team at Insight, thank you for hosting and collaborating on such an amazing project which hopefully we will see continuing on for years to come. Catering was entirely vegan as provided by Levant in our efforts to make the event as sustainable as possible. A huge thank you has to go out to our fantastic HHRG committee, who organised a break out session. Special thanks to our Events team who put in a lot of hard work and last minute run arounds to get this inaugural event off the ground.

# SOCIAL



# AMSA CONVENTION 2019

**Leah Moffat MD2**
**FMSS AMSA Representative**

From the 7th to 13th of July this year, I was one of the seven eager Flinders students to head down to Hobart, Tasmania, to attend the 60th AMSA National Convention along with 700 other medical students from across the country; and boy what a week we had! The week featured 4 jam-packed academic days, 1 sports day with an emergency medical challenge, 4 remarkable social nights, all topped off with one spectacular Gala Ball.

We were lucky enough to experience inspiring and motivating plenary lectures by former Greens leader, Bob Brown, pioneer neurosurgeon, Prof Charlie Teo, stem cell researcher and 2017 Australian of the Year, Prof Alan Mackay-Sim, co-founding director of The Fred Hollows Foundation, Gabi Hollows, and of course the clinical skills legend Prof Nicholas Talley. For many of us, the workshops were the highlight of the week and worth the 7:30am wake up after a big social night to sign up in time. They were all led by multiple consultants and registrars from across the country, considered experts in their disciplines. I am considering a future in O&G, so a personal favourite of mine was the workshop where I was able to insert a Mirena IUD into a simulation plastic vagina and uterus, as well as practice an endometrial pipelle biopsy on a papaya! MD3 Jon Winch's favourite was learning how to get intraosseous access, which involves drilling into the marrow of a bone to provide fluids or medications in emergency circumstances when IV access is not possible. We had the chance to use the spring-loaded bone injection gun, drill into plastic bones and then drill into a raw chicken leg and inject green saline to check we had adequately reached the venous circulation. Other workshops included learning how to ultrasound (such a great opportunity to get for free!), how to plaster, learning surgical tying and scalpel skills, yoga and even

how to brew kombucha. To get us outside and moving, there were field trips available to Bonorong Wildlife sanctuary to see those adorable little devils, Mount Wellington for some spectacular views, and the Aurora Australis in the harbour if you needed some icebreaker tips ;)

The sports day was in the middle of the week and featured games of basketball, dodgeball and futsal, along with the Brawniest Medical Student Challenge and Tug of War. We were also super excited to show off our brand-new sports uniform for the first time, soz but goodbye Stupid Sexy Flinders, you have served us well. For the day, we were paired up in a team with the rowdy bunch from Adelaide Uni, but we weren't much help to them at all because 6 of our 7 delegates were taking part in the Emergency Medical Challenge (EMC) instead, and our remaining member MD3 Cameron McKenzie was sound asleep in bed for half the day. The EMC was another one of the highlights from the week. We were tasked with assessing and managing SPs in 8 emergency situation stations, each within 8 minutes, while being marked by ED consultants and registrars. Some scenarios included a patient with 30% burns after a campfire explosion, a shark attack victim, a vaginal delivery in a forest, and a drug-induced psychotic patient. Even with HALF of our team being preclinical and only one of us being MD4 (ty Sam Newbery), we managed to come away with 6th place out of 20 universities! Massive thanks must also go to MD3 and nurse David White for carrying the preclin team members <3

As expected, Convention's themed social nights were the highlight of 2019 for many of us. The first night helped warm us up as we went 'Into the Fires Below' dressed as dragons, devils and ~Cardinal George Pell~. We went back to school for 'Playmates and Childhood Greats' dressed as Wiggles, Alice in Wonderland with MD1 Jayda Jung as a White Rabbit, and MD1 Sharon Hui as the Queen of Hearts. We dressed as Marilyn Monroe, Princess Leia and Wonder Woman for 'Queens of the Screen'. We had an a m a z i n g social night at MONA, the Museum of Old and New Art, where we dressed as Roy Lichtenstein and Piet Mondrian art, statues of David, molecules and lab rats as part of the 'Art vs Science' theme. The 700 strong group of excitable medical students were let loose to explore the exhibits all night and miraculously not one piece was broken! To round off the week, there was a Winter Wonderland themed Gala Ball, which really suited the location because, let's be real, Hobart is more like Antarctica compared to the rest of Australia. The night was like a MedBall with a GH-secreting pituitary adenoma, with 70 tables, 3 course dinner and a 4-hour drinks package.


If you love meeting people and establishing invaluable relationships with like-minded students from across the country, listening to world renowned speakers, challenging yourself with sports, learning new practical skills (you'll pay thousands to do as a junior doctor), or love just having great nights dancing with your friends, Convention really does have something to suit everyone. No matter what your interest is within medicine, I can guarantee that Convention will stimulate and inspire you for your future as a doctor. I can't wait to see you all at Melbourne 2020!

P.S. top hint: looks like Convention might be coming to little old Adelaide in the near future...


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HB19

# FLINDERS UNIVERSITY SURGICAL SOCIETY

## Women in Surgery
## Shalom Ndukwe MD1

Women in Surgery 2019 was fun, informative and interactive. The submitted questions and conversational style discussion facilitated a safe environment to ask the hard questions. The panel of eight, influential, female surgeons, operating across various sub-specialties, left us both inspired and challenged by their personal experiences. They discussed what makes a surgical career so rewarding, practical tips for getting into surgical training, issues around discrimination and sexism, the subsequent advocacy for growth and change within the field, and everything in-between.

FUSS was delighted to hear that WIS made a career in surgery seem more tangible for many who attended; particularly for those women who anticipate starting a family, alongside their surgical endeavours. A big thank you to everyone who came along and made the event possible. I hope everyone is excited for WIS 2020!

## Scrub Crawl
## Nick Smoker MD1

ScrubCrawl 2019 saw an enthusiastic group of medical students get together and enjoy a night out on the town. With the largest turnout the crawl has seen in many years, students from Adelaide University and Flinders University united in a tour of Adelaide's larger venues to drink, dance and party the night away. West Oak kicked us off with a wild boat racing battle between Adelaide and Flinders MD1 and MD2. Next, was the Woolshed, filled with classic tracks that filled the dance floor and the iconic bull, which saw many MD's attempt and fail. After that, Black Bull, which saw huge upstairs vibes. Finally, Dog and Duck to finish, a rooftop to remember. A few taxis were called, plenty of jugs were finished, vodka and sodas were spilled, but most of all, fun was had. The Flinders University Surgical Society would like to thank everyone for coming and enjoying themselves, we can't wait to see you again next year for an even bigger party!

## FUSS Academics
## Alen Pasalic MD1

FUSS' Academic Team focused this year on providing students with both practical and theoretical events that highlighted the surgical field. Our annual Suture Night, led by Dr. Alexa Potter, taught students fundamental surgical skills. Our Expert Anatomy nights highlighted the underlying surgical/anatomical complexities within cardiology, pulmonology and neurosurgery. Moving forward, FUSS' Academic Team is focused on broadening their teaching approach to improve student-directed education across the entire degree – this will hopefully include the introduction of anatomy peer-teaching, PT-style workshops and RACS-focused education events. We are incredibly proud of the events we provided students with and are looking forward to the changes coming in 2020.


7:00 West Oak
Woolshed
10:00 Black Bull
11:30 Dog and Duc


JIM BEAM
SINCE
1795


7:00 West
8:30 Wool(s
10:00 Blac
1:30


LADIES
TOILETS
7:00 West Oak
8:30 Wolfshead
10:00 Jack Bull
11:30 Jog and Duck

# WRIGHT EVANS MEDBALL 2019: MASQUERADE BALL

**Grace Berwald & Jemima Staude MD2**
**FMSS Social Directors**

Picture this: you're in a room that's dripping with gold, the organ is so grand that even a 3 legged cat could make music Motzart would be jealous of, and every time you think you're about to run out of champagne, someone fills it up before you can say "bar?". All your pals are dressed to the nines, the food is simply exquisite and melt in your mouth good, laughter just keeps flowing and you begin to wonder if there's something in the air or if you're literally just having that much of a good time. Now close your eyes and imagine all that and more and you're seeing the biggest and best (if we do say so ourselves) MedBall in history, the Wright Evans Masquerade Ball 2019.

Our wildest dreams could not have come close to meeting the decadence and elegance that the Adelaide Town Hall mustered for the evening (waddup marble staircases). If you'd forgotten for a second that you're a struggling medical student (like that would ever happen) you could have been fooled into thinking you were at the Met Gala, but with worse dancing and better company. Not to mention the exceptional grace and beauty that you, the guests for the night, brought to the evening. Never have we seen such a classy looking bunch of people gathered in one place! Special mention to Kritika Mishra (MD1) and Alex Wells (MD2) who came away with best dressed for the evening. Pro-tip for MedBall next year: if you commit so hard to the theme that you paint it on your face, people will notice and praise you accordingly.

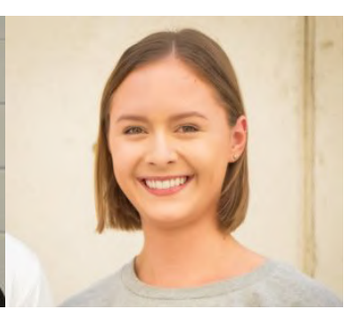
We think that the dance floor filling up before the main course had even been served, and the fact that we collectively broke the record for the number of glasses broken at a Town Hall event (yes, we even beat Adelaide Uni) speaks for itself. For those who just kept chasing those high class, elegant, gold organ, marble staircase vibes, there was the afterparty at Zhivvies. They actually stopped closing down to have us for the evening (kidding, that was just a rumour) and it was the perfect way to end the evening (we think, but can't quite remember).

Of course, we couldn't have organised this night alone. A massive thank you Wright Evans, our major sponsor for the night. We're not even joking when we say we couldn't have done this event without you. We were lucky to have so much support when organising this event, which would not have been possible without the FMSS Executive Committee backing us up every step of the way and for giving us the opportunity to throw an event that everyone could enjoy. A huge thank you to Simon and Elise for being everything we could ever want in Social Officers. A special thank you to the FMSS Marketing Officers for all their hard work and for creating the beautiful posters. Thank you to the wonderful centrepiece team for making the most extra centrepieces in MedBall history (plus another thank you to everyone for not stealing the feathers x). Thank you to Sally and Seb for filling the evening with nothing but the best beats to boogie to. Lastly, thank you to the Adelaide Town Hall for making our MedBall dreams come true.

It has been a pleasure being your Social Directors for 2019, and we hope we did you proud!

As always,

Love Social x
Jemima and Grace

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Lectrum

# FMSS MEDREVUE 2019: FANTASTIC DEANS AND WHERE TO FIND THEM

**Samuel Eade MD2**
**FMSS MedRevue Director**

MedRevue 2019. What a journey. We started the year very late by normal standards. It was a tough slog to bring it all together. Normally, the show itself is written during the summer break by an assembled team of writers and is on track to be completed by February. This year we didn't start writing until February. And even then it was the beginning of the pitch meeting. We could have taken the show in many directions, but who could ever forgive themselves if they were to never pick Harry Potter.

The year progressed slowly, not having our first rehearsal until July. Considering the show was scheduled to be in October, we had a hell of a task ahead of us. And time ticked away faster and faster as the months went by. After many tears and meltdowns from the executive team (sorry, Minjoo), a heroic effort by the cast and crew and a characteristic determination only found in the hearts of overstressed and overworked medical students, a show was born. Countless hours were sunk into the project and within a matter of 11 weeks, Fantastic Deans and Where to Find Them opened the curtains at Marion Cultural Centre.

The cast and crew did an amazing job and nothing would have worked without their resolve. I am incredibly proud of everyone who was involved. Although I had been wishing for it to end throughout the year, as many of my peers would have heard, once it finally did, it was a bittersweet end. Was it a challenge? Yes. Was it worth it? Only the audience could answer that. Would I do it all over again? Absolutely.

And what else is there to say? Just one more thing.

Mischief managed.


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