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RPA  
INSTITUTE OF  
ACADEMIC SURGERY



## SPRING 2020

Spring has sprung and we have certainly seen an increase in activity over the last few weeks here at the IAS, which has been pleasing to see after a challenging mid year period.

Robotic training and a number of other courses have recommenced with measures in place to ensure everyone is COVID safe. We have also started our webinar series with the IAS podcasts soon to be released.

Although the end of the year is still looking uncertain, with restrictions still in place, we are continuing to make the most of the situation with online programs and plans going ahead to provide innovative research and educational support to all our surgical specialties.

## IN MEMORIUM

### PROFESSOR MARTIN TATTERSALL AO

It is with great sadness we farewell Professor Martin Tattersall AO who passed away on Sunday 30 August in his home surrounded by his family.

Professor Tattersall was a medical oncologist who worked with many of the staff and surgeons at RPA and Chris O'Brien Lifehouse.

We remember him for the greatest of professional standings, providing world class care to so many patients on this campus.

He was both a clinician and researcher, pioneering care for oncology patients.

His impact was profound, with his research paving the way for great change to the way in which we provide care



to our patients.

From his passing come the numerous stories told by patients and patient's families about his loving bedside manner. Clinicians remembering him for his kind and driven nature.

Professor Tattersall will be greatly missed by all.

Professor Tattersall's son, Mark has written an article detailing his career which can be viewed via the link below.

[READ ARTICLE HERE](#)

## CONGRATULATIONS

### **ASSOCIATE PROFESSOR PAYAL MUKHERJEE**

Congratulations to Associate Professor Payal Mukherjee for submitting her PhD thesis and having it accepted.

Her thesis title was *"Translation of 3D technologies for personalised medicine in Otology"* and was completed under her lead supervisor, Professor Michael Solomon.

### **ASSOCIATE PROFESSOR CHERRY KOH**

Congratulations to Associate Professor Cherry Koh who has submitted her PhD thesis.

The title of her this is *"Decision making in pelvic exenteration: Patient, Clinician and Societal perspectives"* and was completed under the lead supervision of Professor Jane Young.

### **PROFESSOR JONATHAN CLARK AM**

Congratulations to Professor Jonathan Clark who has been announced as Australia's first Professorial Chair in head and neck cancer surgery. The chair position was established through a generous donation of \$3.9 million from the Walker Family Foundation. It will enable investment in the latest 3D printing and virtual surgical planning technology as well as accelerate research and innovation, giving patients access to life-changing breakthroughs.

Professor Clark is the Director of Head and Neck Research at Chris O'Brien Lifehouse as well as the IAS Research Lead for the department.

Professor Clark should also be congratulated for being invited to present the Graham Coupland talk at the RACS NSW awards night.

Read more [here](#) about Professor Clark's new chair appointment.

## **ASSOCIATE PROFESSOR JONATHAN HONG**

Congratulations to our Deputy Director of Surgical Education, Assoc. Professor Jonathan Hong who has been recognised by the Royal Australasian College of Surgeons (RACS) and awarded a NSW Merit and medal for his leadership in surgical education.

Assoc. Prof Hong is a busy colorectal VMO who dedicates much of his time to providing surgical training and education for junior staff and is very deserving of this accolade and recognition.

## **WELCOME**

### **Professor Robert Sanders**

Welcome to Professor Robert Sanders who has been appointed as the academic head of anaesthetics and the Nuffield Chair of Anaesthetics at the University of Sydney.

Professor Sander's passion is translational medicine, understanding mechanisms of disease to improve patient outcomes and experience. He trained in London before moving to Wisconsin, USA to work as an Associate Professor.

He has various career achievements including being awarded Macintosh Professorship by the Royal College of Anaesthetists, UK in 2019. Dr Sanders has a wealth of knowledge and we are excited to have him here at RPA.

### **Georgina Fisher**

A big welcome also to Georgina Fisher who has joined the team at SOuRCe as the vascular research officer. She will be assisting the vascular department with their current and upcoming studies.

### **Dr Vicki Patton**

Dr Vicki Patton has also joined the team, having worked at St George Hospital she moved

to RPA and has taken on the role as the Advanced GI Surgical Nursing Program Manager.

## EDUCATION AND TRAINING

### Surgical Skills Training Sessions

We have had several well attended surgical skills sessions in the last few weeks at the regular Thursday sessions.

**1-Neuro-trauma:** Theory of neuro-trauma and a hands-on how to perform Burr-hole and craniectomy, designed by Dr Alistair Jukes and the team from Depuy Synthes, who also supplied the skulls, drills and spine models

This is a part of a monthly series of trauma skills planned by Dr Matt Oliver.

**2-Surgical Endoscopy:** Presented by the education team using the silicon models

**3-Vascular teaching:** Dr Jacky Loa gave a brief presentation, demonstrated vascular anastomosis and guided trainees to complete several utilising silicon models

The courses are currently on hold due to COVID-19 response but we will be commencing again when we have approval. If you are interested in teaching your sub-specialty skills to these keen trainees, please get in touch with David Storey or Rosa Fung or any of the IAS Surgical Education team.

[CONTACT EDUCATION TEAM](#)

### Interview Skills Session

On 13 August, Director of Centre for Education and Workforce Development (CEWD), Lesley Innes provided an excellent overview of preparation for an interview. This presentation was recorded and is available on the 'Fundamentals of Surgery Course' Moodle Platform for interested surgical trainees.

The session was attended by 35 people with participants including those from the Sydney South West Surgical Skills Network (SSW SSN), surgically interested RPA JMO's, with the other 50% dialing in from other sites from across the state.

[REQUEST ACCESS TO MOODLE](#)

## Fundamentals of Surgery E Learning Course

A COVID-19 response to the difficulty of Pre-SET trainees obtaining ongoing educational support during this time, has been the innovative development of the Fundamentals of Surgery online course.

The course has utilised the extensive content from previous courses conducted by the RPA IAS education team in collaboration with HETI and in addition links the trainees to other resources.

There are 5 modules designed for the early trainee. It was released in early May and now has 346 trainees across the state enrolled. Contact [Sarah.Whereat@health.nsw.gov.au](mailto:Sarah.Whereat@health.nsw.gov.au) if you would like to enrol or view the content.

## Sydney Robotics Summit 2020

The convenors of the Sydney Robotics Summit (SRS), Associate Professor Ruban Thanigasalam and Dr Scott Leslie hosted the Australian Robotics Program as part of the World Robotics Symposium.

The program was brought together by the Society of Robotic Surgery, directed by internationally recognised surgeon Professor Vipul Patel.

Dr Vipul Patel has a great relationship with the SRS team as he was the plenary speaker for the inaugural program held in 2017.

The Australian program HQ was run out of the Device Technologies Head Quarters and included 5 sessions with

The full program can be viewed via the link below.



*The above is collation of speakers from all the international programs held as part of the World Robotics Symposium*

**WATCH PROGRAM**

 **IAS WEBINAR SERIES**  
RPA INSTITUTE OF **ACADEMIC SURGERY**

## **IAS WEBINAR SERIES**

The IAS webinar series was created to provide surgical departments with an opportunity to deliver online education during COVID, as well as a promotional platform for these departments to teach others about their research and programs, encouraging collaboration.

Benign Gynaecology held the first webinar for the IAS webinar series on Friday 18 September covering the Uterine Transplantation program they are going to start at RPA. The program was moderated by IAS Research lead (Benign Gynaecology) Dr Anthony Marren and included presentations from international advisors, Dr Liza Johnneson, MD and Dr Giuliano Testa, MD from Dallas, Texas.

On Monday 21 September, a multi disciplinary group hosted their webinar on 3D printing

in Head and Neck and ENT. The webinar included a number of presentations from surgeons and clinicians working with 3D printing to assist patients in achieving better aesthetic and functional outcomes.

The next webinar is a half day program being run by Assoc. Professor Sanjay Warriar, titles "Next frontier in Breast Surgery". The program has international and local speakers presenting on a number of innovative devices and procedures within breast surgery.

All upcoming webinar programs, registration links and past webinars can be found via the link below.

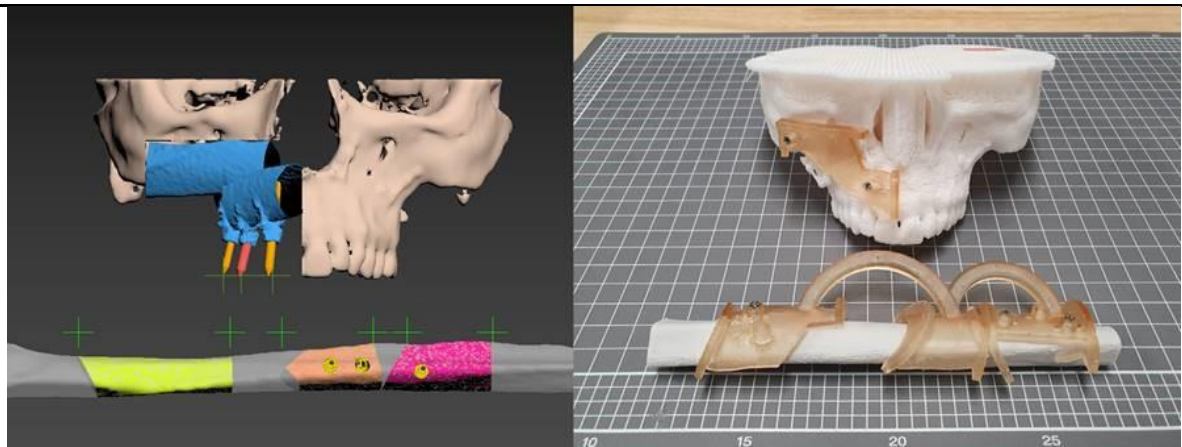
## IAS WEBINARS

# INNOVATION

## 3D Printing

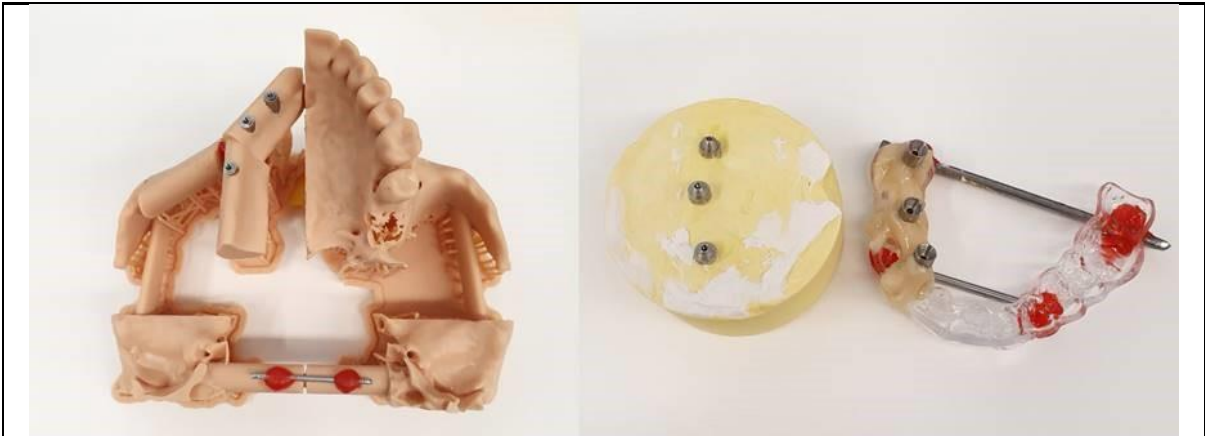
It has been a busy few months for the 3D printing team with a number of exciting projects being developed.

The team have successfully conducted Virtual Surgical Planning (VSP) and 3D printing surgical guides on a complex maxilla reconstruction case as seen below. The image on the left is the planning and the image on the right is the planning guides 3D printed and positioned on the 3D printed models to ensure they fit correctly to the patients anatomy.

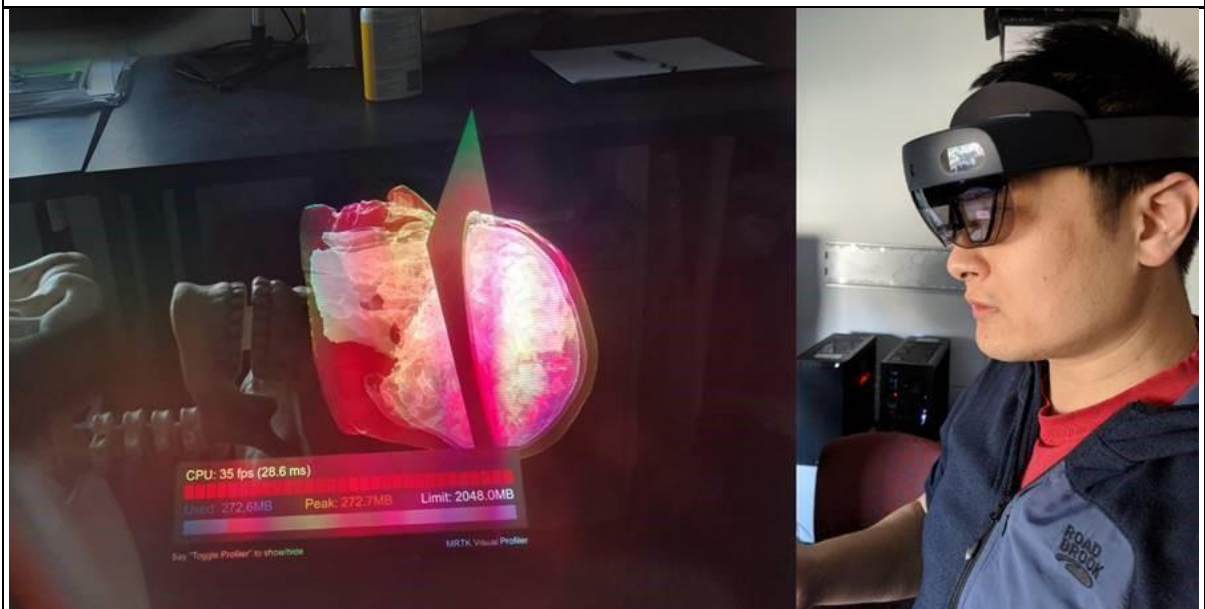


The team are also introducing Digital Dental Impression workflow in complex Maxillofacial Surgery.

This allows for 3D models with dental implants to be printed to facilitate efficient denture preparation compared to conventional approaches where an impression guide, transition guide and dental pour models has to be created for denture manufacturing.



A collaboration with Assoc. Professor Jinman Kim who is based in the School of Computer Science within the Faculty of Engineering and Information Technologies at University of Sydney, is underway to investigate the feasibility of utilising Microsoft HoloLens 2 in medical imaging visualisation and virtual surgical planning.



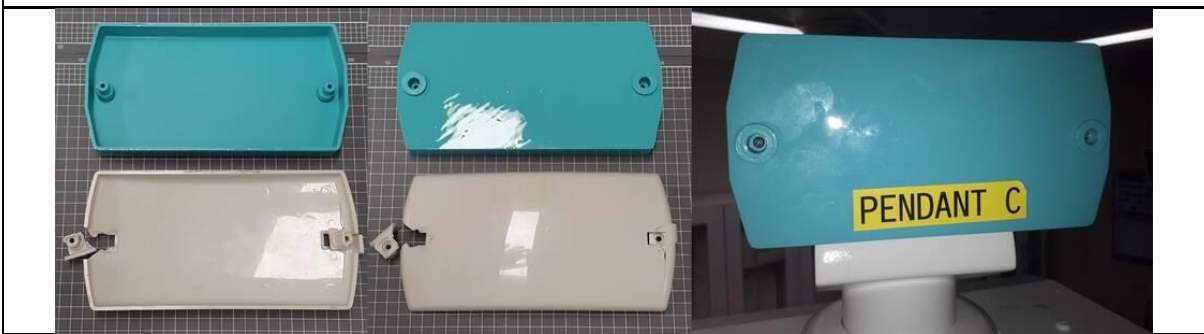
Another project being run is developing and printing 3D models for Sternotomy training sessions for cardiac theatre nurses. The 3D “ribs” will be connected with a piece of hard foam (as the sternum) for cardiac nurses to open the sternum with the sternal saw.

The nurses can also use the models to learn how to close the sternum using surgical stainless steel sutures. The training will be used to increase the understanding of median sternotomy, sternal closure and post-sternotomy care. *Scans and prints can be seen below from left to right.*



The team have also been working with theatres to 3D print a pendant cover in theatre 17 that had broken. It was difficult to source an identical cover due to the parts being discontinued.

Based on the broken cover, Kai was able to re-designed and 3D printed a new cover. The new cover fits perfectly and the feedback from the theatre team have been positive.



Kai has also been working with Assoc. Professor David Storey to design and 3D print a plastic mould to create anatomically accurate silicon liver models for training programs. The image below on the left is the mould that was 3D printed. Assoc. Professor Storey is on the right in the image below holding the silicon liver that was made using the mould.



## DEPARTMENT SPOTLIGHT

### RPA OPHTHALMOLOGY DEPARTMENT

We sat down with one of the Ophthalmology department's VMOs, **Dr Brian Harrisberg** to find out more about his career as an ophthalmologist over the last 30 years at RPA.

#### **Tell us about your department:**

The ophthalmology department is one of the largest ophthalmological teaching units in Australia and provides quaternary level care to patients with diseases of the eye and visual system. The team of nine specialist eye surgeons undertake more than 500 operations and deliver care to more than 4,000 ambulatory care patients annually, along with providing extensive consultations to other disciplines and patients at RPA.

The department includes Head of Department; Dr Jay Yonhendran who is also the research lead and education lead for the department.

The department's area of expertise includes thyroid eye disease, diabetic eye disease, inflammatory eye disease, intraocular cancer, tear duct surgery, glaucoma and complex cataract surgery.

The department works closely with a number of other surgical departments.



*Sydney Harbour Sunrise Fog and Moon  
Photo: Brian Harrisberg*

**Why did you want to be a surgeon and why did you choose to specialise in ophthalmology?**

I was keen to be involved in the best form of therapy for patients aiming for curative outcomes. I wanted to do something that could change someone forever. With surgery you see results and the impact straight away.

When deciding what I wanted to specialise in, I looked at all the subspecialties and by process of elimination landed on ophthalmology. As a student I went windsurfing during the ophthalmology rotation.

I was attracted to ophthalmology as it has a direct connection with multiple parts of the body, like neurology, immunology and endocrinology. I have also always been very interested in the brain. There is significant overlap with these other medical specialties that require a multidisciplinary approach.

Technology has been driven through ophthalmology. The first laser ever used in a clinical case was used to treat a melanoma in an eye. This was done in a glassed domed theatre with the sun as the source of light. This was the first attempt at using collimated light to influence tissue by thermal coagulation.

**Best part about your job?**

The substantial connection with patients. Surgery to restore vision can present as a 'wow factor' phenomenon. For example, patients who have lost vision can have their vision restored within an hour after surgery.

Sight is such an important sense. Many of my patients are blind without their visual aids. Technological advances have resulted in less blindness globally. Refractive surgical advances through complex laser machinery can remove errors of focus so that patients no longer need their visual aids. This can change people's lives.



*Galah feeding on wild flowers - Narrabri*  
Photo: Brian Harrisberg

### **A memorable highlight in your career so far?**

There are so many but the one that stands out is when you realise it's a pivotal moment in the treatment of a patient.

I have been working at RPA for over 35 years, this top world tertiary institution has given me great exposure to multiple medical problems across all disciplines and there are times where you realise that there are diseases that you have seen that no one else has had the opportunity to see.

One example of this was a young patient who was being seen by the neurologists who was losing hearing, vision and dementing rapidly. They were unsure of the diagnosis and were considering a brain biopsy.

I was able to look into this patient's eyes and identified arterial obstructions, which is part of a very rare disease (Susac's syndrome). In fact this was the first documented case in Australia and this allowed us to change the course of the treatment for this patient.

That is just one of the many examples.



*Female Leopard - Sabi Sands National Park, South Africa*  
Photo: Brian Harrisberg

**If you weren't working as a surgeon what do you think you would be doing?**

I would be a wildlife conservationist. I love traveling to jungles and remote places all over the world and taking photographs of nature.

Dr Harrisberg is a very talented photographer. You can view some of his great photography on Instagram - @birds.nature.world

**Best advice from your mentor?**

Forever to be humble and realise it's a privilege to work and care for your patients. I recommend treating patients with the upmost respect and care, as if they were your family.

**Best advice you would give someone wanting to study surgery/medicine?**

Aim as high as you like, you will get there.

Enjoy the journey, no matter how long it takes in doing so.

Remain forever present and open minded.



© Brian Harrisberg

*Rural Sri Lanka sunrise over the paddy fields*  
Photo: Brian Harrisberg

## IN THE NEWS

### **SURGICAL ARTIST IN RESIDENCE**

The surgical Artist-in-Residence, Jo Woodcraft started her placement at RPA with the Arterie@RPA team in March as part of March Arts but due to the pandemic she was unable to be on the hospital campus completing her artwork.

Jo finished the artistic sculpture in her studio in Marrickville.

*Read the full article below.*

[READ FULL ARTICLE](#)



### **3D Printed Ear Savers**

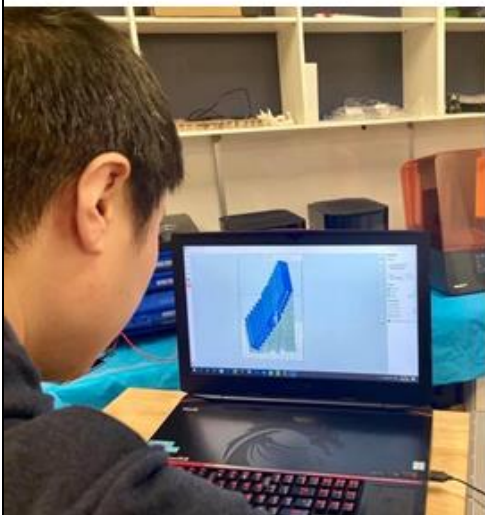
Earlier this month, the RPA Institute of Academic Surgery got a call from our operating theatres asking if they could help with some 'ear-savers' for the staff.

Ear savers work as a tie between the elastic ear loops of a face mask, stopping pressure behind the ears for wearers.

The IAS team moved quickly to finalise a design and 3D print them with their resin printer.

So far, 400 ear-savers have been delivered, with more to be printed over the next few weeks.

IAS jumped at the chance to help out the staff, with IAS Executive Director, Katie McBride saying; "I hear they have been a big hit and it feels so nice to be able to help the team in theatres."



**Surgical Research**

## 2019 Research Activity Report

Director of Surgical Nursing Research, Rachael Roberts worked with all surgical heads of department to collate the research activity for all surgical departments at RPA.

Overall there was an increase in publications for 2019 with **230 publications** across all surgical departments. Colorectal/SOuRCe, Melanoma and Surgical Oncology, Cardiothoracic surgery and Head and Neck Surgery were the top four departments for number of publications.

A total of **191 presentations** were given at key forums/conferences, **86 ethics submissions** by RPA surgical departments and **100 post-graduate students** were supervised by RPA surgical departments.

The full report can be viewed below.

[FULL 2019 REPORT](#)

## Published Articles

### Recently published articles from RPA Surgeons and Departments

[Cost-analysis of cytoreductive surgery and hyperthermic intraperitoneal chemotherapy in patients with peritoneal malignancy: An Australian perspective with global application](#)

Kate E.McBride, Daniel Steffens, Michael J.Solomon, Cherry Koh, Nabila Ansari, Christopher J.Young, Brendan Moran  
**European Journal of Surgical Oncology**  
September 2020

[Deliberate practice model effectively directs student learning in the critical care rotation: The impact of assessment on medical student learning](#)

Sarah Whereat, Anthony Mclean, Louise Cole, Tim Suharto, Graham Hendry, Stuart Lane  
**MedEdPublish**  
August 2020

[Development and validation of a multivariable prediction model for the identification of occult lymph node metastasis in oral squamous cell carcinoma](#)

Maxime Mermod MD, PhD, Eva-Francesca Jourdan MSc, Ruta Gupta MD, Massimo Bongiovanni MD, Genrich Tolstonog MD, PhD, Christian Simon MD, Jonathan Clark MD, Yan Monnier MD, PhD

**Journal of the Sciences and Specialties of the Head and Neck**  
February 2020

[Stomal therapy's response to the COVID-19 crisis in a major teaching hospital in Australia](#)

Mendes, Colleen and Bongat, Maria  
**Journal of Stomal Therapy Australia**  
June 2020

If you have an item you would like to be considered for inclusion in our e-update,  
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