

*RPA Institute of Academic Surgery
e-newsletter*

Autumn 2020

COVID-19 Update

As you would be aware, the start of 2020 has been significantly impacted by the ongoing COVID-19 (Corona Virus) pandemic. A number of our larger events and courses have been postponed until a later time and we will be sending out updates once we have confirmed new dates for these events.

The IAS is using the current climate to adapt the delivery of surgical education and meetings. Online video conferencing programs are being used to ensure that crucial research meetings are still going ahead and we are developing take home packs for students to continue their surgical training.

Our clinical research studies are continuing where possible, although some will be paused, and we are looking at ways to ensure there is minimal disruption to patients. We will be monitoring the situation frequently.

We have already started to implement a number of additional measures in existing research projects to capture COVID-19 and the impact on surgical patients.

We will continue to work with our surgeons and staff to develop innovative ways to continue to deliver surgical education and training during this challenging time.

We thank everyone for their cooperation and understanding.

COVID-19 Research

The IAS has registered RPA as a site to participate in an international collaboration called the **CovidSurg Cohort Study**. The group are working on capturing the data of patients who are positive for COVID-19 and undergoing surgery.

There is an urgent need to understand the outcomes of COVID-19 positive patients who undergo surgery, and the capturing of real-time data and sharing this internationally will help to inform the management of this complex group of patients, with the ultimate aim to improve their clinical care.

The study is being run by the GlobalSurg. team with hospitals from around the world including other hospitals in Australia, as well as representation from Canada, China, Germany, Hong Kong, Italy, Korea, Singapore, Spain, United Kingdom, and the United States.

The IAS has also pulled together a small working party to research the impact of COVID-19 on Surgery at RPA with studies to cover the following topics:

- Surgical outcomes for patients with COVID-19 (CovidSurg collaboration);
- COVID Cancer: impact of COVID-19 on patients with cancer (international collaboration);
- Surgical outcomes for all patients during COVID-19 response period;
- Outpatient surgical referral patterns before and after COVID-19;
- Risk of COVID-19 transmission during aerosol procedures;
- Changes to treatment pathways and decision making;

- Impact of COVID-19 on staff across a number of areas; and
- Repercussions of COVID-19 on education and training;

The group have already had a paper accepted into the ANZ Journal of Surgery titled "Impact of the COVID-19 pandemic on surgical services: early experiences at a nominated COVID-19 center". Any further ideas for research please contact [Kate McBride](#).

3D Printing for COVID-19

ENT Surgical Consultant, Assoc. Profess Payal Mukherjee has been working with a group from around Australia to develop ways 3D printing can be used to assist with the shortage of Personal Protective Equipment (PPE), in particular masks and face shields.

This collaborative group made up of scientists, clinicians, academics and engineers have been using their expertise and resources to print PPE that can be used for those working on the front line of this pandemic.

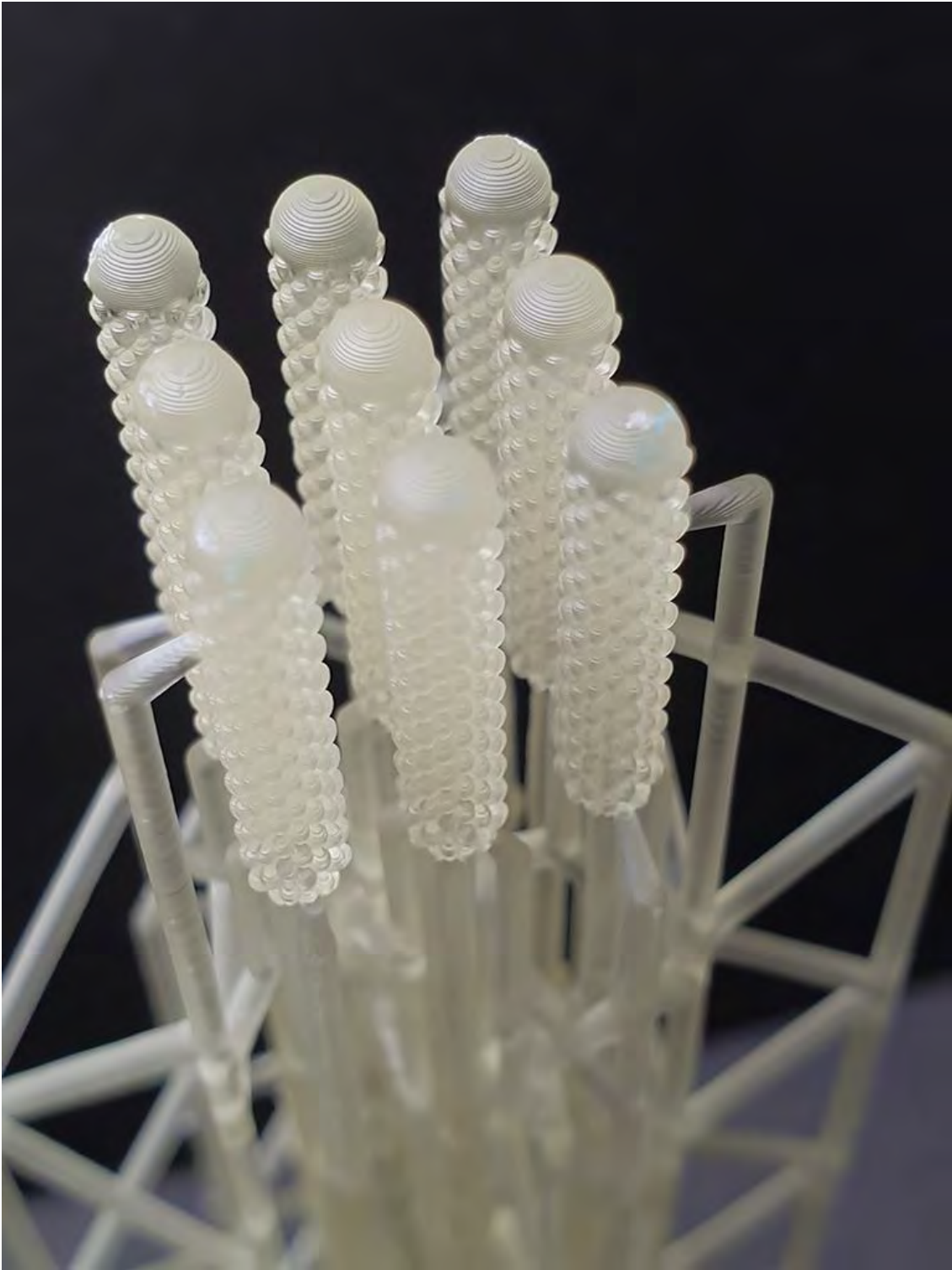
Kai has used the 3D printer at the IAS to print face shield prototypes which are in the image below. The group have also been able to develop clips for door handles so that people are able to open doors with their elbows, removing any hand contact.



Article Here

Kai has also 3D Stereolithography (SLA) printed nasopharyngeal (NP) swabs using biocompatible and autoclavable resins. These swabs are used to collect samples for COVID-19 testing but with Australia facing a national shortage, the team have been able to print prototypes to assist with the shortage.

The 3D printed prototypes are in the image below.



THANK YOU

It is with great sadness that we farewell our facility coordinator, Trevor McGowan who has taken a position at Sutherland Hospital to be closer to his young family.

Trevor started at Royal Prince Alfred Hospital as a nurse in operating theatres 14 years ago. He began with the IAS in 2016 and has played an integral part on the establishment and running of our training and education facilities.

Trevor has always been a team player, always assisting and helping where he can. He has spent the last few years at the IAS building up a number of education and training programs with RPA departments and industry partners. He spent many hours working out creative ways to build simulation models and training programs for our staff.

We wish him all the best in his new role, he will be very much missed by the staff and students at RPA.



Trevor McGowan with Director of Operating Theatres RPA, Assoc. Prof. Paul Stalley

WHAT'S ON 2020

Sydney Robotics Summit 2020

The Sydney Robotics Summit 2020 program has been postponed with a new date to be announced soon.

To keep up to date with the new dates join our distribution list.

[Register for Updates](#)

RACS ASC

The Royal Australian College of Surgeons (RACS) Annual Scientific Conference (ASC) has been cancelled but a number of the IAS staff have had abstracts accepted.

A table of the accepted IAS abstracts are listed below:

POSTERS	
KE McBride, D Steffens, J Young, T Anderson, PG Bannon, MJ Solomon.	<i>Early results for enhancing surgical research at the teaching hospital level</i>
KE McBride, MJ Solomon, PG Bannon, N Glozier, D Steffens	<i>Serious mental illness is associated with worse surgical outcomes: A Systematic Review and Meta-Analysis with 6 million patients</i>
KE McBride, MJ Solomon, D Steffens, PG Bannon, N Glozier	<i>Knowledge, attitudes and behaviours of surgeons treating patients with serious mental illness</i>
KE McBride, D Steffens, C Stanislaus, M Solomon, T Anderson, R Thanigasalam, S Leslie, PG Bannon.	Detailed cost of robotic-assisted surgery in the Australian public health sector: from implementation to a multi-specialty caseload

Surgical Think Tanks 2020

A number of surgical departments are hosting Surgical Think Tanks in the latter half of 2020. To find out more about surgical think tanks contact us directly.

RPA I-STAR Training Program

The RPA I-STAR training program for 2020 is still running and open to SRMOs.

In line with COVID-19 response we will be using registration applications for trainees to sign up to classes to keep class sizes to a minimum to ensure social distancing in line with current

The program involves a structured approach to achieve learning outcomes desired by the participants with the assistance of Assoc. Professor David

Storey, Assoc. Professor Jonathon Hong, Dr Nipu Jayatilleke, Dr Jean Wong, Sarah Whereat and guest presenters.

We will also be putting a series of online tutorials together for the SRMO's to start next week and looking to develop online resources that all can access.

For more information about ways we are providing education online please contact us directly.

[Contact Us](#)

UPDATES

3D Printing

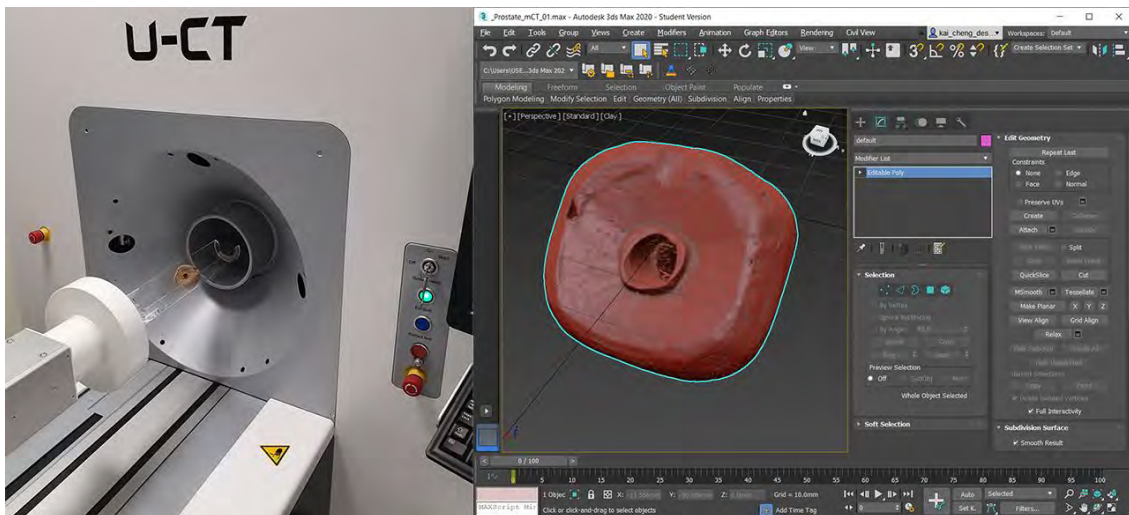
Surgical Innovations Research Officer, Kai Cheng has been working on a number of projects over the last few weeks including designing customised 3D Print PEEK bone implants that naturally fuse with the body over time. This project is being led by Professor Jonathan Clark.

Kai is also working with Assoc. Professor David Storey to make a prostate model using microCT and 3D Printing. These models will be used for digital rectal exam training.



The above image is the customised 3D printed PEEK bone implants.

The below left image is a wood crafted prostate model by Assoc. Professor David Storey being put into the micro CT scanner. The right image is a digital surface model of the prostate in 3D CAD software. Finalised model will be SLA 3D printed.



IAS Surgical Podcasts

The IAS are in the process of developing podcasts on a number of surgical

topics. We are looking for trainees and students to tell us what they would most like to listen to. Submit your topics below.

[Submit Topics](#)

Surgical Artworks

Artist, Professor Michael Esson is selling a number of his surgical artworks. Professor Esson worked with the IAS in delivering the Art in Surgery workshop with a number of our staff.

For more information or to view the artwork see link below.

[View Artwork](#)

PUBLICATIONS

[Quality of life and functional outcomes following pelvic exenteration and sacrectomy](#)

Kilian Brown, Angelina Di Re, Dean Fisher

ANZ Journal of Surgery

November 2019

[Computing Endolymph Hydrodynamics During Head Impulse Test on Normal and Hydropic Vestibular Labyrinth Models](#)

*Jorge Rey-Martinez, Xabier Altuna, **Kai Cheng**, Ann M. Burgess and Ian S Curthoys*

Journal Frontiers in Neurology

March 2020

Ethical and regulatory considerations for surgeons as consumers and creators
of three-dimensional printed medical devices

*Sharon Kemp MBBS, PhD, Jasmine Coles-Black MBBS , Mary J. Walker
PhD , Gordon Wallace FRACI, DSc , Jason Chuen FRACS, MPH, **Payal
Mukherjee FRACS, MS***

ANZ Journal of Surgery

March 2020