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Volume 3 Issue 1 - May 2016

Austin General Surgery Training Newsletter
One Score & Four Months
Laminas celebrates its second Birthday

It seems like yesterday when the Austin Surgical Trainees Education Committee (ASTEC) was formally established. Along with the inception of ASTEC came the idea of a surgical newsletter for the Austin Hub. With the current issue we now celebrate the second anniversary of the launch of Laminas. It is perhaps time to reflect on what it may have achieved.

The original drive for developing a newsletter was based on the fact that we had approximately 46 SET and NSET trainees in General Surgery attached to the Austin training hub. The large number of regional rotations for both SET and NSET trainees and the fact that NSET trainees spend six months of their year on night cover or relief rosters means that many trainees did not meet each other for prolonged periods. It was felt that a formal newsletter would allow trainees to be introduced to each other and their supervising surgeons. In addition it was to be a source by which changes to training regulations, selection criteria and other matters from the Board in General Surgery could be shared.

Another aim was to have the trainees write descriptive articles on each of the specific units that form part of Austin’s General Surgery training. These would hopefully find their way in to a separate document in the future as a resource for future trainees.

The ulterior motive behind the newsletter was however, to try and develop a stronger identity for the community of surgical trainees that was already evolving albeit in a nascent state. We had hoped that it would be the flagship on which the spirit of Austin General Surgical Training would sail on, gathering momentum each year and attracting the best and the brightest from across Australia.

Early plans included a simple quarterly newsletter of 4-8 pages which was felt to be adequate to encompass the administrative information on training and a few articles of interest. An editorial team was formed consisting predominantly of trainees who would spearhead various articles. We also felt that some historical aspects should be researched and shared such as the history of the Department of Surgery, Austin Hospital and Repatriation Hospital as well as the people who worked there.

As the content for the first edition was being collated it became abundantly clear that 4-8 pages would not suffice. Based on the available content for the first issue and the planned articles for the subsequent ones it was unanimously agreed to convert the newsletter in to a quarterly E-Zine of 20 - 28 pages as may be the case. The rest is of course history and two years after the release of the first issue we can look back and see that it has indeed helped create an identity for General Surgery training. It is perhaps worth looking at some of the specific sections that constitute the bulk of the content for Laminas.

Sands of Time has continued to bring about lost knowledge about the origins of the Department of Surgery and interesting developments of the time. Apart from the first issue article on Howard Eddey, Early plans included a simple quarterly newsletter of 4-8 pages which was felt to be adequate to encompass the administrative information on training and a few articles of interest. An editorial team was formed consisting predominantly of trainees who would spearhead various articles. We also felt that some historical aspects should be researched and shared such as the history of the Department of Surgery, Austin Hospital and Repatriation Hospital as well as the people who worked there.

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Sands of Time has continued to bring about lost knowledge about the origins of the Department of Surgery and interesting developments of the time. Apart from the first issue article on Howard Eddey,
the foundation professor of surgery all others have been written by those who were in the Department at some time or the other. Professors Gabriel Kune, Hamish Ewing, David Fletcher and Graeme Thompson have shared with us insights in to the department. Others may well follow in future editions.

Not to be outdone by the senior surgeons our trainees have taken the lead in Halls of Learning where we continue to build a broad picture of the various training units and posts both accredited and non-accredited. These will hopefully become part of an Austin Surgical Training Book in the future.

People, both trainees, surgeons and their families are the most important ingredients of any successful training program. In Newblood and Val Dicere we have introduced new comers and farewelled those leaving us which links in with our plans for an Austin General Surgery Alumni.

Training Corner has continued to allow us to highlight various aspects of our training program, share insights in to changing regulations and attempt to explain the unexplainable.

There are two areas that are worthy of noting as major achievements for Laminas. The first was the ANZAC edition in May 2015. This highlighted the 100th anniversary of the Gallipoli landings as well as featuring surgeons and trainees in the three branches of the armed forces. The second was on the experiences of female surgeons on their training and subsequent career. This complex matter straddled the two issues in August and November 2015 with a number of female surgeons and trainees penning their thoughts on the matter.

The development and maturation of Laminas has paralleled the same process within ASTEC. The committee has expanded to have wide representation including HMOs, NSETs and SET trainees. It has, over the two years developed its own regulations and appointed a chairman and deputy chair. This includes representation for HMOs, NSET and SET trainees as well as the convenors of the education program. In addition an ex-Austin trainee has the responsibility to develop the Austin Surgical Alumni.

The distribution list for Laminas has also grown to include surgeons and trainees at all training posts linked to the Austin hub, all prior contributors, all Austin surgical HMOs, interns and the student surgical societies. In addition, commencing in 2016 it has also been released to all graduating Austin General Surgery trainees from 2004 even if no longer attached to Austin Health hence dove-tailing nicely in to the development of the Austin General Surgery Trainees Alumni.

Finally in celebrating two years of publications we present to you a few new sections for your reading pleasure. First is the “Spotlight on Research” which will include articles written by trainees on their personal experience and journey while undertaking research be it part time, full time, lab based or clinical. David Liu starts the ball rolling in this issue with his experience during his PhD at Peter MacCallum Cancer Centre.

The next new feature is “Recce Report” which describes one of the seven other hubs in Victoria that deliver surgical training through the eyes of ex-Austin trainees currently allocated to those hubs. Given the large number of NSET posts at Austin and our continuing success in getting trainees in to General Surgery SET we now have trainees situated in all the other hubs. Understanding the strengths of our counterparts will allow us to improve the program at Austin and also provide insights to future trainees in selecting appropriate training hubs.

The million dollar question however is whether the experiment has been a success. We believe it is still too early to tell but the response by trainees and surgeons in providing the requested content, the exposure of the hidden literary talents, the parallel development of the ASTEC and the Alumni are all positive factors which can only bode well for the future of Laminas. An online survey of all recipients of Laminas resulted in an overwhelming 84% supporting its continued existence. The most negative comments were related to the E-Zine being too big with the suggestion to reduce the size of the articles. We believe it’s time for another survey of the readership and hope that you will all share your views on the current state and future direction for Laminas.
Sunrise in the South West
South West Regional Hub

It felt as if like yesterday when I sat down in A/Professor Muralidharan’s office discussing about my future after knowing I got onto SET. In short, the gist of the meeting was that it’s probably time to leave the mothership and “see the world.” After all, it was impressed upon me that the world does not revolve around the Austin and it will be good to experience change, on the premise if things don’t work out I could still aim to transfer hub the following year.

As to how I ended up in Geelong depended on a few chance events and also the fact that I got partially “conned.” Post SET offer, multiple emails were sent to various Victorian hub supervisors. Only Geelong replied back to me promptly and I was fortunate to meet up with Professor Glenn Guest, Geelong’s SET supervisor. The first meeting went well and I felt adequately supported and he seemed genuine enough to care about trainees’ welfare and did kind of remind me of Mr. Muralidharan (albeit with a better sense of humour/wit). Maybe it was the fact that I was offered a tour of the hospital in that first meeting or the fact that most of my Austin mentors had positive comments about Geelong but in my foolishness, I did sign up too quickly to Geelong after being told “We have never had anyone fail the Surgical fellowship exams” and not realizing that the hub is new and that NO ONE has actually sat the fellowship exams!

Fast forward two years now and I am a SET 2 trainee in the Southwest Regional Hub (SWRH) or more colloquially known as the Geelong hub. It does mean a lot to me knowing the Austin SET supervisor/Chair of Victorian training committee/almighty boss has not forgotten about me and asked me to contribute to LAMINAS (or maybe there’s no one else that can be suckerised up to write an article!) Regardless, I thought it be a delight to write a piece for LAMINAS and remain in the professor’s “good books.”

The University Geelong Hospital is Victoria’s only tertiary center outside of Melbourne metropolitan area. It is also Victoria’s largest regional healthcare provider, with a catchment area spanning from Werribee all the way west to the South Australian border. The hospital itself consists of 406 acute beds and essentially provides services in everything except neurosurgery and organ transplant.

From a general surgical perspective, the hospital is serviced by 3 general surgical units notably surgical units 1 (UGI/HPB), 2 (breast), 3 (colorectal/endocrine), with a surgical fellow attached to each unit. Unlike the Austin where my experience was that the overwhelming majority of the bosses consider themselves subspecialist surgeons, what I have noticed that is a tad bit different here is that most surgeons here see themselves as first and foremost as a “general surgeon” with an interest in a “subspecialty.” It’s not surprising then to see a “HPB” surgeon doing colonoscopies or “colorectal” surgeons doing gall bladder surgeries.

I admit the hospital is not as “large” as the Austin. To give a bit of perspective, there are seven HPB surgeons and similar number of UGI surgeons at the Austin. The current unit that I am working for Surgical 1 (UGI/HPB), consists of 4 consultants, 2 generalists, 1 UGI and 1 HPB! That effectively puts me the “go to” person for anything UGI/HPB related.
My initial doubts were put to rest with regards to the presence of fellows but the volume of work is however high and there’s certainly enough to keep the registrars busy. Often even with the fellow around, there’s ample opportunities to be primary operating/assisting with the bosses. I don’t know how I scored it but I became the “wingman” for my bosses for Ivor Lewis oesophagectomies and pancreatic surgeries at a relatively “baby” level of SET 2. Exactly what I learned or did, that is still debatable. The UGI/HPB unit is further supported by 2 interns and 1 resident. Not sure what it’s like at the Austin but I don’t recall having any surgical residents in the general surgical units.

Compared with the Austin, I reckon the view at work in the surgical wards can be considered as a “plus.” The hospital itself is located just a few hundred meters from the bay and the waterfront view surely is a sight for sore eyes. I am pretty sure it does have its therapeutic effects on patients as well (and partially the reason I have difficulty discharging some of my long stayers!)

Despite being a regional hospital, there certainly are consultants who occupy the higher echelons of power within the college. While Austin may boast of having the former president of ANZHPBA or current chair of the Victorian training board, Geelong currently has one of its prized surgeons assuming the presidency of RACS which I am sure everyone knows to be Professor David Watters. These certainly have no doubt fuelled speculation that Geelong “rules” RACS by proxy but that’s unfortunately going to come to an end when Professor Watters retires later this year.
There are however some things I do perceive as negatives here. I find myself being in the minority when it comes to footy and the club I support. The whole hospital (or at the very least 99% of the cohort), all have an undying love for the Cats, something that got me on the wrong foot at the start of my rotation! I somehow have managed to remain alive and remain in the good books by somehow “agreeing to disagree” and channeling the mutual hatred we all have for Collingwood supporters. (Apologies to the Magpies readers out there) Guess the adage of “the enemy of my enemy is my friend” is very well applicable in this setting!

As a newly established hub still in its infancy (SWRH is only 4 years old), the educational program is not robust as the Austin. Weekly surgical tutorials do happen but we certainly don’t have a booklet or a yearly program as the Austin. (Enough said, in case my Geelong bosses get a hold of this piece)

Furthermore, Geelong is a hospital that provides O&G services, unlike the Austin that operates independently from Mercy. Theatre cases being bumped by Caesareans seem to be the norm (enough said)

The other thing I have to unfortunately give the thumbs down is the cafeteria. There certainly has limited choices and selections of food compared to Austin. The only consolation I get is that the hospital is a stone throw’s away from Geelong CBD. It’s not uncommon from time to time food gets delivered to the hospital by the local Asian restaurants for lunch or late night dinners during cover shifts!

For a health network that has no official ties with the Austin, I was quite surprised though to learn serendipitously that the links to the Austin are well and truly there. In my time here, I have come across names of many current Austin hub bosses who previously trained as registrars (The list includes LP Cheah, Caroline Baker, Eugene Ong, Anthony Hyett, Kiron Bhatia and more!).

What’s more even surprising, I work for a boss (Mr. Crowley) who trained the likes of Ms. Baker and Mr. Hyett. I can only hope I can be trained to be as excellent as my former Austin mentors. Only time will tell. Add to that, my current UGI surgeon (Mr. Matthew Leong) happens to be a trainee at the Austin hub! Seems to me Austin certainly is trying to dominate the world slowly by exporting its products beyond its own Heidelberg borders. We also recently welcomed the arrival of Mr. Siven Seevanayagam to Geelong who now heads the Department of Cardiothoracic Surgery.
I probably could continue to ramble on further but am aware of page limitations set by the LAMINAS editors. Perhaps I should save some other intricacies and secrets of Geelong hub for future editions. Add to the fact that this piece was written late midnight before the due date set by A/Professor Muralidharan with a glass of red at hand.

In short, through a twist of fates and by hook/crook I have ended up in Geelong. I have thoroughly enjoyed my time here and there are certainly no plans for any transfer of hubs. I may well be a Geelong trainee but at heart, I hope I still carry the Austin “spirit” within me. It pleases me to know I can continue remain part of the Austin community through LAMINAS. I do hope there will be future cross pollination and closer ties can be forged. Who knows? Maybe a rotation or two can be swapped between the two hubs or one off swaps from time to time.
From Student to Surgeon
A view from one of the first students at Austin Clinical School

The transformation of the Austin since October 1967 when the clinical school welcomed its first students has been profound. Most of the buildings have been replaced and the hospital has changed from a suburban general hospital known for its spinal unit and TB ward to a leading research based university center with an international reputation.

David Fletcher provided an insight into the development of surgery at the Austin from 1980 in the last edition of Laminas. This personal reflection covers an earlier period in the development of the Austin where I was privileged to be in the initial group of 16 students. We were not the most academically gifted group but we were adventurous and keen to take on the challenge of this new clinical school. It is quite different now with Austin being the preferred Clinical School for The University of Melbourne students.

The clinical school was established on a self-contained model and hence the university established Departments of Pathology and Microbiology at the Austin along with the traditional Departments of Medicine and Surgery, each having a professorial head.

The foundation clinical professors, Howard Eddey (Surgery), Austin Doyle (Medicine) both moved from the Royal Melbourne. Eddey was a senior surgeon at the RMH where he had been the Clinical Dean and also heavily involved in education with the College of Surgeons. Doyle had been in the University Department at RMH and had a strong research background. They both attracted young clinicians and researchers of high calibre, many who went onto head departments and gain professorial appointments and were fundamental to the development of the clinical school and the transformation of the hospital.
Being such a small group gave us an enormous pool of patients to clerk and we also benefited from some teaching sessions at Repatriation General Hospital. We also benefited from the guidance of Jean Bright, secretary to successive Clinical Deans, who was a wonderful supporter and mother figure of the student group.

The teaching emphasized the need for taking a good history and examination with strong reliance on eliciting physical signs as there was limited imaging available by comparison to the present. Clinical diagnosis was all important but not always accurate! Plain x-rays and contrast studies including angiography, IVP, barium studies and myelograms were available but there was no ultrasound, CT, nuclear medicine or MRI. In 1971 Richard Smallwood began using a flexible gastroscope, and it was some time before the colonoscope appeared. Robin Smallwood, Director of Anaesthetics, established a 3 bed ICU in one of the surgical wards.

The student’s quarters were initially in the old medical superintendent’s house that is now the childcare centre. It was here that we also had our first practical classes in pathology and microbiology. Within twelve months the student’s quarters, clinical school offices, teaching and research laboratories along with the academic departments were located in the building that now serves as the Medi-Hotel.

Lectures were initially delivered in either a clinical room in or the patients lounge in “A” block (now demolished) where lectures relied on a blackboard. Within a few weeks lectures were held in lecture theatre of the Leslie Jenner Nurses Home (Mercy site) where there was a screen for slide projection!

Teaching was undertaken with great enthusiasm by both university and visiting staff in all clinical disciplines. Most mornings began with a necropsy session involving pathologists and clinicians. Professor Harold Attwood, a Scot with a keen sense of humour, led these sessions and had the ability to make pathology “live” and clinically relevant. Each of us assisted a pathologist perform a post mortem and prepare a report during our year of pathology year. Joan Schiavone, senior lecturer in Microbiology taught with passion, linking laboratory findings to clinical scenarios from her own experience.
Until the university department was established, with the exception of orthopaedics and thoracic surgery, the Austin was not regarded highly as a surgical hospital. Howard Eddey headed both the university department and the hospital Division of Surgery and was able to change that perception. John Royle and David Gillett were appointed as First Assistants in the department, both having experience of research in the UK with Peter Hart and Ken Hardy, Second Assistants. In later years John Royle developed the Vascular Surgical service, Peter Hart set up the Breast Unit and Ken Hardy succeeded Eddey as Professor of Surgery. David Gillett went to Concord Repatriation Hospital in Sydney and became Professor of Surgery.

The Department of Surgery took over the beds on “B” floor of Heidelberg House where the Olivia Newton John Centre is now situated. Eddey had a collection of pathology pots in the clinical room and these were used to assist teaching. Orthopaedics, neurosurgery, plastic surgery and ENT along with theatres were located in the 3KZ block where the neuroscience block now stands.

The department staff and visiting honorary staff were all enthusiastic teachers. Leading up to the finals exams Ken Hardy pushed us, setting and marking practice questions. We were welcomed into theatre and it was not unusual for us to be given the opportunity to scrub for cases as students.

Eddey’s interest and expertise was head and neck surgery and it was my good fortune to see him perform major head and neck cases including a Commando operation. His operative technique was meticulous.

Although John Royle was a vascular surgeon he had an interest in gastric secretion and had an active clinical research program examining gastrin and acid output. Acid production was the focus of the research into peptic ulceration – long before the discovery of H2 antagonists, PPI’s and H.pylori. Vagotomy and gastric resection were common procedures for chronic peptic ulceration and the associated complications. Ken Hardy had developed an interest in liver surgery whilst overseas and began looking at patterns of injury that occurred in road trauma.

Orthopaedic surgeon John Critchley along with members of his unit provided excellent teaching in outpatients. One of his tutorials in July 1969 was cut short as we went to the ward and watched Neil Armstrong take those first steps on the moon. Critchely said “I’m not going to miss this for anything.”

In October 1970 Douglas Berryman turned up late for the orthopaedic clinic and apologized to Critchley explaining he had been dealing with emergencies from the collapse of the Westgate Bridge.

Initially the library was rudimentary but gradually that changed and eventually when the Lance Townsend building opened so did the current library. Zeltner Hall was run down and used as a linen store and in the staff cafeteria we could purchase a hearty 2 course meal for 30cents!

At the end of 1970, 15 of us sat finals passed and graduated. Hugh Taylor (later Professor of Ophthalmology, University of Melbourne) had taken a year out for B.Med.Sc. We did our intern year together and then scattered to various corners of the earth with some doing part of their postgraduate training at the Austin.

The pathway through surgical training has evolved for the better over the years with structured and coordinated teaching, and excellent course modules producing a well-informed surgeon. We experienced a simple pathway: three years of resident posts as basic training, passing the Primary (examination in anatomy, physiology and pathology) and then getting a registrar appointment at a hospital with college accredited posts. The Fellowship exam could be taken in the third or fourth year of advanced training and the fourth year be spent at an approved post overseas. Regrettably there were no opportunities or encouragement for research or even attending the College meeting prior to Fellowship. Interaction with the College was limited to exams and pre-examination courses and fortunately there were none of the expensive fees required of current trainees. Periodic assessment and feedback was limited other than being reappointed!

After venturing off to Papua New Guinea, I returned to the Austin for two six month terms as a general surgical registrar on rotation from PANCH (Preston and Northcote Community Hospital). At the Austin there was a weekly “journal club” with registrars reviewing the literature on a given topic. Sourcing relevant articles was laborious using Index Medicus, an annual publication of medical literature so different to the current Medline database. However the exercise was valuable and such reviews provided a solid foundation of knowledge.

The weekly clinical conference was a very valuable learning exercise valued by my cohort of registrars, who would present a case and then be subjected
to questions from the consultants present. Andrew Roberts and Mal Douglas made this a challenging experience, but wonderful preparation for the Fellowship exam. The College coordinated a series of evening tutorials around metropolitan hospitals, of variable standard but our own small study group and obliging consultants were valuable in the lead up to the examination.

There was an expectation of going overseas after passing the Fellowship to gain operative experience and for those with keen to pursue an academic career, arrange a research post. Operative experience as a registrar was significantly affected by the insurance rate of 70% that existed prior to the introduction of Medicare and the shorter time in training. Going to a busy UK hospital was the solution for this lack of experience. John Royle had forged a link with Bruce Pender at Chelmsford and Essex Hospital and a generation of Austin trainees were able to spend a year there as part of their post-Fellowship training. Most spent two or three years away in UK with some also going to the USA.

During my years as a registrar at the Austin there were four general surgical units each with a registrar and an additional general trainee registrar covered the thoracic unit. The units were "general" but special interests were developing. Strangely all of the units included a vascular surgeon and eventually John Royle established the vascular unit. Of interest is that Brian Buxton who had trained in cardiovascular surgery in USA, was initially appointed to the Austin as a general/vascular surgeon before later establishing the hospitals cardiac surgery service.

The focus of the university unit activity became hepatobiliary and upper GI when Ken Hardy succeeded Eddy and Malcolm Douglas was appointed. Malcolm also had an interest in endocrine surgery and he continued his interest in upper GI and endocrine surgery throughout his distinguished career. Jim Downie commenced bariatric surgery performing gastric stapling and Peter Hart was developing a breast service but there was no specialist colorectal surgeon until Andrew McLeish arrived late in the 70's.

There were no "safe hours" for trainees and registrars would be rostered for 24 hour shifts when receiving and continue on for the next day. At Austin it was a one in five roster but at PANCH one in three.

Following overseas experience others of my registrar contemporaries returned to the Austin as consultants: Gary Fell and Michael Hoare (vascular) and Steven Clarke (urology). Andy Forsyth (also initial student intake) became a cardiac surgeon and stayed on in the UK, John Hall was appointed Professor of Surgery in Perth and Don McCrae established a rural practice in Colac. Having been appointed to the Austin as a consultant general surgeon, I was fortunate to work alongside Mal Douglas from 1981-1994 and benefit from his knowledge, wisdom and friendship. The remainder of my career was at Western Health where I had various clinical, teaching and administrative roles and tried to emulate my Austin mentors. It has been interesting to be part of a similar process of transformation that occurred of the Austin.

Nearly fifty years since I began my student days I am proud to be an Austin alumnus.
Congratulations to the Austin General Surgery Trainees Katharine Guggenheimer who sat the exam in Auckland and Luke Bradshaw and Chon Hann Liew who faced their daemons in Brisbane.

A special mention must be made of Katharine who felt she was quite lucky leading up to the exam. Quoting her own words “I think I’m quite lucky in general as I haven’t died after falling down a mountain, getting hit by a car and bleeding to a Hb 70 before climbing a 4000m volcano.” That was however before she ruptured her Achilles tendon and hobbled her way through the exam while managing to lose her passport and needing an emergency one to travel to New Zealand. Well done Kath!

Breaking with tradition we also felicitate David Goh passing his Vascular FRACS exam. David is in the unusual position of having completed his FRACS General exam and then continuing to train in vascular surgery. Despite being a vascular trainee we have adopted him as an Austin General Surgery FRACS. He will share his views on the long road in a forthcoming issue of Laminas.
The Austin Surgery Education Program includes a number of simulation workshops aimed at Junior SET and NSET registrars as well as surgically inclined HMOs. In 2015 we formalised the process into four separate workshops: Colonoscopy, Bowel Anastomosis, Laparoscopic Suturing and Laparoscopic Inguinal Hernia workshops.

Despite the overwhelming evidence regarding the value of simulation based training simulations have made little inroads into mainstream General Surgical training. Chief amongst the many factors that have impacted on this is the large number of trainees and the difficulty in delivering such training to all across the nation.

Colonoscopy lends itself to having a simulation based foundation as there are a number of specific techniques that can be modelled in a simulation.

The State Endoscopy Training Centre is based at Austin Health with an established simulation and training program for Nurse Endoscopy trainees. The enthusiasm that Sylvia Constantinou, Manager SETC, exudes is infectious and is the main reason for the workshop being a part of Surgical Training at Austin.

The workshop was conducted for the second year running aimed at NSET, Junior SET and Surgical HMOs and will be a permanent feature for the near future. A novelty for 2016 was that a member of the Austin Surgical Trainees Education Committee (ASTEC), Ben Birch was formally assigned to co-ordinate and convene the workshops as part of the process of trainees taking over leadership of their own learning.

Rhys Vaughan, Phil Smart, Sylvia Constantinou and Ben Birch delivered what appears to be an exceptionally well-received program.
Training for Trauma
Alfred Trauma Unit

Does the thought of a trauma call out make your heart race, a drip of sweat run down your back or make you fear that you are the least useful person in the emergency department assessing a potentially critically ill patient?

Being the ‘Trauma Registrar’ at the Alfred helps put your place in the scenario in context. As the ‘Trauma Registrar’ assessing a patient who has suffered physical trauma, you are the sentinel on the lookout for any and all injury that may have implications in both short term and long term treatment and recovery.

I had never before connected the fact that placing an octogenarian in a cervical collar is life threatening, even when treating a cervical injury. An inability to swallow and an increased aspiration risk created by the uncurling of their natural kyphosis puts them at a disadvantage when compared to the younger generation and through a combination of factors gives them a higher mortality than their younger counterparts.

The Trauma Unit:
Alfred Hospital is one of two Level 1 Trauma Centres in Victoria, with a catchment area encompassing the border of New South Wales and northern Tasmania. The hospital admits over 1200 severely injured patients and over 7000 non-major trauma patients each year. The Trauma unit includes ten consultants: Prof. Mark Fitzgerald (Director), Mr. Chris Atkin, Miss Kate Martin, Dr. Joseph Mathew, Mr. Charles Pilgrim, Mr. James Lee, Mr. Marty Smith, Dr. Helen Stergiou, Dr. JK Pui and Dr. Fran O’Keeffe. This term the junior staff team included a SET trainee, four pre-SET trainees, two advanced emergency trainees, four residents and two interns, and a Trauma Medical Registrar. The job is rotating shift work through days, nights and weekends. For the registrars, it is usually eight consecutive days of intense work and six days off (with on-call for sick leave). During the day, there are two registrars, whose roles are split between ‘Receiving/ICU’ and ‘Wards’.

The work day starts with a radiology meeting at 7:30 AM. Patients in ICU and those requiring orthopaedic input are discussed first to facilitate early theatre planning. Then other new patients and ward patients with new imaging are discussed. The meeting is concluded with a 15-minute compulsory and protected coffee break with the team before the start of a consultant led ward round. The receiving registrar leaves the ward round as necessary to attend new trauma calls and assess patients in the emergency department.

Receiving/ICU:
The receiving registrar takes calls from around the state (and sometimes interstate) regarding patients who have significant mechanism or multi-system injury which exceeds the local capability to manage the patient. The “Reception” that a trauma patient receives should follow EMST principles of primary survey and ABC as priorities and you are guided through this process by the senior Emergency Department staff.

To facilitate the simultaneous and timely acquisition of a trauma series of XRAYs without interrupting the flow of patient treatment, all staff in the Trauma Bays wear lead gowns under impermeable over-gowns.
After the primary survey is complete, your role as the trauma registrar is to make sure the patient has a comprehensive secondary survey prior leaving the trauma bay. Attention to detail is important as these patients can be critically injured but dislocated fingers and unnoticed occipital lacerations can have a great unnecessary subsequent morbidity if not addressed early. Judging when to place an intercostal catheter, arterial lines, rapid infusion lines or regular IV line or even take police bloods become topics you can discuss at length. Recognizing the sick patient from the information given to you on referral or even within the first few minutes of reception becomes easier with each patient you see.

Your role in ICU is to be a reminder that the patient is under the Trauma Unit. While the patients are mostly managed by ICU, details like when to feed, anti-coagulate, rescan and extubate are led by the Trauma Consultants who have the final word where there is conflict between clinical teams. Supportive trauma consultants make themselves available around the clock to help with decision-making when priorities seem to collide. You are always able to pick up a phone to seek clarification.

Ward Registrar:
As the Ward registrar, you coordinate a hard working team of residents and caring for more than 30 inpatients on your bed card with multi-system injury is not unusual. You are in constant discussions with all the other hospital teams, the surgeons on call and radiologists to get patients the care they need in the right order and in a timely fashion.

Managing ICCs, pseudo-obstruction secondary to pelvic haematoma, using ultrasound to aid and guide bedside diagnoses and sewing up multiple superficial lacerations are skills that you hone as they are all part and parcel of the job.

As modern management of trauma is trending towards increasingly less invasive approaches, the number of theatre cases requiring general surgical procedures is small. When you do take a patient to theatre, the cases are probably as you imagine - but in a controlled environment. Accounting for variation between surgeons, you are repeatedly exposed to 4 quadrant packing, systematic review of injuries and the management of both solid and hollow viscus injury.

**Highlights:**

I was all gowned up and ready to insert an ICC into a patient with a flail chest and large pneumothorax after a fall. The most disconcerting thing about it was that the patient wanted to sit upright in a tripod position! I actually contemplated negotiating the anatomy in that position just to bring them some relief (but thankfully I didn’t have to!)

The most memorable was the recovery of a person who was GCS 4 on arrival. At reception we realized they had injured almost everything from occiput to distal toe phalanges. I followed them to theatre where they had massive intra-abdominal injury treated as well. I cannot really describe how privileged I felt to see them sitting up in bed complaining about issues like hospital food and their stoma function - which made me realise how far modern trauma medicine has come. They had no idea what my involvement in their care to date had been and they probably never will. I still walked away from their bedside satisfied.

**Conclusion:**
The operating sessions are minimal, the hours are long and the work requires attention to detail and careful documentation - but the lessons learnt are unforgettable.
Hello fellow Austiners, my name is David Liu, SET3 Austin General Surgery trainee. I’m sure most of you wouldn’t recognise me as I’ve spend the last 3.5 years hidden in the bowels of Peter Mac (aka the new VCCC) chiselling away at what hopefully will become a PhD thesis in cell and molecular biology.

I like to firstly thank Murali for his kind invitation to write about my PhD journey and share with you my experiences of trading in the scalpel for pipettes, the patients for mice, and the operating room for the animal house. But first, I’ve been asked to tell you a little bit about myself and my career up to this point. I graduated from Melbourne University with a MBBS (Hons) and BMedSc in 2007, followed by internship and residency at the Royal Melbourne Hospital. I started SET training at the Austin in 2011, and after spending 3 short but inspiring months as a junior registrar with Surg3 at Austin, I was allowed to terrorize rural Australia (Bendigo and Hobart...sorry fellow Tasmanians, I did really enjoy my time in Hobart though!) before commencing my PhD at the Peter MacCallum Cancer Centre in 2013.
Why a PhD in the middle of training? For me, the decision to undertake postgraduate research was an easy one. I thoroughly enjoyed my undergraduate research year as a BMeds student in the laboratory of Prof. Terry O’Brien at the Royal Melbourne Hospital studying acquired limbic epileptogenesis using rat models. Terry is a world-renown epileptologist and a great scientist. He instilled in me as well as his numerous students, post-docs and colleagues the excitement of performing translational (clinically-driven basic science) research. By the end of my BMeds degree, I had already decided that one day I will return to explore lab arena in greater depths.

Practically speaking, for me, enrolling in a PhD was really a matter of when. This is where I believe having a mentor or a ‘go-to’ person really helps. By the time I had seriously re-contemplated the idea of undertaking a postgraduate degree, I was already accepted into General Surgery training.

At the time, I approached Prof. Bruce Mann (Breast surgeon, Royal Melbourne Hospital), Mr. Cuong Duong (Upper GI surgeon, Peter MacCallum Cancer Centre) and Murali for some advice regarding the best time to interrupt training for research. In my situation, their consensus was essentially as early as possible so that when I return to surgical training, I would’ve left myself plenty of time to regain momentum for the exit exams and beyond.

Why did I elect to do lab-based research at the Peter Mac? In the 1.5 years leading up to my PhD, I had spent considerable amount of time visiting laboratories and research institutes across Melbourne. These included The Royal Melbourne Hospital, The Walter and Eliza Hall Institute, The Ludwig Institute for Cancer Research, Austin Hospital, St Vincent’s Hospital and the Peter MacCallum Cancer Centre. Each had their own merits, but only Peter Mac, through Prof. Wayne Philips had an established Upper GI research lab. Having worked and thoroughly enjoyed my two upper GI rotations (at the Royal Melbourne and Austin Hospitals), I realised my interest lies in understanding upper GI cancers. So approaching Prof. Phillips at the Peter Mac was a natural decision for me.

What’s my research project about? The focus of my PhD has been to investigate novel therapeutic strategies to treat oesophageal adenocarcinoma using preclinical models.

Oesophageal adenocarcinoma is the predominant subtype in our society (oesophageal squamous cell carcinoma is the most prevalent subtype in Asian countries). Unlike many other malignancies, the incidence of oesophageal adenocarcinoma has risen 600% over the last 3 decades. It is in fact the most rapidly rising solid malignancy in Western society. This is partly due to the growing obesity epidemic, resulting in higher oesophageal reflux disease leading to Barrett’s metaplasia, a necessary precursor of oesophageal adenocarcinoma. Despite advances in diagnostics, surgical care, radiotherapy and systemic chemotherapy, the outcomes of patients with oesophageal adenocarcinoma remains very poor, with an overall five year survival rate under 20%. Even though oesophageal cancer is ranked 13th in males and 22nd in females for cancer incidence, it is the 6th most common cause of cancer-related deaths in Australia. Hence, effective and safe therapies for patients with oesophageal cancer are urgently needed.

Why a lab-based PhD? This is where I’m heavily biased by my positive undergraduate experiences as a BMeds student. Moreover, owing to recent advances in biotechnology I sincerely believe that we are in a privileged position to answer almost any clinically-driven questions we may have. And in doing so, we can significantly contribute to medical science and improve patient care.
Animal models are incredibly useful for preclinical drug testing. However, there is a sheer paucity of animal models for oesophageal adenocarcinoma. In addition, the commonly used cell line models of oesophageal adenocarcinoma are not representative of the current landscape in clinical practice. In particular, there are no models of metastatic disease (despite over 70% of patients present with loco-regional and distant metastasis), models of chemo resistance are limited (despite over 60% of patients either not responding to or relapse soon after chemotherapy), and most importantly, cell lines are clonal (derived from one cell) in nature, and do not reflect true tumour heterogeneity. Therefore, in order to effectively translate preclinical work into clinical practice, my first aim was to develop better models to address these inadequacies.

To this end, in collaboration with colleagues in our laboratory, we have generated a bank of patient-derived xenograft models that recapitulate tumour heterogeneity and are therefore considered more representative of patient tumours. To develop patient-derived xenografts, we collect fresh treatment-naïve tumour tissues from endoscopic biopsies and/or resection specimens and implant them into immunocompromised mice. These xenografts will grow on the back of mice, and upon validation studies against patient samples we have demonstrated that they are similar with respect to histology, cell surface markers, oncogenic signatures and response to chemotherapy. Secondly, I have generated tumour cell lines with acquired resistance to cisplatin chemotherapy.

Thirdly, I have also successfully developed the first spontaneous metastatic mouse model of oesophageal adenocarcinoma. Collectively, these models will be an invaluable resource for future research.

Currently, there are five recognised pillars in cancer treatment: surgery, radiotherapy, chemotherapy, molecular therapy and immunotherapy. The focus of my work is to identify potential molecular therapies to trial in oesophageal adenocarcinoma. Molecular therapies is the basis for ‘precision’ or ‘personalised’ medicine. The idea is that by inhibiting an oncogenic driver (e.g. her2 in breast cancer) with a small molecule (e.g. Trastuzumab [Herceptin]), the cancer will be preferentially targeted with minimal collateral damage to normal cells in the body, thus minimising toxicity for the patient. In oesophageal adenocarcinoma however, genome-wide analyses have suggested that oncogenic drivers amenable to inhibition with current therapeutics are limited. In contrast, mutations in the tumour suppressor p53 are very common (~70-90%), and is associated with chemo resistance and poorer survival. In collaboration with researchers at the Karolinska Institute, Sweden, we have tested the therapeutic efficacy of a drug: APR-246, a first-in-class reactivator of mutant p53, in our novel animal models. We have demonstrated that APR-246 has potent therapeutic efficacy in oesophageal adenocarcinoma, particularly when administered together with conventional chemotherapy. Excitingly, based on our results, a Phase II multicentre clinical trial will commence later this year for patients with advance oesophageal cancer.
What has been the highlights in my PhD? Where do I start! It really has been a dream run. Without a doubt, the ability to translate bench work to the bed-side within 4 years is absolutely amazing. Although there is an element of right place right time here, I cannot speak more highly of the people with whom I’ve collaborated with during my PhD who are the true enablers of my work. These include my wife, my immediate lab colleagues and supervisors, researchers and clinicians across the Department of Cancer Research, Cancer Surgery and Cancer Medicine at Peter Mac, and those beyond Peter Mac both nationally (St. Vincent’s Centre for Applied Medical Research Sydney, Flinders Medical Centre Adelaide, Queensland Institute for Medical Research) and internationally (Karolinska Institute Sweden, Academic Medical Centre Amsterdam, Edinburgh Cancer Research Centre UK). These people are highly skilled, efficient, resourceful and enthusiastic; synergistic qualities needed for translational research.

I’ve also had numerous opportunities to present my work at national and international conferences, during which I’ve met many inspiring clinician-scientist and leaders in upper GI oncology including Prof. Richard van Hilligerberg (Utrecht University, Netherlands), Prof. Shelia K. Krishnadath (Academic Medical Centre, Netherlands), Sir Murray Brennan (Memorial Sloan Kettering Cancer Centre, USA) and Prof. David Wang (UT Southwestern Medical Centre, USA) to name a few.

Finally, I’ve learnt a lot about science and medicine over the course of my PhD. In addition to writing and critiquing journal papers, I’ve gain knowledge and skills in clinical trials design, genome-editing, bioinformatics, protein analysis, flow cytometry, high-content drug screens, animal models and an entire gamut of functional scientific assays. Although I cannot profess to being an expert in any, I believe I’ve learnt the language necessary to appreciate and communicate with the true experts in these fields.

And now more than ever, where surgery inevitably crosses paths with the latest advances in science and medicine, speaking a common language is crucial to improving patient care.

What are some challenges that I’ve faced during my PhD? In many aspects, lab-based research is like a roller-coaster ride, experiments can work one week and fail the next. Hypotheses are made and broken, sometimes all within one day! Probably the greatest challenge that I’ve had to face during my PhD was getting use to how often things fail, and in this sense I’ve also developed a greater appreciation for the day-to-day efficiency of clinical practice, something that I’ve always taken for granted before my PhD.

Overall, I feel that the last 3.5 years has been as much a personal journey as it is about doing research. I’ve been incredibly lucky to have worked with some amazing people, I’ve learnt a lot, and hopefully I have contributed in a small way to understanding oesophageal cancer.

I realised that postgraduate research is not necessarily everyone’s cup of tea, but for those who are considering a PhD or DMedSc and would like to discuss more about this, please feel free to contact me.
None of the above facts were known to us before we started working in Sale as the two Austin Hospital supplied unaccredited general surgery registrars. This was a job of many firsts for both of us.

Without launching into a long and boring list, the two most important firsts which when combined made the job a daunting prospect were that it was our first venture into a rural hospital surgical unit and also our first venture into the responsibilities of being a registrar. All things considered however, Sale is an ideal setting to facing the challenges of being a first year unaccredited registrar and after reading this you will hopefully agree with that summary (that’s the idea anyway).
I guess it’s best to begin with the logistics. The hospital general surgery unit is serviced by three full time general surgeons, one part time general surgeon who operates once a fortnight and one visiting general surgeon who does a weekend on-call once a month. Registrar wise, there are two Austin Hub supplied unaccredited surgical registrars and one unaccredited registrar from the Eastern. Without going into too much politics, the job has involved a SET trainee in the past but for various reasons it is currently serviced by unaccredited registrars. There is also one intern on the surgical team.

Outside of the general surgery unit the inpatient hospital has a general medical team equipped with several physicians (of various expertise), 4 medical registrars and 3 interns. It also has an O&G registrar, an O&G resident, a paediatrics resident (yes that is a word), and a GP resident. Between all of these teams, we share the inpatient management of any patient who comes through the ED. Patients aren’t great at following the rules so of course there are many patients who don’t fit any of the four types of specialties that we are most adept in. This translates to a world where close enough is good enough – any sort of surgical problem will require the input of you as the general surgery registrar.

Apart from ED referrals, there are occasionally specialty surgical operating lists carried out by visiting specialists – these are usually all day cases and the responsibility of these patients lies with the relevant visiting consultant.

Moving on to the nature of the job – the unit is basically divided in three. Each registrar is allocated to a single full time consultant and as all 3 registrars are in Sale for 6 months, the rotation with each consultant is 2 months long. This translates to accompanying your consultant to each of their operating lists and scope lists every week. This varies between consultants but at the very least should equate to 1 full day operating list and 1 half day scope list. The rest of the week is spent on a variety of attending outpatients, pre-admission clinic (which are usually delegated to the unit intern), 2nd assisting/observing a different consultant’s operating list and sorting out referrals – the fact that there are 3 registrars employed means that there should always be someone who is free and available to see referrals. Unfortunately, because the number of consultants and registrars aren’t strictly equal (with the fourth “part time” consultant and the visiting-once-a-month-weekend-on-call consultant), your on call doesn’t necessarily match up with the consultant you are allocated to for elective lists. However, this doesn’t usually pose much of an issue.

Without going into too many specifics about the operating lists, the over-arching theme is that these are rural general surgeons. There is a wide variety of what you may find on the list. There is usually a healthy proportion of small cases like lumps and bumps, vasectomies, toenails etc. mixed with a variety of longer cases like open/laparoscopic hernias, laparoscopic cholecystectomies and even the occasional hemicolectomy. Your involvement in these cases will vary depending on your experience and the complexity of the case. Overall I think there is at least a reasonable opportunity to ‘do some cutting’ as the phrase goes. This may not be as extensive as some other jobs – you won’t be in theatre every day and you certainly won’t be the primary operator every case but the job gives you a chance to a) learn

The surgeons working in Sale are:
Paul Strauss (director)
Saifulla Syed
Marius Jordaan
Anamitra Sarkar (part time)
Chris Lu (locum once a month)
some operating skills or b) expand on your operating skills depending on where you are at in your experience.

In terms of on call, like all jobs, it can vary from civilized to pandemonium. Unlike other jobs, the reasons for this are not always general surgical in nature i.e. they may not be things that your on call consultant can help you with. There will be lots of referrals to metropolitan hospitals or larger regional hospitals that offer specialty surgical services that Sale doesn’t have. You will have numbers of certain hospitals and maybe even certain registrars from certain hospitals on speed dial. However, and this is the important thing – this is not necessarily a bad thing. There is something to be said about gaining experience across various surgical specialties. Being comfortable, confident and competent in the initial management of surgical patients across other surgical specialties will stand you in good stead somewhere down the track in your surgical future. Sure, I’m a glass half full kind of guy but at the very least, even if you don’t see these non-general surgical referrals as a potential learning point, at least don’t let it put you off choosing this job. And don’t get me wrong – you will receive plenty of general surgical referrals as well but I’m sure you would expect that working as a general surgery registrar. In terms of the impact on call has on your lifestyle – it’s a one-in-three job. When you’re on call, you’re on call overnight which can result in some sleepless evenings and the resulting ill effects of that.

The last thing I need to mention is that you are also on call for emergency gynae cases (i.e. Caesar’s) when the O&G reg isn’t on call so when on call be prepared to pull out your fair share of screaming infants which tend to be a bit larger, more mobile, more loud, more bloody and generally more gross than your average appendix.
The next unique thing about the job in Sale is the involvement you will receive from your consultants. If a surgeon is responsible for a patient on the ward (either via the emergency department or an elective multi-day case), they will do a ward round that morning. Sometimes this results in multiple simultaneous ward rounds in the morning but there are enough staff members working to facilitate this. The point is that you will receive direct consultant level input on all inpatients on a daily basis.

Outside of the clinical sphere, there are also some housekeeping topics that warrant discussion. First of all, the house you will be keeping is in the form of a reasonable sized albeit fairly aged unit. Depending on factors beyond your control, you may be sharing with a housemate. The units are fairly basic in nature but do come furnished and a kitchen stocked with utensils. Don’t get me wrong, it isn’t a glamorous home by a long chalk but it gets the job done. You will be given Wi-Fi access but this is shared with one or two neighbours and can be a bit patchy.

Conveniently, the units are located about a 5 minute walk from the hospital so the commute is negligible. There are some eateries that you should pay a visit to during your stay in Sale. In no particular order they include The Criterion Hotel (pub grub), O’Neill’s (steak), The Star Hotel (trivia night), The Hunting Ground (coffee) and Mister Raymond (brunch).
In terms of games and leisure, the hospital and your accommodation is very close to Lake Guthridge, which has a 2.4km walking/running track around it. On top of this there are many trails around the region which can be suitably enjoyed on foot or on a bike. As the area is packed full of lakes and rivers and is close to the sea, there is plenty of fishing to be had for any keen anglers. For those who prefer their leisure indoors there is a decent gym/pool across the road from the hospital. There is also an Anytime Fitness in town and if you can use your existing membership for easy access if you have one. Obviously we don’t spend all our leisure time exercising so there is also a local cinema theatre and not really much of a boutique shopping scene but that’s probably because I haven’t looked very far into it.

Okay well that’s most of what I can think to write about. Hopefully this has provided you with an objective, useful report on what you can hope to expect should you land the Sale job. I’m not on commission to say this, but overall I think it’s a decent job with all things considered. You will learn plenty and will work with some nice people along the way. If there is anything I’ve missed or you want additional info feel free to get in contact with me at munad.khan@gmail.com.