



 UNIVERSITY
OF MEDICINE
AND HEALTH
SCIENCES
RCSI

2019-2020
ANNUAL
REPORT



RCSI



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This report covers RCSI's operations during the period 1 July 2019 – 30 June 2020.
Some photography featured pre-dates the COVID-19 pandemic.

On the cover: Leading impactful research – Natalie McEvoy, PhD candidate at the School of Nursing and Midwifery and Clinical Research Nurse in the Department of Critical Care and Anaesthesia has harnessed her skills to get clinical research studies on critically ill patients started promptly in response to the pandemic. Read more on page 36.



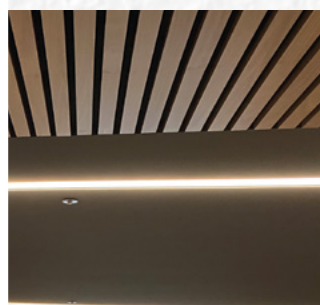
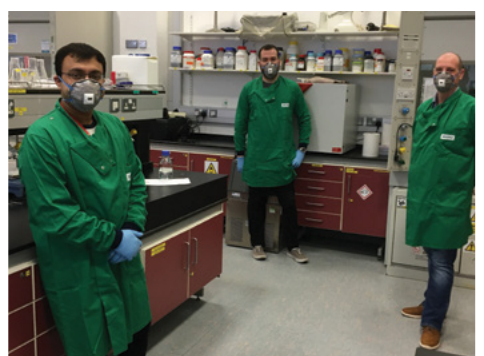
Support for surgical training and practice

- > National guidelines for surgeons in COVID-19
- > Curated COVID-19 web resource for surgery
- > Weekly webinars and President's letter
- > Surgical trainee interviews brought forward by three weeks
- > Take-home skills kits for surgical trainees
- > Simulation facilities for research on PPE breathing apparatus during surgery

Our response to COVID-19

Resources for frontline healthcare workers

- > "Conversations that matter" weekly webinars with the HSE
- > GP-Surgeons Connect, with ICGP for rapid connection of GPs with surgeon advisors
- > Positive mental health training and resources
- > Personal leadership and self-care podcasts
- > Weekly e-zines to support our clinicians and alumni
- > COVID-19 website resource hub



Supporting the national effort

- > Supported HSE to deliver national contact tracing training programme
- > 3,066 users registered on Contact Management Programme resource
- > New system to provide up-to-date information on the availability of critical care beds in ICU
- > Over 20 RCSI medical students volunteered at hospital intensive care units
- > Provided training on prone positioning
- > Upskill training on the use of ventilation equipment
- > Researchers produced essential reagents and buffers in RCSI labs to support testing
- > RCSI COVID-19 newsletter to update politicians



Strengthening the healthcare workforce

- > Final medicine exams brought forward enabling 312 future doctors from 32 countries to join the frontline
- > 1,211 applicants from 38 countries completed overseas Aptitude Test to register as a nurse in Ireland
- > Induction of 180 new interns facilitated at simulation centre
- > Final year physiotherapy students completed exams early

Impactful research for patients and frontline workers

- > Investigating blood clotting abnormalities in COVID-19 patients
- > Clinical trial of a therapy for critically ill COVID-19 patients in intensive care
- > Programme for facial PPE sterilisation
- > Preventing facial pressure ulcers in healthcare staff
- > Detecting COVID-19 infection using exhaled breath condensate
- > Study investigating pathogenesis of COVID-19
- > New treatment regimens to reduce the severity of infection



Continuity for our staff and students

- > Business planning group established
- > Rapid acceleration of digitally engaged learning
- > TeleSim programme to simulate clinical training
- > New satellite campus at Croke Park
- > Smaller learning communities for students
- > Regular Chief Executive and Dean communications to staff and students
- > #RCSIttogether positive culture initiative to support wellbeing
- > IT super users to support transition to remote working

Bringing expert-driven information to the public

- > RCSI spokespeople contributed to expert media commentary and thought leadership
- > Six-fold increase in domestic media coverage totalling 3,441 media mentions January – June 2020
- > Expert commentary and COVID-19 research reached international media including New York Times, The Guardian, BBC, Australia's Nine News Radio
- > Resources to manage COVID-19 anxiety provided through social media and website





President's review

Mr Kenneth Mealy, President

We are living through the most extraordinary public health crisis we have ever experienced. The dedication of health care workers across the country has been inspiring and we cannot overstate the sacrifice that has been made so that COVID-19 patients can be cared for. I extend my deepest gratitude to Ireland's healthcare workers and I want to acknowledge, in particular, the ultimate sacrifice made by healthcare staff who died after contracting the virus.

Numerous examples of leadership has been shown and many issues have come to the fore including the pivotal role of primary care in protecting the acute hospital system from overload, the importance of the integration of community, secondary and tertiary care and the necessity for protected capacity for scheduled surgical care.

I hope that some of the lessons learnt from the management of this crisis will inform health service planning and reform into the future.

Supporting surgeons

Providing support to colleagues on the frontline emerged as a core objective from the outset of the crisis. We have sought to provide clear guidance and share helpful resources to benefit surgeons in

practice and surgical trainees.

A comprehensive suite of resources was created and curated for the RCSI website. We also launched a webinar series aimed at addressing the issues of greatest concerns to surgeons at this time. The feedback has been overwhelming positive and the series will continue over the coming months. A weekly message from the President sought to share meaningful updates to the surgical community and that too will continue.

Surgical training

Over the past year, the Surgical Training pathway continued to innovate in response to evolving training needs.

Providing an alternative opportunity to suitably qualified and experienced candidates to apply for places in specialty training, the Equivalent Standards Route (ESR), was activated last year.

The new Specialty Training Post Quality Standards were launched across the 12 specialties in 2019. These standards set the benchmark for training site quality in line with the requirements of the College and the Medical Council's criteria for quality assurance mechanisms in place at training bodies.

In September 2019, RCSI welcomed the first intake to the Masters in Surgical Science and Practice. Designed and led by Professor Oscar Traynor, the innovative programme covers the entire curriculum for Core Surgical Training, in one year. Graduates are prepared to commence surgical training in the clinical environment at a more advanced level with documented and verifiable knowledge, skills and behaviours.

Global surgery

I am delighted that Professor Mark Shrive was appointed as O'Brien Chair of Global Surgery this year. Co-author of the ground-breaking Lancet Commission Report on Global Surgery 2030, Professor Shrive joins RCSI from Harvard Medical School and the Massachusetts Eye and Ear Infirmary, where he was Director of the Center for Global Surgery Evaluation. He will lead RCSI's Institute of Global Surgery in its work to address the provision of surgical care in low and middle-income countries.

In February, the Institute of Global Surgery, in partnership with the College of Surgeons of East, Central and Southern Africa (COSECSA) and the College of Anaesthesiologists of Ireland (CAI), launched a new multi-national anaesthesia partnership programme for East, Central and Southern Africa. This Department of Foreign Affairs and Trade funded programme aims to provide access to safer and more affordable anaesthesia care for those in need of surgery in the region.

Surgical research

Promoting surgical research remained an important objective for me during the year. I am firmly of the view that data on healthcare outcomes should be at the centre of decision-making in health policy.

An important study from the Healthcare Outcomes Research Centre at RCSI and the National Clinical Programme in Surgery was published in BMJ Open in November. The study demonstrated an association between surgeon volume and mortality outcomes in emergency abdominal surgery, showing that low volume surgical teams had consistently higher mortality for emergency abdominal surgery than high volume surgical teams.

These findings need to be considered by the Hospital Groups, HSE, National Clinical Programme in Surgery and at political level.

Gender diversity

I am pleased that the implementation of the recommendations of the report by RCSI's Working Group on Gender Diversity continued during the year. It is particularly encouraging that the proportion of female trainees commencing surgical training has continued to grow.

In February, Ms Ailín Rogers, FRCSI, was announced as the recipient of the first PROGRESS Women in Surgery Fellowship. This prestigious bursary, funded by Johnson & Johnson Medical Devices Companies, aims to give women surgeons the opportunity to gain exceptional experience in their chosen field, supporting their progression to consultant. A second recipient will be chosen in 2021.

Healthcare engagement

The National Clinical Programmes in Surgery continued to collaborate positively with the offices of the HSE Chief Clinical Officer and the National Group Lead of the Acute Hospital Division, in facilitating and promoting 'best practice' in surgical care.

Close cooperation between the clinical programmes and the HSE led to the implementation of measures to minimise the risk of acquiring COVID-19. Guidance on the careful planning of patient pathways, screening of patients prior to surgery and thorough discussions with patients of the additional risks involved was developed and communicated to surgeons.

I extend my deepest gratitude to Ireland's healthcare workers.

As we moved through the first phase of the pandemic and the community prevalence of the virus declined, the clinical programmes worked with the HSE and the Department of Health to develop guidelines for a phased return to planned surgical services while also formulating a recovery plan.

Millin Meeting 2019

Last October's Millin Meeting addressed how surgeons and surgical leaders across a range of specialisms in Ireland can manage risk in surgical practice.

Keynote addresses were delivered by healthcare leaders including Dr Cathal O'Keeffe, Head of Clinical Risk, State Claims Agency Ireland who spoke about learning from adverse events in order to advance patient safety. Dr Philip Crowley, HSE National Director for Quality Improvement, asked if we are up for a true partnership to improve quality. Dr Cliona Murphy, Chair of the Institute of Obstetricians and Gynaecologists spoke to the risky business of obstetrics and gynaecology and Professor Paul Burke, Council Member RCSI and Consultant Vascular Surgeon, University Hospital Limerick and St John's Hospital, Limerick dealt with the of governance in avoiding risk.

Professor Ian Robertson, Professor Emeritus in Psychology at Trinity College and Co-Director of the Global Brain Health Institute delivered the 27th Carmichael Lecture, entitled 'The Era of the Mind'. The 42nd Millin Lecture, entitled 'Oeseophagogastric Cancer Surgery; no longer a

death sentence', was delivered by Ms. Orla McCormack, MD FRCSI and Consultant General Surgeon at the Mater Private Dublin.

Charter Day 2020

We didn't know then that the 2020 Charter Day would be the last in-person gathering for the surgical community before the pandemic.

The Friday Charter Day Meetings featured addresses and panel discussions under the theme of 'Choosing Wisely'. Speakers included Laura Magahy, Executive Director of Sláintecare; Dr Tony Sparron, President of the Royal Australasian College of Surgeons; and Professor Stephen Wigmore, Regius Professor of Clinical Surgery, University of Edinburgh.

The first survey of accredited Acute Surgical Assessment Unit (ASAU) patients was published by the National Clinical Programme in Surgery during the annual Charter Day event. The survey showed that their experience was overwhelmingly positive, with satisfactory wait times and clear communication of their care plan. These units give patients faster access to expert surgical advice when they have a surgical emergency.

Thank you

This is the final annual report of my term of office. The 2020-2022 Council will be ably led by Professor P. Ronan O'Connell as President and Professor Laura Viani as Vice President. I wish Professors O'Connell and Viani every success in their respective roles, particularly understanding the challenges that lie ahead.

I wish to also thank the Fellows and Members of the College. It has been a great honour to serve as President of your College and I greatly value the engagement we had during that time.

I also offer my sincerest gratitude and best wishes to the Chief Executive, Professor Cathal Kelly, Dean of the Faculty of Medicine and Health Sciences, Professor Hannah McGee and their senior management team. In recent years, RCSI has made enormous progress and enjoyed great success under their stewardship; achieving university status in 2020 is a milestone we can all be justifiably proud of. As we face into turbulent times, I am confident that with their drive and dedication, RCSI will continue to deliver its mission of educating, nurturing and discovering for the benefit of human health.

The clinical programmes worked with the HSE and the Department of Health to develop guidelines for a phased return to planned surgical services.



Council members



Mr Kenneth Mealy
President, RCSI; Consultant Surgeon (General), Wexford General Hospital



Professor P. Ronan O'Connell
Vice President, RCSI; Emeritus Professor of Surgery UCD; Consultant Surgeon, St Vincent's University Hospital



Professor John Hyland
Immediate Past-President, RCSI; Consultant Surgeon (General/Colorectal)



Professor Joseph G. O'Beirne
Consultant Surgeon (Trauma and Orthopaedic), University Hospital Waterford



Professor Paul Burke
Consultant Surgeon, Chief Academic Officer, University of Limerick Hospital Group



Professor Camilla Carroll
Consultant Surgeon (Otolaryngology Head and Neck), Royal Victoria Eye and Ear Hospital, Dublin and Blackrock Clinic.



Professor Kevin Conlon
Professor of Surgery, Trinity College Dublin; Consultant Surgeon (General/HPB), St Vincent's University Hospital and Tallaght University Hospital



Professor K. Simon Cross
Consultant Surgeon (Vascular/General), University Hospital Waterford



Ms Bridget Egan
Consultant Surgeon (Vascular), Tallaght University Hospital



Mr James Geraghty
Consultant Surgeon (General/Breast), St Vincent's University Hospital; Associate Professor in Surgery, UCD



Professor David Healy
Consultant Surgeon (Cardiothoracic and Transplant), St Vincent's University Hospital and Mater Misericordiae University Hospital



Professor Thomas H. Lynch
Consultant Surgeon (Urological), St James's Hospital, National Lead ENT Education in Primary Care



The Hon. Mr Justice Peter Kelly
President of the High Court



Mr Paddy Kenny
Consultant Surgeon (Orthopaedic), Connolly Hospital Blanchardstown and The National Orthopaedic Hospital at Cappagh



Professor Michael J. Kerin
Professor and Head of Surgery, NUI Galway; Consultant Surgeon (Breast/ Endocrine/ General), Galway University Hospital



Mr Eamon Mackle
Consultant Surgeon (General), Craigavon Area Hospital



Professor Deborah McNamara
Consultant Surgeon (General/Colorectal), Beaumont Hospital and Co-Lead National Clinical Programme in Surgery



Mr David Moore
Consultant Surgeon (Trauma and Orthopaedics), Children's Health Ireland, Crumlin, Tallaght University Hospital and Blackrock Clinic



Ms Margaret O'Donnell
Consultant Surgeon (Plastic, Reconstructive and Aesthetic Surgery), Blackrock Clinic and St Vincent's Private Hospital



Mr David Quinlan
Consultant Urologist, St Vincent's Healthcare Group



Professor H. Paul Redmond
Professor and Chairman of the Department of Surgery at UCC and Cork University Hospital Group



Roderick Ryan
Chartered Accountant

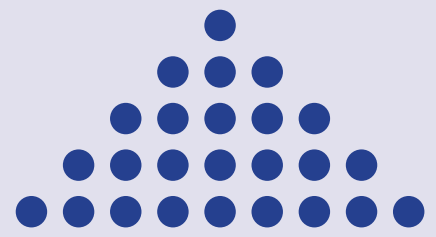


Professor Laura Viani
Consultant Otolaryngologist/Neuro-otologist; Director of The National Hearing Implant and Research Centre, Beaumont Hospital/RCSI

A year in numbers

No. 1
for **GOOD**
HEALTH *and*
WELL-BEING

THE **IMPACT**
RANKINGS 2020



TOP
250

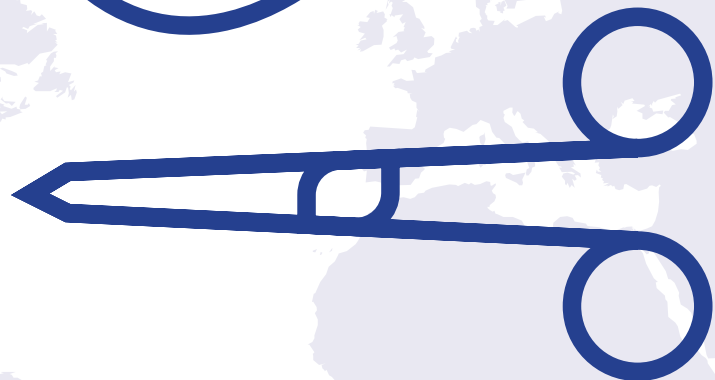
TIMES HIGHER EDUCATION
WORLD UNIVERSITY
RANKINGS 2020



Students
from more
than **68**
countries

4 overseas
campuses:
Malaysia (2),
Bahrain and
Dubai

STAFF*
1,160



469

surgical and emergency
medicine trainees

9,600

Fellows and Members
across **86 countries**

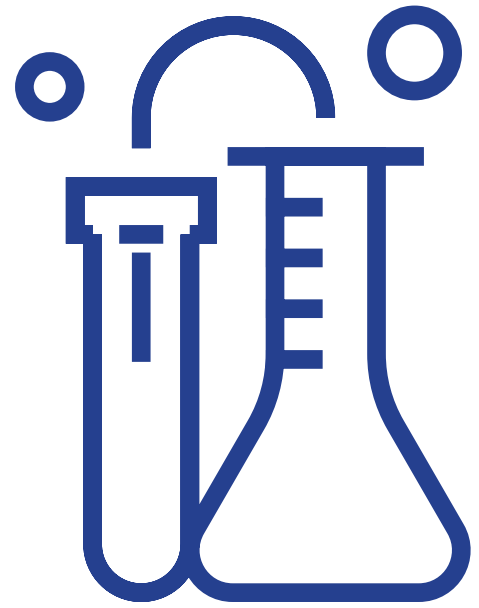
21,000 alumni in 94 countries



Innovation

29 collaborative agreements with industry signed in 2019

€3.3m research commercialisation funding in 2019



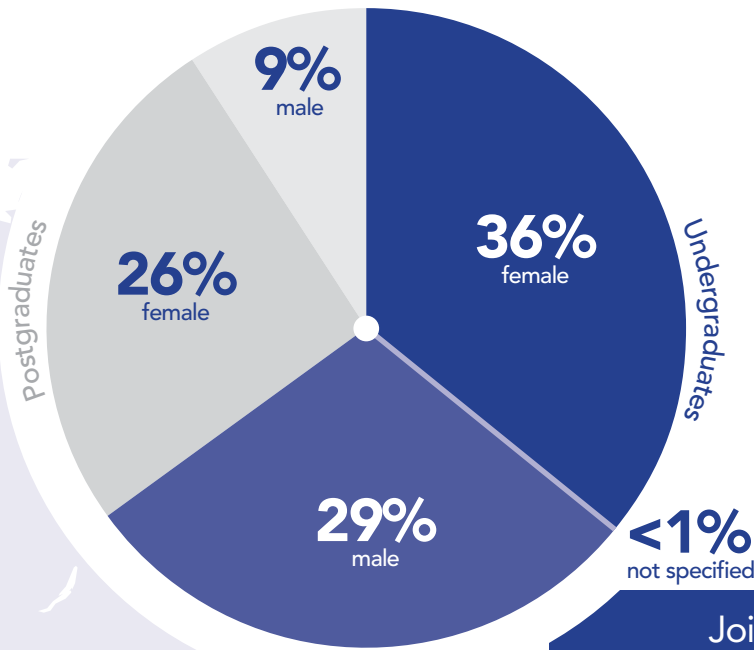
Research

€20.9m grants awarded 2019

Highest overall success rate on H2020 submissions of any Irish university

Citation impact:

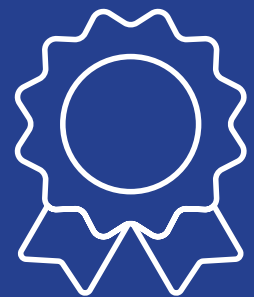
RCSI's normalised citation impact (2014-2018) is highest in Ireland and twice the world average



Joined **Age-friendly University Global Network**

Awarded the Ibec **KeepWell Mark**

Received **Green Flag** from An Taisce's Green Campus programme



Students*

4,094 registered students

2,377 undergraduate students (medicine, physiotherapy and pharmacy)

1,004 postgraduate students (Masters, MD, PhD)

* In Ireland

Chief Executive's review



Professor Cathal Kelly, Chief Executive/ Registrar

I am pleased to present this report on RCSI's activity during 2019/2020. The COVID-19 pandemic reshaped the year in a way we could never have anticipated.

Since 1784, our mission of education, research and service has guided our course. This holds true today more than ever. We remain dedicated to delivering world-class education to our students, to leveraging our research capability to respond to address key healthcare challenges and improve patient outcomes and to foster improvements in health and wellbeing in Ireland and across the globe.

From January, Professor Sam McConkey began alerting our senior management team to the need to think about business continuity in the event that there would be an outbreak of COVID-19 in Ireland. We quickly established a business continuity planning group and, from that day, our focus has been on continuing to deliver a world-class education experience in the midst of very challenging and ever-changing circumstances.

Education

Once it became clear that universities in Ireland would close for a period, our community mobilised rapidly, providing for the continuity of education of our undergraduate and postgraduate students, and equipping our staff to work remotely.

Our immediate priority was to ensure that our students who were due to graduate were able to complete their degrees so they could join the workforce to help meet the needs of our communities nationally and internationally.

For our final year medicine students in Dublin and Bahrain, this meant moving the clinical component of their exams forward by seven weeks. The logistical impact of this cannot be overstated and I am immensely grateful to our colleagues who made this possible. I am also hugely impressed with the manner with which our students coped with this change.

Our focus since has shifted to preparing for the 2020/2021 academic year. In early summer, we established a number of working groups tasked with establishing robust safety measures in order to protect the health and wellbeing of our students, while ensuring that the quality of their educational experience is not impacted.

We have made significant investment to ensure that students can enjoy an engaging on-campus experience. This includes substantial investment in health and safety measures and in creating a new

satellite campus at Croke Park, where over 650 students will continue their learning in smaller learning communities.

These new communities will see our students taught in small groups. Students will benefit from a more personalised learning experience and extracurricular/co-curricular activities will also be based around these learning communities. This initiative has accelerated an ambition that is at the heart of the transformation of our curricula that is currently underway and will underpin the transformational education our students will enjoy in the years to come.

Research

It has been inspiring to see the global research community respond to the pandemic and their collective knowledge and understanding of the virus has grown enormously. Here in RCSI, our researchers pivoted quickly to leverage their knowledge in response.

A number of our researchers were successful in securing funding from the national COVID-19 Rapid Response Funding Calls. For example, Professor

James O'Donnell is leading a study investigating why patients with COVID-19 develop blood clotting abnormalities; Professor Donal O'Shea is leading a project on facial PPE sterilisation; Professor Bryan Hennessy is investigating if COVID-19 infection can be detected using exhaled breath condensate and Professor Zena Moore is leading a project on preventing facial pressure ulcers in healthcare staff.

Despite the logistical challenges to research posed by COVID-19 pandemic, the RCSI research community had great success this year in terms of publications in top-tier journals, new industry partnerships and grant funding, particularly for clinical research and commercialisation. Our researchers published a total of 1,017 PubMed indexed articles in 2019 communicating research from a broad range of health science disciplines and achieved grant income of over €20 million and industry funding of over €2 million.

Society

As Ireland's only singularly focused health sciences university and the country's professional training body for surgery, we leveraged our expertise to support the health service and bring critical healthcare information to the public from the beginning of the COVID-19 pandemic.

Between March and July, the HSE established a network of contact tracing centres and developed a national training programme for contact tracers. Over 3,000 people registered with the HSE's national training programme which RCSI supported by quickly providing an e-learning platform to support nationwide online training and managed access to the platform.

This initiative has accelerated an ambition that is at the heart of the transformation of our curricula.



Pictured in December 2019 on the occasion of RCSI being authorised to use the title of university in Ireland are Professor Hannah McGee, Dean of The Faculty of Medicine and Health Sciences; then Minister for Education and Skills Joe McHugh TD; then Minister of State with responsibility for Higher Education Mary Mitchell O'Connor TD; and Professor Cathal Kelly, Chief Executive.

RCSI's Department of General Practice was involved in providing rapid evidence synthesis and reviews for the National Public Health Emergency Team in the Department of Health. At the request of the HSE, the National Office of Clinical Audit, based at RCSI, fast tracked the implementation of a national bed information system to provide real time updates on all ICU Bed occupancy/ availability across the healthcare system, public and private.

A number of RCSI experts have been prominent in advancing public understanding of COVID-19 through media and political engagement. RCSI Professor in Infectious Diseases Sam McConkey and Emeritus Professor in Population Health Ruairi Brugha have been among Ireland's leading voices on COVID-19 since it emerged last December and their media contributions and political briefings have greatly influenced public understanding and opinion. July 2019 marked 10 years of RCSI educating primary teachers in science through the Primary Science for Teachers initiative (PSTI). Over 300 teachers have participated since 2009, bringing science-based learning and activities back to the classrooms of over 6,000 students.

RCSI's Institute of Global Surgery is working with local partners to develop sustainable surgical care systems in low- and middle-income countries. In the past year the programme incorporated two new projects. The Quality and Process Improvement in Operating Theatres (QPOT) project is piloting in two busy hospitals in Tanzania and Ethiopia aiming to improve efficiency in surgical services and a new partnership with the College of Anaesthesiologists of Ireland and CANECSA (College of Anaesthetists of East, Central and Southern Africa) to address the deficit in access to anesthesia for surgical patients in Africa.

University status

In December, then Minister for Education and Skills Joe McHugh and then Minister of State for Higher Education Mary Mitchell O'Connor announced that RCSI is authorised to use the title of 'university' in Ireland. This announcement marked a significant milestone in our journey, recognising our impact on higher education in Ireland and internationally. The title university will significantly contribute to our

continuing efforts to attract excellent students, researchers and staff and build our partnerships and reputation internationally.

University rankings

Our number one ranking for 'Good Health and Well-being' in the Times Higher Education University Impact Rankings 2020 was a fitting recognition of our ongoing work to improve health and well-being in the community. This recognition of our contribution to health and well-being was particularly meaningful for the RCSI community at a critical time for global health and as our staff and students faced, as they continue to, the challenges of working and training in support of the health service during the pandemic. RCSI is a signatory to the UN Sustainable Development Goals accord and you will see how we contribute to these global objectives throughout this report.

In the 2020 Times Higher Education World University Rankings, we maintained our strong position in the top 250 universities in the world. In an increasingly competitive global education environment, this performance is testament to the commitment and innovation of our students, faculty, researchers and professional staff.

Thank you

This year, more than ever, I am immensely proud to be a graduate of, and now CEO, of this University.

We have a duty to support our healthcare systems around the world by training the next generation of expert healthcare professionals who can join the workforce at this crucial time for global health. With the patient at the centre of everything we do, we remain dedicated to driving research which contributes to the global response to the virus and we stand ready to serve Ireland's national effort in every way we can.

Recalling our final year medicine students who coped admirably with their exams being moved forward, I was impressed with and inspired by their resilience. They give me great hope that the next generation of healthcare leaders are exceptionally professional and resilient. A large number of people are involved in educating our students and trainees. To the patients, clinicians and staff of our teaching hospitals, thank you for your ongoing contribution and generosity.

The adaptability and collegiality of our staff gives me great confidence for the future of RCSI. I want to thank each and every one of them for their efforts and good humour in dealing with the challenges of a year that none of us will ever forget.

Finally, I extend my heartfelt thanks to Mr Kenneth Mealy for the commitment and support he demonstrated during his tenure as RCSI President. I also extend my gratitude to my colleagues on the Senior Management Team, and the RCSI Council, for their ongoing support and guidance.

Our researchers pivoted quickly to leverage their knowledge in response to the pandemic.

Senior management team



Professor Cathal Kelly
Chief Executive/ Registrar



Jennifer Cullinane
Director of Finance



Eunan Friel
Managing Director of
Healthcare Management



Aine Gibbons
Director of Development,
Alumni Relations, Fellows
and Members



Barry Holmes
Director of Human Resources



Abi Kelly
Director of International
Engagement and External
Relations



Professor Hannah McGee
Dean of the Faculty of Medicine
and Health Sciences



Michael McGrail
Director of Corporate Strategy



Professor Fergal O'Brien
Director of Research and
Innovation



Justin Ralph
Chief Technology Officer

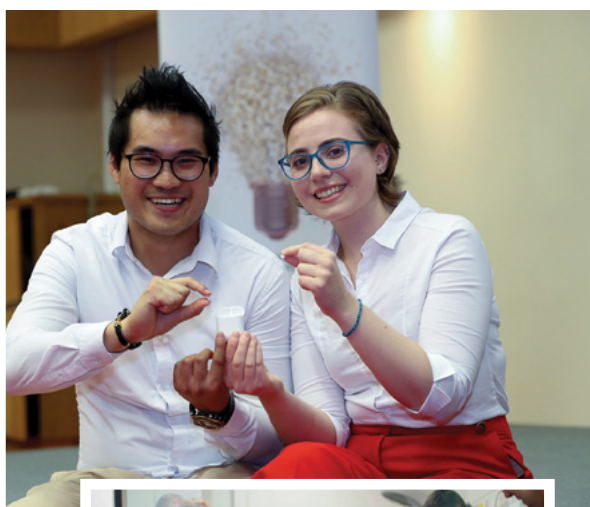


Kieran Ryan
Managing Director of Surgical
Affairs

A year in pictures

July

Medical students take part in the Student Innovation Challenge at the 10th RCSI Research Summer School.



September

RCSI welcomes more than 560 new students during Orientation Week.



November

Former US Ambassador to the UN Samantha Power receives the Emily Winifred Dickson Award.



August

Alumni visit the simulation suite at 26 York Street during the Alumni Gathering celebrations.



October

Audience members enjoy participation in an RCSI MyHealth Lecture on arthritis and joint health.



December

RCSI celebrates authorisation to use the title of university in Ireland.

January

800 second-level students from across Ireland visit for the annual Open Day.



March

Portraits unveiled of nine trailblazing academic leaders by photographer and RCSI Art Award winner Amelia Stein.



May

Dr Caolán Reid celebrates graduating from the School of Medicine virtual conferring ceremony with his children.



February

WHO Director-General Dr Tedros Adhanom Ghebreyesus receives Honorary Fellowship of the RCSI Faculty of Nursing and Midwifery.



April

Dónal Roche who achieved first place in final year medicine celebrates the first RCSI Virtual Results Day with his parents.



June

Medical student and captain of Dublin's camogie team Róisín Baker takes to the pitch in Croke Park, a new satellite campus for RCSI.

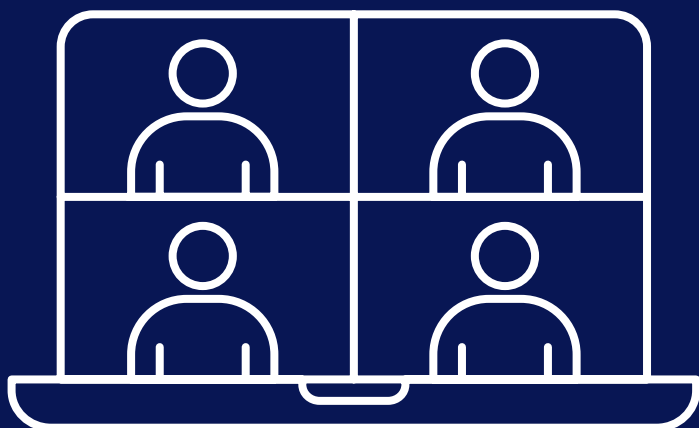
“ The robotic surgery fellowship will enable me to treat patients with advanced pelvic cancer and support my progression to consultant. ”

Ms Ailín Rogers, Fellow of RCSI (2019), General and Colorectal Surgeon and recipient of Ireland's first PROGRESS Women in Surgery Fellowship.

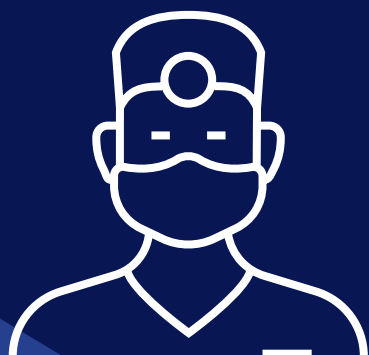


01

Surgery



Weekly webinar series
to update surgical
teams on COVID-19



74

Core Specialty
Trainees in
Emergency
Medicine



123

Core Surgical
Trainees



46

Advanced Specialty Emergency
Medicine Trainees

**2 Higher
2 Surgical
6 Trainees**



573

Continuous Professional
Development Support
Scheme participants

Surgery



Kieran Ryan
Managing Director, Surgical Affairs

With the advent of the COVID-19 crisis, we have witnessed the emergence of an extraordinary global public health challenge. While adhering to COVID-19 restrictions, the Department of Surgical Affairs has adapted and reimaged its services to provide optimum support to our colleagues on the front line.

As the community of healthcare professionals and society at large works together to understand and address COVID-19 and its impacts, our objective has been to provide clarity, guidance and a comprehensive suite of resources for surgical trainees, surgeons in practice and their patients.

As the COVID-19 crisis spread across the world during February and March 2020, the Department of Surgical Affairs was embarking on what is traditionally one of our busiest periods, driven in particular by the process of selecting trainees to our national programmes in both Core Surgical Training and Higher Training.

We were conscious that our trainees would face unprecedented challenges when COVID-19 patients reached the hospitals, exacerbated by factors such as heavy demands on ICUs, disruption of normal services and an anxiety around the virus itself. Therefore, with the crisis looming, we took the decision to bring forward trainee interviews and selection by three weeks in order to protect the integrity of the process and ensure it was completed satisfactorily.

Our objective has been to provide clarity, guidance and a comprehensive suite of resources for surgical trainees, surgeons in practice and their patients.

The selection process commenced at the earlier date of Friday, 6 March, and was completed on Saturday, 14 March, in advance of Taoiseach Leo Varadkar announcing the lockdown in Ireland on 27 March. The quality of the process was maintained and subsequent feedback was excellent. In total, 60 core surgical trainees and 43 higher surgical trainees were appointed, with all available places being filled.

This initiative was marked by a co-operative approach from all concerned and an enhanced sense of togetherness. Its success was a testament to the hard work, pragmatism and dedication of the specialties, the trainers and the trainees, as well as the commitment and expertise of the Surgical Affairs team and the IT team in RCSI.

Continuity of supports and services

With the advent of the lockdown in Ireland, appropriate steps were taken to ensure that working from home was supported for all 70 staff within Surgical Affairs. Our IT systems were configured to optimise remote access, while equipment and laptops were supplied to employees as required.

This enabled us to mitigate the disruptive effects of the lockdown on day-to-day activities, ensuring that processes such as the appointments of trainees to their posts and administrative work such as the planning of rotations could proceed.

Protecting trainee progression

In response to the cancellation of surgical lists and outpatient clinics, as well as the cancellation of the MRCS and FRCS examinations, we moved to quickly reassure trainees that these extraordinary circumstances would be fully taken into account in relation to their progress through the training pathways.

Discussions with employers, regulators and agencies



Pictured at the 2020 National Surgical Skills Competition for medical schools across the Island of Ireland are (l-r) Mr Kenneth Mealy, President; Sarah Shanahan (second place); Ms Leonie Heskin Simulation Technology Development Lead in Postgraduate Surgical Education; Michael Towers, (third place); Prof. Oscar Traynor, Professor of Postgraduate Surgical Education; and Abidur Rahman, winner of the competition.

involved in the delivery of surgical training regarding promotion, competency and assessment were initiated and are ongoing to ensure that trainees are not disadvantaged. We have been working closely with the JCST (Joint Committee on Surgical Training), the advisory body to the four surgical Royal Colleges of Ireland and the UK, for all matters related to surgical training to mitigate to the greatest extent possible the impact of COVID-19 on training delivery.

All the bodies involved in surgical training are working together to find the safest and most pragmatic solutions to the current situation. Detailed plans are being prepared to address all foreseeable contingencies, and we are continually updating information on all aspects of training, with a view to providing trainers and trainees with the greatest possible levels of clarity and certainty.

Surgical Bootcamp

The delivery of the annual summer Surgical Bootcamp, an intensive tuition in basic surgical skills and basic management principles for surgical patients, was reimagined to align with COVID-19 restrictions.

The Surgical Bootcamp trainers and education leads adapted the training elements of the programme and the accompanying lecture-based content for delivery online.

Innovative, take-home skills kits were provided, whereby trainees were supplied with essential equipment that enabled them to practice skills at home while being guided, observed and instructed online by

trainers. Face-to-face clinical skills work that could not be delivered via digital platforms took place in RCSI in July. The commitment and hard work of all concerned ensured that Surgical Bootcamp was completed in full and in compliance with COVID-19 restrictions on social distancing.

One of the most significant developments that arose from our COVID-19 response was the accelerated adoption of digital platform solutions, driven by our surgical specialities, to address training challenges presented by the pandemic. These digital solutions proved highly effective and are set to become a more permanent feature of training delivery into the future.

Supporting surgeons in practice

As the community prevalence of COVID-19 fell, the demands on critical healthcare resources declined from May onwards, and the risk of acquiring COVID-19 in the perioperative period also declined. The RCSI National Clinical Programmes in Surgery and Trauma and Orthopaedics worked with the HSE and the Department of Health on developing guidelines for a phased return to planned surgical services while also formulating a recovery plan. The acute hospitals subgroup of the Expert Advisory Group to the National Public Health Emergency Team (NPHE), which Professor Deborah McNamara, Joint National Clinical Lead, National Clinical Programme in Surgery (NCPS) sits on, developed protocols for elective surgery pathways, which NPHE approved.

Measures were implemented to minimise the risk of acquiring COVID-19 through careful planning of patient pathways, screening of patients prior to surgery and thorough discussions with patients of the additional risks involved. Guidance on these matters was developed by the NCPS and RCSI, and this detailed guidance was regularly updated on the RCSI website.

Curated resources

The Department of Surgical Affairs collated a series of curated resources for surgeons in practice, trainees and other professionals involved in frontline patient care during the COVID-19 epidemic. The suite of resources was, and continues to be, reviewed and updated regularly to address the evolving circumstances.

All the bodies involved in surgical training are working together to find the safest and most pragmatic solutions to the current situation.

As part of this suite of initiatives, RCSI hosted a weekly webinar series that updated surgical teams on the latest developments and their implications for surgical practice. The series commenced in April. The webinars facilitated a sharing of experiences and expertise, providing valuable information and updates on: adaptations in surgical practice to deal with COVID-19, the type of patient presentations that were being seen, and the challenges faced by the different specialties in organising patient services and dealing with emergencies.

The series proved highly successful and will be established as a permanent service beginning in September 2020.

Other resources provided include:

- publications and national guidelines on the evolving management of patient and safety precautions to be taken by surgeons during the COVID-19 pandemic, developed by RCSI National Clinical Programmes, in conjunction with individual and institutional partners;
- the collation of a selection of resources on COVID-19 by the RCSI Library, including search strategies for medical databases, government websites and national healthcare websites; and,
- GP-Surgeons Connect, an initiative by RCSI and the ICGP which provided rapid connection of GPs with surgeon advisors to enhance facilitation of safe management of their patients – the service operated for 12 weeks during the height of the COVID-19 emergency.



Pictured at RCSI's Charter Day Meetings in February 2020 were Mr Kenneth Mealy, President; Laura Magahy, Executive Director of Sláintecare Implementation Office; and Dr Tony Sparrow, President, Royal Australasian College of Surgeons.



Mariam Gasim and Dr Yazan Mammud (MRCSI) pictured at the July 2019 Conferring Ceremony

Positive mental health

RCSI recognises that healthcare professionals will face many stressful situations during and after the COVID-19 crisis and has facilitated access to resources that can provide support in ensuring

that individuals can cope and be at their best, personally and professionally. These include a guide to websites providing relevant information and advice, access to health and well-being podcasts and videos, and a guide to online self-help groups.

The Department of Surgical Affairs collated a series of curated resources for surgeons in practice, trainees and other professionals involved in frontline patient care during the COVID-19 epidemic.

Beyond the COVID-19 response

While the reporting period was dominated by the impact of the COVID-19 pandemic and our responses to the challenges it has presented, we continued to deliver, where possible, significant advances in our strategic objectives for surgical training and practice.

Mentorship programme for trainees

In February 2020, we launched a mentorship programme for trainees across all the specialties. Developed in consultation with the Irish Surgical Training Group, the programme represents an expansion of a mentorship initiative that had been running in the trauma and orthopaedics specialty for some years.

RCSI welcomed the first intake to the Masters in Surgical Science and Practice degree programme.

The working group that drove this initiative was chaired by Mr David Moore, Council Member and Orthopaedic Surgeon, and the programme proved to be a positive and timely development, particularly in light of the COVID-19 crisis. The programme provides opportunities for trainees to engage with senior people who can help guide them in decisions around their career choices in these uncertain times.

PROGRESS Women in Surgery Fellowship

In February, Ms Ailín Rogers, FRCSI, was announced as the recipient of the first PROGRESS Women in Surgery Fellowship. The award will enable Ms Rogers to commence a fellowship at the Royal Marsden Hospital in London in robotic colorectal surgery and multi-visceral resection for advanced pelvic malignancy. This prestigious new bursary, funded by Johnson & Johnson Medical Devices Companies, aims to give women surgeons the opportunity to gain exceptional experience in their chosen field, supporting their progression to consultant.

Masters in Surgical Science and Practice

In September 2019, RCSI welcomed the first intake to the Masters in Surgical Science and Practice (MSSP) degree programme. The inaugural class completed the MSSP programme in May 2020. Designed and led by Professor Oscar Traynor, the programme covers the entire curriculum for Core Surgical Training, as defined by the Intercollegiate Surgical Curriculum Programme, in one year.

»» Read about the Institute of Global Surgery on page 60

»» For RCSI Postgraduate Surgical Awards 2020, see page 91



Christina Buckley, Specialist Trainee

I am a Plastic Surgery Specialist Registrar in my penultimate year of Specialist Training (ST7).

Initially the COVID-19 pandemic brought about a huge change in surgical practice with an initial complete halt in operative activity as well as instantaneous virtual outpatient practice. Thankfully, a large percentage of surgical trainees were in a position to operate alongside their consultants in private institutions and model 3 hospitals during the outsourcing of elective surgical work during the pandemic which allowed some semblance of ongoing training. However, deferral of Intercollegiate examinations and fellowship opportunities abroad have negatively impacted a significant number of surgical trainees. Overall, as this pandemic continues to affect every aspect of life, the real impact of COVID-19 on surgical training remains to be seen over the coming years.

During the COVID-19 pandemic earlier this year, I was President of the Irish Surgical Training Group. The Department of Surgical Affairs in RCSI through Kieran Ryan and Padraig Kelly offered ongoing and genuine support to the entire surgical trainee group. They regularly liaised and updated us on current issues and events as the pandemic unfolded. A COVID-19 resource hub was rapidly established which provided a series of helpful resources for surgeons as well as a weekly webinar series on the most up to date information regarding COVID-19. RCSI specifically hosted a webinar on how to sustain surgical training during the COVID-19 pandemic which allowed the trainees to give their perspective in this very important conversation.

RCSI's commitment to searching for solutions over the coming months to ensure that no surgical trainee will be disadvantaged by the implications of COVID-19 has been very reassuring during this uncertain time.

“The teaching faculty and the wider RCSI community worked vigorously to ensure the seamless transition from face-to-face teaching to online lectures.”

Emma Horan,
Physiotherapy Student, Class of 2020



02

A
transformative
learning
experience



Virtual TeleSim
programme to simulate
clinical undergraduate
training

Accelerated development
of learning communities



70 faculty
'super-users'
to enhance
delivery of
technological
solutions



100%
return rate to
undergraduate
census in
COVID-19 crisis

1st
virtual International
Education Forum

3,500

one-to-one personal
consultations with
CoMPPAS team

A transformative learning experience



Professor Hannah McGee
Dean of the Faculty of Medicine and Health Sciences

The Faculty of Medicine and Health Sciences adapted to the impact of COVID-19 quickly and effectively to maintain continuity of education across its Schools.

A transformative learning experience



In November 2019 medical student Suaad Alshleh was awarded the Professor William C Campbell Bursary, which recognises the work of the Donegal Nobel Prize winner, by then Minister for Education and Skills Joe McHugh TD.

A fast, effective response

When COVID-19 measures were implemented, the faculty was optimally positioned to maximise online availability of educational programmes and student services. This was facilitated to a great extent by RCSI's long-standing pro-active technology policy which encourages early adoption of innovative solutions, exemplified by initiatives such as the provision of a laptop for every student.

Another factor that accelerated adaptation to the new 'normal' was the establishment of a 70-strong group of tech-adept colleagues across the faculty.

These 'super-users' acted as a bridge between the IT Department and the wider academic and professional staff, enhancing the efficiency of our delivery of technological solutions.

The imagination and tenacity demonstrated by faculty staff in supporting students, particularly those facing final examinations and completing degree courses, were crucial factors in the success of our COVID-19 response. Those qualities, for example, underpinned the decision to fast-track our clinical examinations in order to ensure that students graduated as safe and capable health professionals. Our students reacted to this extraordinary, but necessary, measure with forbearance and flexibility, illustrating the depth of trust between them and our clinicians, academics and professional staff. Reflecting the serious commitment of all concerned, the main final clinical examinations for medicine were completed by 12 March, prior to the introduction of the Irish Government's COVID-19 measures.

Dedication to excellence

Attaining a long-held objective, RCSI was granted university status in December 2019. All of the Schools at the Faculty of Medicine and Health Sciences contributed to this success, not only

during the years since the granting of degree-awarding status in 2010, but through decades of consistent accomplishment. The volume and standard of the National Qualifications Framework Level 9 and Level 10 research degrees were particularly important in this landmark achievement and the School of Postgraduate Studies is to be commended for its contribution.

The delivery of Transforming Healthcare Education Project (THEP) 2, scheduled for September 2022, advanced significantly, driven by the third annual planning workshop held in October 2019, and the Ninth International Education Forum held in June 2020, which focused on innovation in education. The Forum took place in a virtual format that was very successful. Increased accessibility and engagement for more of our colleagues in international sites was a benefit of this format and a good lesson for the future.

Honorary Doctorates

RCSI Honorary Doctorates are awarded to recognise people who have made an outstanding contribution to society and each recipient makes a commencement address at the RCSI graduation ceremony to inspire our new graduates. Two honorary doctorates were conferred at Postgraduate Academic Award ceremonies in November 2019.



Professor Adrienne Flanagan was honoured for her research contributions to the molecular classification for primary bone tumours resulting in the introduction of diagnostics markers, which are now used globally. A graduate of RCSI (Medicine, 1981), she is Head of Academic Pathology at UCL, Clinical Lead for the London Sarcoma Service and the Royal National Orthopaedic Hospital and Head of the Bone Pathology Network UK.



Dr David Ansell was recognised for his research and advocacy to eliminate health inequities. Dr Ansell is the Presidential Professor of Internal Medicine and Senior Vice President/Associate Provost for Community Health Equity at Rush University Medical Center in Chicago. His books include "County: Life, Death and Politics at Chicago's Public Hospital" and "The Death Gap: How Inequality Kills."



Javed Machikan, Medicine, Class of 2020 and RCSI Student Union President

Much like the butterfly effect, many seemingly minute decisions can go on to change your life forever. RCSI's decision to expedite our final medical exams brought with it a hurricane of emotions and events that swept across, not only the class of 2020, but across Ireland as a whole.

I still remember hearing the Head of School of Medicine saying that our final med exams will be in three days and the feelings of fear and despair that ensued. It is only in retrospect that I realise the courage and foresight needed to make such a bold decision.

By allowing us to complete our exams months in advance, RCSI guaranteed that we would not only be able to graduate on time but more importantly be ready for the impending pandemic.

The latter feat was far more important to my classmates and I. We felt so frustrated knowing that our fellow healthcare workers were being overwhelmed by the health crisis of a lifetime, yet we were only one step away from joining them on the frontlines.

Over the past few years and certainly the past few months, RCSI has taught me what it actually means to be leaders in healthcare. And, although I never got my chance at a formal graduation, I truly felt more pride walking into Connolly Hospital on my first day as a doctor, than I ever would walking across any stage.



Professor Arnold Hill
Head of School of Medicine

School of Medicine

In unprecedented circumstances, the School of Medicine has acted with decisiveness and agility, adapting to the challenges presented by the spread of COVID-19 while identifying opportunities to accelerate the delivery of a transformed healthcare education experience for students.

Pragmatic response

In early February, expert opinion on the implications of the spread of COVID-19 led us to take the unprecedented step of bringing forward final examinations for our medical students. The move was taken to minimise disruption to educational continuity, avoid delays in the graduation of the final year class and ensure the examination process proceeded in a safe and orderly manner.

Our students responded with a positive, pragmatic attitude that facilitated the successful graduation of the class of 2020 and enabled them to join the frontline of healthcare as qualified doctors to help combat the global pandemic. It was an inspiring example of the University's ability to adapt even in the most challenging circumstances.

Extraordinary contribution

In April, echoing the adaptability and dedication shown by our final year students, a group of more than two dozen RCSI medical students volunteered to work alongside frontline healthcare workers caring

for COVID-19 patients in intensive care units in Beaumont and Connolly hospitals. Their primary role was to administer the prone positioning technique, completely repositioning intubated patients by lifting and turning them every 16 hours, thereby helping them breathe more easily.

When the volunteers were stood down after three months as circumstances improved, the intensive care unit clinicians whom they had worked alongside commended their selfless contribution.

Transforming learning

While COVID-19 has presented many challenges, it has also accelerated several of the educational initiatives that were already under consideration or underway within the first part of the two-phase Transforming Healthcare Education Project (THEP). For example, we have ramped up the development of learning communities, whereby the traditional class is reimagined as a collection of small communities, with the students within each community progressing together for the duration of their RCSI experience. We have taken the opportunity, inadvertently presented by the COVID-19 crisis, to drive the implementation of small group teaching in recent months, and all tutorials are now limited to a maximum of three students.

The impact of the pandemic has only served to underline the critical importance of the transformative direction we have taken with THEP. Inevitably, some elements of the next phase of THEP will differ from what was planned prior to COVID-19. However, the strategic vision that drives the project has demonstrated its fitness for purpose during the last four months and will guide us as we pilot key initiatives in preparation for delivery of THEP 2 by September 2022.

It was an inspiring example of the University's ability to adapt even in the most challenging circumstances.



Professor Tracy Robson
Head of School of Pharmacy
and Biomolecular Sciences

School of Pharmacy and Biomolecular Sciences

The past academic year has been one of significant change with the merger of the School of Pharmacy with the Department of Molecular and Cellular Therapeutics to become the School of Pharmacy and Biomolecular Sciences.

The merger has created a critical mass of teaching and research, allowing it to further evolve into a vibrant centre for the education of tomorrow's leaders. The school has developed a new five year strategic plan, focused on growth and complementing the wider RCSI Strategy. The school is committed to becoming one of the leading centres for pharmacy and health sciences education.

The School has now rolled out the final year of the MPharm programme, with students undertaking post-graduate level, full-time taught modules before embarking on an eight-month period of patient-facing experiential learning. During their time on placement, our students rose to the challenge of being frontline workers during the COVID-19 pandemic. Acknowledged by the Pharmaceutical Society of Ireland (PSI) as core members of the pharmacy team, students opted to work additional hours to provide healthcare services. We are very proud of our students and have worked with APPEL and the other schools of pharmacy to redesign the final Professional Registration

Exam so that they will be able to safely undertake their final assessment and enter the workforce as the first graduates from the five-year integrated MPharm Programme. Similarly, the final year of the National Pharmacy Internship Programme was completed, and provisions were made for the final Professional Registration Examination for these students.

During this time, the MPharm Programme underwent full accreditation, and the PSI continued to grant recognition of the programme for the maximum five year period. The accreditation team commended the evidence-informed approach to curriculum development, the state-of-the-art simulation suite and the commitment of simulation suite staff in supporting the school in its plans for innovative teaching. The team also commended the range of research opportunities for students and the positive and collaborative relationships evident between staff, reflecting the success of the merger. Our innovations in teaching were also recognised by the National Forum for Teaching and Learning in Higher Education through the award of Ireland's inaugural Teaching and Learning Research Fellowship to Dr Michelle Flood.

The school had a rapid response to the COVID-19 pandemic. The staff of the School worked tirelessly to ensure academic standards were maintained in accordance with QQI and PSI requirements, balanced with a no detriment approach for students. We continue to plan for the safe return to education for all our students, and are committed to providing an engaged learning environment.

As part of its growth phase, the School of Pharmacy and Biomolecular Sciences is building on our significant research and teaching expertise to develop new innovative programmes for postgraduate students. These programmes will give further options to students to upskill for roles in the pharmaceutical and biopharmaceutical industry or act as a pathway to PhD research. Similarly, other programmes will offer development opportunities for healthcare professionals to prepare them to face the challenges of an increasingly complex healthcare environment. International outlook is important to us, and we continue to pursue our collaboration with Soochow University, China, through delivery of our international Clinical Pharmacy programme as well as broadening our joint educational offerings.



MPharm student, Aoife Ni Mhuircheartaigh, providing frontline care while on her Year 5 placement.



Professor Suzanne McDonough
Head of School of Physiotherapy

School of Physiotherapy

Over the next five years, the RCSI School of Physiotherapy's mission is to become a leading centre for physiotherapy education and research, facilitated by a transformative learning experience for students and underpinned by research that innovates our educational delivery and generates the clinical evidence to enhance people's health and improve the quality of healthcare delivery.

Innovation in teaching

The COVID-19 pandemic has rapidly accelerated our innovation plans for digital delivery, with staff upskilling their use of online tools and excellent levels of engagement by physiotherapy students. Our final year students were the first cohort of physiotherapy students in Ireland to complete their exams; they received their results on Friday, 1 May – five weeks earlier than planned.

This academic year also saw the introduction of two horizontally integrated, 10 credit Neuromusculoskeletal (NMSK) modules in First Physiotherapy. These modules combined learning outcomes from pre-existing smaller modules to form a new progressive curriculum, enabling a systems-based approach with a focus on case-based learning. The NMSK modules were designed to be assessed by a single integrated

Objective Structured Clinical Examination (OSCE), presenting a series of clinical cases, creating better alignment with clinical practice. Due to COVID-19, the planned NMSK2 OSCE was revised to an online multiple-choice question (MCQ) exam, retaining fidelity to the original planned OSCE by including case-based questions.

Enhanced experiential learning

The school is committed to becoming a centre of excellence for the use of simulation training for physiotherapy education in Ireland, in collaboration with the Department of Simulation. Dr Orlagh O'Shea has been awarded Irish Research Council New Foundations funding to develop a framework to adapt existing models of "Simulation-based learning for Clinical Education of Physiotherapists in the Ireland". This work has been extended to address the challenges the school faced concerning COVID-19. Immersive simulated placements will expose students to clinical scenarios across core areas of physiotherapy (neurology, musculoskeletal, respiratory and care of the elderly). The school will be testing the effects of this innovative mode of experiential clinical learning on students' readiness for clinical placement in October 2020. This adds to the school's current use of simulation to provide a valuable student learning experience in respiratory practice and communication skills training.

Research environment

A key focus in the school this year has been to enhance the research environment, as evidenced by seven grant awards (€1,690K), nine Physiotherapy PIs, four PhD students registered and one completed, five contract research staff and 31 published papers, with 28% of these in the top 10% of journals, and international collaboration evident in nearly 50% of our work.



Physiotherapy graduates Sarah Madden; Daniel Campbell Lee; Rebecca Gallagher; Brian O'Rourke and Sinéad Kinsella pictured celebrating their conferring in November 2019.



Video training resources on wound management and pressure ulcer prevention for COVID-19 patients were produced in collaboration with the School of Nursing and Midwifery in April 2020.

Centre for Simulation Education and Research

The Centre for Simulation Education and Research continues to deliver innovative and future-focused curricula across undergraduate and postgraduate schools.

In November 2019, the centre hosted a site visit for Innovations in Training, an exclusive cross-industry international event that gives insider access to

During the shutdown, the centre continued to support essential training for healthcare professionals, including the induction of 180 new interns.

cutting-edge learning organisations, people and technology. The event showcased how RCSI is preparing the healthcare leaders of tomorrow through high-fidelity, team-based scenarios and multidisciplinary skills training.

Simulating clinical experience

Containment measures introduced worldwide to flatten the curve of the COVID-19 pandemic demanded the removal of students from clinical sites and immediate conversion to online delivery. The department developed a virtual “TeleSim” programme, including telephone and video consultations with simulated patients, online skills tutorials with equipment couriered to individual students and live video feedback on task performance. During the shutdown, the centre continued to support essential training for healthcare professionals, including the induction of 180 new interns and production of several instructional videos, including training on prone positioning in association with the School of Nursing and Midwifery.

Clinical placement for undergraduate students poses a significant ongoing challenge. The centre is collaborating closely with colleagues to optimise blended learning solutions with virtual learning and on-site simulation to enrich learning experiences and deliver innovative and future-focused curricula.

Postgraduate skills

The Masters in Surgical Science and Practice (MSSP) had a very successful first year delivering the entire curriculum for Core Surgical Training through simulation.

Some models required for surgical skills training are unavailable commercially and therefore require in-house design, development and fabrication. To date, the team, in collaboration with faculty, have successfully completed 43 model projects, totalling about 1,100 individual units. These new models enable trainees to practice procedures on biological tissue, which is significantly more realistic in terms of haptic feedback and represents a cost saving of around €10,000 per year compared to synthetic models.

Following the campus closure as a result of COVID-19, the centre supported research for surgeons in the use of PPE breathing apparatus during surgery and upskill training on the use of ventilation equipment.



Professor Zena Moore
Head of School of Nursing
and Midwifery

School of Nursing and Midwifery

As Ireland's only exclusive postgraduate nursing and midwifery school, we hold a deep professional responsibility to enhance human health through endeavor, innovation and collaboration in education, research and service.

Thus, we are focused on developing the practice, educational and research capabilities of motivated nurses and midwives. With a staff of 20, the school delivers 24 different education programmes to over 650 students, reflecting the diverse clinical specialties that are relevant to the field of today's nurses and midwives. In response to the pandemic, we moved to fully online teaching, including research supervision, competency assessment and student feedback. Students actively embraced the changes in education delivery, demonstrating resilience, flexibility and a commitment to successfully completing their studies.

Staff at the school are actively engaged in innovative research in the field of wound care. In collaboration with our international research partnerships in Australia, Norway, Belgium, Germany and the UK, we strive

to generate high quality evidence that has a direct impact on daily policy, practice and patient care, both nationally and internationally. Following on from the successful launch of the Skin Wounds and Trauma (SWaT) research centre in 2018, this year saw the launch of the SWaT network, recognising that collaboration between clinicians, academics, researchers and industry is fundamental to achieving our goals. The SWaT network brings together a wide range of clinical and academic specialists needed to drive scientific breakthroughs, innovations and insights in the field of wound healing and tissue repair.

During the COVID-19 pandemic, it became apparent that health care staff were suffering facial injury from the prolonged use of personal protective equipment. In response, the 'comfort for carers' campaign was launched. We developed an easy-to-use, 5-step care bundle, delivered to our clinical colleagues in the hospital group. The care bundle successfully reduced the incidence of skin injury, and staff reported it easy to use, safe, and effective. The campaign was made possible through fundraising and industry involvement, led by the RCSI Development Office.

In these challenging times, we are deeply humbled and indebted to our nursing and midwifery students who have shown extraordinary dedication and commitment, not only to clinical practice, but also to further developing their knowledge and skills. It is in this way that these nurses and midwives continue to play a key role in leading the world to better health.

During the COVID-19 pandemic, it became apparent that health care staff were suffering facial injury from the prolonged use of personal protective equipment.



Natalie McEvoy, PhD candidate School of Nursing and Midwifery

Using the competencies I have built through my PhD, as the Clinical Research Nurse in the Department of Critical Care and Anaesthesia, I was able to rapidly harness my skills and mobilise them to get clinical research studies started promptly in response to the current pandemic.

I am proud to be part of the wider multidisciplinary team including nurses, scientists, and clinicians who are conducting the first investigational medicinal product trial approved in Ireland to test a therapy for COVID-19. I have also been a part of a number of observational research projects in relation to COVID-19, including one focussed on the prevention of facial sores among healthcare staff using personal protective equipment.

Our research directly affects the outcomes for critically ill patients. This is why I come to work every day, and is why I enjoy my job so much. It is also the reason why I decided to undertake a PhD, to produce high quality evidence based results that translate into everyday interventions for patients. More and more nurses and midwives are undertaking PhDs, and in the 2020 WHO Year of the Nurse and Midwife, the contribution nurses and midwives make to the lives of patients has never been more evident.



Physician Associates Michael Tracey, Rachel Malone and Michelle Kirwan in the COVID-19 testing hub at Beaumont Hospital.

Physician Associate Studies

The MSc Physician Associate (PA) Studies mission is to provide world class education, designed to produce competent and professional physician associates with a focus on integrating the PA role in the Irish healthcare system.

Physician Associates (PAs) are highly skilled healthcare professionals who work with doctors as a member of a medical or surgical team in a wide variety of settings, including hospital, surgical theatre, GP practices, and community health services.

The MSc in Physician Associate Studies, launched in 2016, is open to applicants with a Level 8 health science or science-related degree. Physician Associate students come from diverse backgrounds with experience in healthcare and the health sciences. Since then, five cohorts totaling 52 students entered the rigorous two year, full-time programme.

The virtual conferring ceremony, held on 29 May 2020, included nine new graduates from the PA programme, bringing the total number of qualified PAs to 29. An additional 10 students are scheduled to complete the programme in early January 2021 with 14 students transitioning from their didactic phase into their clinical training year. MSc Physician Associate Studies looks forward to expanding the programme when it welcomes a new cohort of 20 students in mid-January 2021.



**Professor
Niamh Moran**
Head of School of
Postgraduate Studies

School of Postgraduate Studies

The School of Postgraduate Studies aims to be a leading centre for postgraduate education, research and scholarly activity in medicine and health sciences. Our main strategic objectives are to enrich the postgraduate scholar experience and to grow postgraduate research scholar numbers. We also manage postgraduate scholar records and support all taught postgraduate programmes.

The school oversees the quality and progression of all higher degree research projects in RCSI, in collaboration with our excellent academic research supervisors. We recently developed the researcher training provision, a core element of research degrees at RCSI, into a credit-bearing award that has helped underpin successful EU Horizon 2020, Marie-Curie Innovative Training Networks (ITN), and SFI Research Centre bids. By ensuring that RCSI postgraduate research scholars have the requisite knowledge, skills, experiences and attitudes, we equip our graduates with the tools to thrive as professionals and to make a meaningful contribution to healthcare in their community.



Dr Emer Reeves with scholars Dr Thomas McEnery (MD), Dr Padraig Hawkins (PhD) and Dr Oliver McElvaney (PhD) and the November 2019 conferring ceremony.

Postgraduate studies in COVID-19

During the COVID-19 pandemic, we introduced and optimised a process for online viva voce examinations using MS Teams. 12 MD and PhD candidates (NFQ 10) were examined in this format (March – June 2020).

All core postgraduate modules are now available online. We have introduced weekly newsletters and a weekly online forum to ensure our scholars are kept informed during the COVID-19 changes to work access.

PhD Thesis-by-Publication has been enthusiastically adopted by scholars, with seven successful examinations using this format since it was introduced in January 2019.

Achievements

In March 2020, we reported to the HEA that 49 scholars graduated with higher degrees by research, comprising 31 PhD, 7 MD and 11 MSc. In June 2020, at an online graduation ceremony, a further 24 graduates were conferred (13 PhD, 7 MD, 3 MSc, 1 MCh). The first Dilmun PhD Scholar, from RCSI Bahrain, graduated in this cohort.

78 first year scholars registered for higher degrees by research (March 2020, HEA report), comprising 44 PhD, 19 MD and 15 MSc.

The RCSI StAR MD Programme has expanded significantly with the recruitment of 12 scholars across the Hermitage Medical Centre, Beacon Hospital and Blackrock Clinic. The RCSI StAR International PhD Scholarship Programme has also expanded with nine scholarships awarded to international students to undertake a PhD with RCSI Principal Investigators including scholars of Soochow University, Fulbright Fellows and RCSI scholars.

Nine scholars received RCSI International Secondment Awards, however travel will be delayed due to COVID-19.



Sara McDonnell
Executive Director,
Institute of
Leadership

Institute of Leadership

Dedicated exclusively to cultivating and strengthening the leadership and management abilities of those working within the healthcare sector, the Institute of Leadership provides a range of flexible postgraduate diplomas, masters degrees and short or bespoke professional development programmes across our three international campuses.

These programmes are delivered in an increasingly blended format in order to bring about and support positive change for patient care. This year, 210 students graduated from our programmes in Dublin, Dubai and Bahrain.

New developments included the launch of a new Masters in Leadership and Innovation in Healthcare at our Dubai campus. Building on the success in Ireland of our first digital Professional Diploma in Clinical Leadership, this programme also launched in Dubai in collaboration with Dubai Healthcare City Authority.

The Professional Diploma in Clinical Leadership was also nominated for the Best Online Learning Experience at the 2020 Education Awards.

Our experience in digital delivery has underpinned the successful completion of all our academic programmes in 19/20 despite the challenges that COVID-19 has presented.

The institute continued to contribute to the development of the Irish healthcare system in both the public and private sectors. We were again successful in securing a tender for the third National Clinical Directors Executive Skills Training, aimed to enhance the capacity of executive clinical directors to lead and support systems change.

In support of leadership development for future nurse leaders, the institute was also awarded the tender for a number of programmes in the National Clinical Leadership Centre for Nursing and Midwifery.

Internationally, this year saw the launch of our first Johnson & Johnson EM-POWER Programme – Leadership and Innovation for Women in Healthcare. This programme is of strategic importance for both J&J and for the institute, and it supports the development of women leaders in healthcare from the UAE, Egypt, Saudi, Turkey and Lebanon.

Our experience in digital delivery has underpinned the successful completion of all our academic programmes in 19/20 despite the challenges that COVID-19 has presented.

Teaching and academic support

The Institute of Leadership facilitated scheduled teaching via online platforms since February following temporary closure of our on-campus operations in Bahrain. A total of 155 hours of live online teaching was delivered in addition to multiple virtual drop-in support sessions. Continuity of delivery was facilitated in a flexible and accessible way to ensure student progression and completion.

Healthcare system supports

The institute facilitated a user group to inform the development of some of the supports needed by the system during the rapidly evolving COVID-19 situation. The response took the form of a resource library; podcast series, focused on personal leadership and self-care; a weekly webinar series entitled 'Conversations that matter', co-developed with the HSE; and a keynote lecture among other initiatives in support of our colleagues across the RCSI Hospital Group.

Through our work in Ireland and internationally, the Institute of Leadership is committed to nurturing informed, impactful and resilient leaders who will shape our healthcare system for the better. This commitment has never been more important in light of the challenges that healthcare and society have faced this year and will face in the year to come.

»» Read more about the institute's activities on pages 55 and 77

RCSI CoMPPAS

RCSI CoMPPAS (Centre for Mastery: Personal, Professional and Academic Success) is RCSI's dedicated hub for student success, staffed by a dedicated team of educational, career and welfare professionals working to facilitate and empower students to achieve their personal, academic and professional goals. The team delivers initiatives in the area of academic skills development, peer mentoring and leadership, learning access and facilitation (including disability), student welfare and wellness and career development. CoMPPAS manages RCSI's Passport for Success (orientation programme), International Citizenship Award as well as supporting the personal academic tutoring programme.

The CoMPPAS team grew significantly in the past year, with the introduction of additional qualified career guidance professionals and student welfare, reflecting RCSI's commitment to student wellbeing and career attainment.

CoMPPAS transitioned seamlessly to remote service delivery, using a variety of online methods during the period when RCSI moved to remote learning. The team remained engaged with students across the world by celebrating their triumphs, including hosting a virtual Match Day for our Class of 2020, supporting students during challenging journeys home, quarantine and illness and the transition to online examinations.

Highlights of the year:

- As part of RCSI's response to the COVID-19 crisis, a census was designed and launched, in association with Registry, to ensure we knew where every undergraduate student was located. Students returned information on their whereabouts, including their travel home and any disruption along the way. This was an important process to ensure we could plan and tailor ongoing support and engagement required for students. The Student Union and the Class Representatives worked with the SARA and CoMPPAS teams to achieve a 100% return rate.
- The team facilitated nearly 3,500 one-to-one personal consultations and almost 13,500 student engagements through various workshops and activities.
- CoMPPAS implemented AMBOSS, a digital interactive learning platform for students, particularly helpful for licensing examinations. Almost 1,300 medical students are actively engaging with the platform, with over 95,839 chapters read to date and 146,616 questions answered.
- The team delivered eight Career Readiness Workshops online as part of the "Career Skills Summer Boot Camp" Programme.
- Student Welfare services conducted a satisfaction survey, with a response rate of 93%.



Áine Ní Donnell, age 3 with RCSI student Cristy Liang at the RCSI Paediatrics Society's sixth annual Teddy Bear Hospital in February 2020.



New students enjoy the Freshers' Carnival at Dardistown Sports Grounds in September 2019

STUDENT EXPERIENCE

Pursuits outside of the classroom enrich our student experience and enable our graduates to thrive personally and contribute to healthcare and society wherever in the world they choose to practice.

Although in-person events were curtailed due to the pandemic from March 2020, students re-imagined many of their planned activities in a virtual setting in partnership with Student Services, the Dean's Office and SARA with the support of staff across the University.

Orientation Week

560 students began their courses in medicine, pharmacy and physiotherapy in September 2019. New students were guided by the Buddy Programme, which provides an invaluable resource in the form of friendly, knowledgeable and experienced students.

Student clubs and societies highlights

RCSI's 71 active student clubs and societies provide a wealth of choice for students while also giving back to the community through fundraising and the skills of our students.

Hosted by the RCSI Paediatrics Society during the

first weekend in February, the sixth annual Teddy Bear Hospital saw over 350 children bring their sick or injured teddies to be treated by RCSI students. The session on Sunday is unique in Ireland, designed to host children living with special needs or experiencing chronic illness and their families in a smaller and quieter environment. All proceeds went to the charity St Michael's House, which provides a comprehensive range of services and supports to adults and children with intellectual disabilities and their families.

Technology and medicine in the 21st century was the theme of the addresses at the 87th Biological Society Inaugural Meeting, which took place in January. The Biological Society (BioSoc) is the oldest student society in RCSI and the event was organised by students from the Biological Society Committee with assistance from the RCSI Student Services team.

World Record on International Students' Day

RCSI students from more than 60 countries attempted a Guinness World Record for the "Most Nationalities in a Health Awareness Lesson" to commemorate the 80th anniversary of International Students' Day in November 2019. In December, Guinness World Records confirmed that the attempt was successful with 61 nationalities officially recorded.

Although in-person events were curtailed due to the pandemic from March 2020, students re-imagined many of their planned activities in a virtual setting.

RCSI Student Medical Journal

In April 2020, RCSI students digitally launched the 13th edition of the RCSI Student Medical Journal (RCSIsjmj). The journal is produced entirely by RCSI students and aims to promote student authorship and to foster research, innovation and student participation in healthcare issues.

Sporting highlights

Sport is an integral part of student life at RCSI. The 35 active sports clubs provide students with a wide variety of sport options, which they choose to balance with their academic studies. Large club activities during the year included more than 40 students going forward to take part in the Dublin City Marathon in October 2019 as part of the RCSI running club.

In October 2019, medical student Angus Lloyd was awarded a Professor Moira O'Brien Sports Scholarship in recognition of excellence in his sport as member of the Connaught rugby team.

International Conference for Healthcare and Medical Students

At the 9th International Conference for Healthcare and Medical Students (ICHAMS) from 6-8 February, students from around the world came to present their research to peers and educators in healthcare at this student-led scientific conference.



Students celebrate 10 years of the RCSI Research Summer School

“ Our centre’s
imaging technologies
will enhance our
researchers’ capabilities
of translating
laboratory findings
to improvements in
clinical patient care. ”

Professor Annette Byrne, Director of National
Preclinical Imaging Centre and Head of the RCSI
Precision Cancer Medicine Group



03

Leading
impactful
research



RCSI Research
Summer School



€2.3m

Industry funding for
research in 2019



1,017

PubMed indexed articles
published in 2019



5

new
patents
filed

18

invention
disclosures



124th

in the world for
field-weighted
citation impact

1,000

PI-supervised undergraduate
research projects completed



Leading impactful research



Professor Fergal O'Brien
Director of Research and Innovation

As a singular-focused health sciences university, RCSI's research agenda drives scientific breakthroughs, innovations and insights that allow us to understand and respond to changing healthcare needs.

I was honoured to be appointed Director of Research and Innovation and would like to wish my predecessor Professor Ray Stallings well in his retirement. Since my appointment, the Office of Research and Innovation (ORI) has been restructured to adapt to the ever-changing research landscape. I am delighted to welcome the new Deputy Directors of Research, Prof. Ger Curley (clinical research) and Prof. Gianpiero Cavalleri (translational research), to the Executive Research Management Team (ERMT). They join me along with Dr Paola Della Porta, Associate Director of Research; Dr Aoife Gallagher, Associate Director of Innovation and Dr Seamus Browne in his new role as Associate Director for Strategic Initiatives and Industry Partnerships.

Despite the challenges posed by the COVID-19 pandemic, it has been another exceptional year in terms of publications in top-tier journals, new industry partnerships and grant funding, particularly for clinical research and commercialisation. Our achievements are driven by our dynamic and highly motivated researchers who are focused on clinical and patient-centred research that addresses important national and international health challenges. The collaborations of

our basic scientists, clinicians and our industry partners leads to high-impact research and rapid translation of scientific breakthroughs for the benefit of human health.

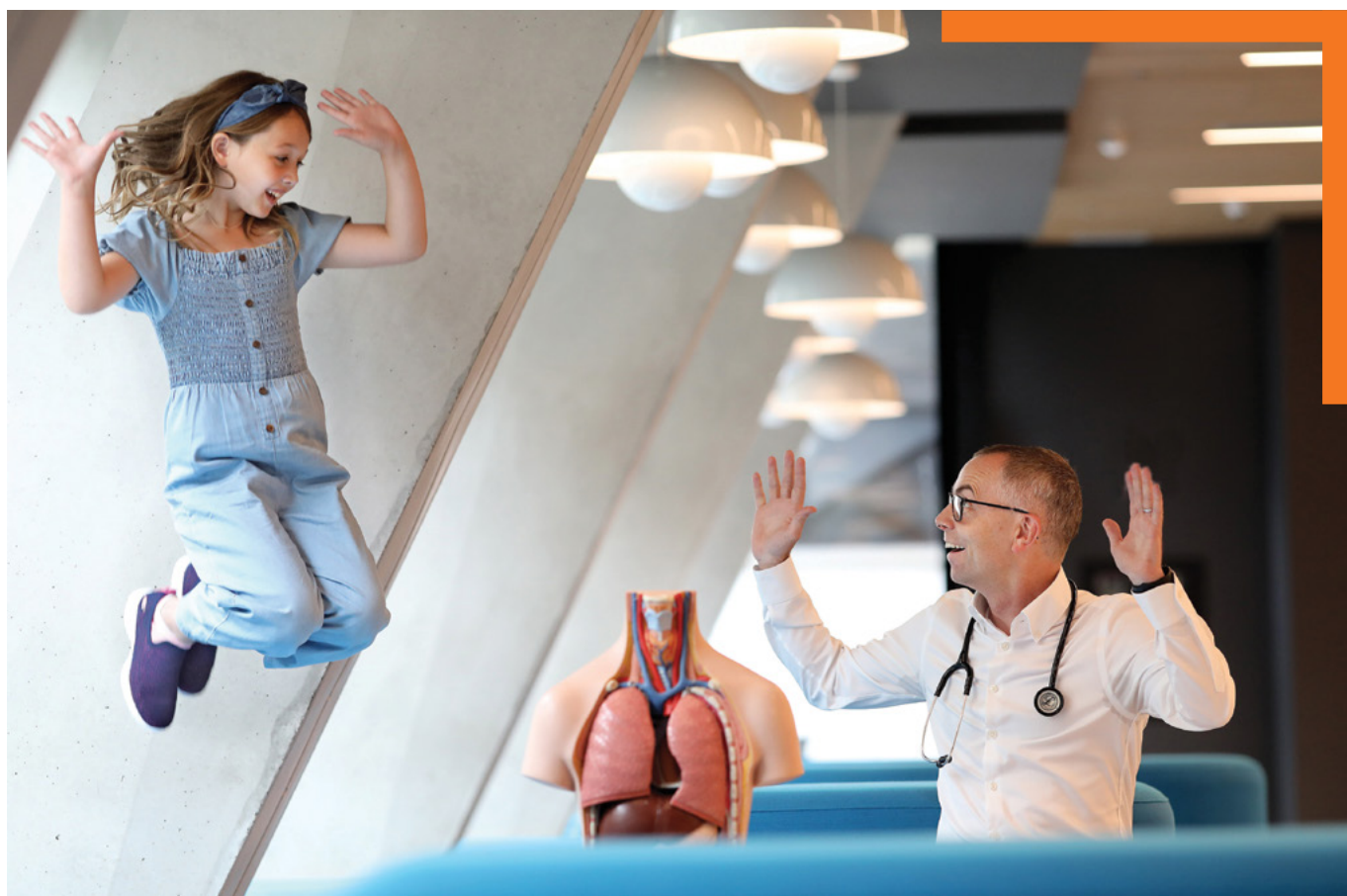
Over the coming year we are aiming to grow patient and public involvement (PPI) in our research, consolidate and coordinate our biobanking activities and strengthen the research links between RCSI and our partner hospitals. Working closely with the IT department, we have rolled out advanced infrastructure that will facilitate data collection, processing, analysis, sharing and storage. This will help meet the increasing needs of our researchers for secure data storage and computational capacity.

In August 2019, we celebrated 10 years of the Research Summer School. This programme, which also incorporates the Student Innovation Challenge, has allowed over 1,000 undergraduate students to carry out research projects under the supervision of an RCSI Principal Investigator (PI).

StAR Programme

A key factor in our recent success has been attracting the best research talent to RCSI through the Strategic Academic Recruitment (StAR) programme. It has accelerated the delivery of innovative, impactful research in the health sciences across a range of disciplines. This year we welcomed our new StAR lecturers: Dr Olga Piskareva (Department of Anatomy and Regenerative Medicine), Dr Sudipto Das (School of Pharmacy and Biomolecular Sciences) and Dr Clare Conway (Anatomy and Regenerative Medicine). We would like to congratulate Dr Stephen Madden (Data Science Centre) and Dr Simon Furney (Physiology and Medical Physics) for being appointed to a tenured lecturer position in the past year.

Throughout the pandemic, our PIs have contributed expert opinion to policy makers, healthcare providers and the public.



Annabel Murphy who has cystic fibrosis is pictured with Prof. Paul McNally, RCSI Associate Professor of Paediatrics to mark funding of more than €3m for the RECOVER study, led by RCSI, to investigate the real-world effects of a new triple combination cystic fibrosis drug, Kaftrio.

COVID-19

The closure of the RCSI campus in March was extremely challenging for the research community. However, detailed planning in the weeks before shutdown meant that we were able to minimise the disruption to our research programmes. Project activities were shifted to tasks that could be carried out from home. With the easing of government restrictions in May, our lab-based researchers returned to campus, albeit in a very different and more challenging working environment. This return to work would not have been possible without the support of the Business Continuity Planning (BCP) working group, which includes representatives from Estates, HR, ORI as well as researchers and academic leaders. I commend our research community, particularly the lab managers, postdocs, research assistants and postgraduate students in how they have adapted to these changes.

Throughout the pandemic, our PIs have contributed expert opinion to policy makers, healthcare providers and the public. They have provided testing reagents and buffers to the HSE and won funding from the national funding body's (SFI, HRB, IDA, EI and IRC) COVID-19 Rapid Response Funding Calls. For example, Prof. James O'Donnell (School of Pharmacy and Biomolecular Sciences and Irish Centre for Vascular Biology) led a study investigating why patients with COVID-19 develop

blood clotting abnormalities; Prof. Donal O'Shea (Department of Chemistry) led a project on facial PPE sterilisation; Prof. Bryan Hennessy (Department of Molecular Medicine) is investigating if COVID-19 infection can be detected using exhaled breath condensate; Prof. Zena Moore (School of Nursing and Midwifery) led a project on preventing facial pressure ulcers in healthcare staff; and Dr Fidelma Fitzpatrick (Department of Microbiology) contributed to several projects including safe PPE for healthcare workers, a saliva test and genetic sequencing of the virus.

We have also established the RCSI COVID-19 Research Programme which will be supported by a large philanthropic donation from the 3M Foundation. This programme supports projects led by Prof. James O'Donnell and Prof. Steve Kerrigan (School of Pharmacy and Biomolecular Sciences) that are investigating the pathogenesis of COVID-19 and new treatment regimens to reduce the severity of infection. Further details will be announced in September 2020.

Research highlights

Researchers at RCSI published a total of 1,017 PubMed indexed articles in 2019, communicating research from a broad range of health science disciplines. Not only are our researchers prolific in their output, but RCSI articles are also cited more than twice as often than the average

publication in their field and RCSI is the most highly cited higher education institution in Ireland (measured by the field-weighted citation index). Below are some examples selected from the array of articles published in high-impact journals during the annual reporting period where the senior author was an RCSI staff member.

New approach for treating cystic fibrosis

A research project led by Prof. Gerry McElvaney, Department of Medicine, has identified a new therapy Cystic fibrosis (CF). These findings, published in the American Journal of Respiratory and Critical Care Medicine showed that the small molecule MCC950 can reduce inflammation and helped clear the lungs of bacteria, suggesting this molecule could be a candidate for a future clinical trial.

Discovery of potential mechanism to treat epilepsy

Dr Tobias Engel (Department of Physiology and Medical Physics) and his team have discovered that the polyadenylation of messenger RNA is dramatically altered in about one-third of the genes of someone with epilepsy. This polyadenylation in turn alters protein production in the brain which could mediate the disease symptoms. The findings, published in the journal Brain, may lead to the development of new targeted treatments and possibly even prevent people from developing epilepsy.

Detection of a subtype of ovarian cancer could lead to better outcomes

A study led by Prof. Bryan Hennessy, (Department of Molecular Medicine) has found that a specific subtype of ovarian cancer (BRCA1 mutation) could possibly benefit from existing platinum-based chemotherapy and new DNA repairing treatments. The study published in The Journal of the National Cancer Institute used the data of 2,636 patients with ovarian cancer from 15 international studies to conclude that improved detection of BRCA1 modifications could lead to better treatments.

Funding Awards

RCSI has continued to have significant success in securing research funding from a wide range of funding bodies, both national and international. Of particular note was the unprecedented accomplishment of RCSI researchers winning four out of five available HRB Emerging Clinician Scientist Awards. RCSI researchers are also leading four Sláintecare Integration projects, which aim to transform the delivery of healthcare in Ireland. Seven Marie Skłodowska-Curie Actions-Individual fellowships were awarded to RCSI in 2019. This was a 63% success rate and compares very favourably with the average for Ireland and the EU (17.4% and 15.2% respectively). The total external funding awarded to RCSI for the calendar year 2019 was €20.9 million.

Details of a number of the larger awards in the last 12 months are below:

- Prof. Paul McNally; RECOVER Real World Clinical Outcomes of novel CFTR Modulators. Cystic Fibrosis Foundation US, Cystic Fibrosis Trust UK and Cystic Fibrosis Ireland: €3.1 million.
- Prof. Frances Horgan and Prof. David Williams; Pathway for Acute Stroke and Rehabilitation. HRB Collaborative Doctoral Award (CDA): €1.5 million.
- Prof. Gianpiero Cavalleri; Blockchain and AI-Enabled Stratified Trial System. Enterprise Ireland / Disruptive Technologies Innovation Fund (DTIF) €1.2 million.
- Prof. Conall O'Seaghdha and Prof. Peter Conlon; Haemodialysis Outcomes & Patient Empowerment (HOPE), Blockchain and AI-Enabled Stratified Trial System. Enterprise Ireland / Disruptive Technologies Innovation Fund (DTIF) €1.2 million.
- Prof. Donal O'Shea; Super-Resolution Imaging Consortium (SRIC). SFI Research Infrastructure Award €1.5 million with €1.1 million going to RCSI.
- Prof. Leonie Young; Epi-Genomic and Epi-Transcriptomic Aberrations in Breast Cancer Brain Metastasis. SFI Future Frontiers Programme (FFP). €1.1 million.
- Prof. Ger Curley; Expanding the lung donor pool: interventions to improve donor management, expand ex vivo lung perfusion and repair injured donor lungs. HRB Emerging Clinician Scientist Award: €1 million.
- Dr Killian Hurley; Precision Diagnosis and Care for Families with Pulmonary Fibrosis in Ireland. HRB Emerging Clinician Scientist Award: €1 million.
- Dr Michael O'Reilly; Linking 11-oxygenated androgens, skeletal muscle glucose metabolism and diabetes risk in polycystic ovary syndrome. HRB Emerging Clinician Scientist Award: €1 million.
- Dr Emma Wallace; Characterising problematic polypharmacy in older community-dwelling people attending general practice. HRB Emerging Clinician Scientist Award: €1 million.
- Dr Aamir Hameed, Dr Helena Kelly, Prof. Mauro Adamo and Prof. Sally-Ann Cryan have each been awarded funding from the Enterprise Ireland Commercialisation Fund. Combined: €1.4 million

The number of agreements concluded to commercialise intellectual property arising out of RCSI's research activities increased by 20%.



To mark the agreement of collaboration between NCAD and RCSI, NCAD students Joe O'Connor and June Galbarriartu are pictured at RCSI with a prototype of a leg used for surgery simulation.

- Prof. Annette Byrne; National Preclinical Imaging Centre (NPIC). SFI Research Infrastructure Award €3.4 million with €600K going to RCSI.

Awards and Honours

Prof. Kevin McGuigan (Physiology and Medical Physics) has been awarded the UNESCO-Equatorial Guinea International Prize for Research in the Life Sciences. He was honoured for his cutting-edge research on the development and implementation of solar water disinfection technology (SODIS) to combat waterborne diseases among people without access to safe drinking water in Africa and Asia.

Innovation

In 2019, the number of agreements concluded to commercialise intellectual property arising out of RCSI's research activities increased by 20% with a similar increase in patenting activity and industry engagement. The University's improved knowledge transfer performance has continued, and RCSI has again exceeded its targets for industry engagement (by 20%), invention disclosures (by 38%) and research commercialisation agreements (by 20%) as independently set by Knowledge Transfer Ireland. During the reporting period, the value of Research commercialisation funding grew significantly to €3.3 million, which is testament to RCSI's world-class research expertise and its commercial application.

Innovation highlights

Student Innovation Challenge winner Siobhán Ryan's success in the Enterprise Ireland Student Entrepreneur Awards

Siobhán Ryan, an RCSI medical student, won the Cruickshank High Achieving Merit Award at the Enterprise Ireland Student Entrepreneur Awards 2020 for her project PressiDect, a peri-operative pressure detection system to be used on the surface of an operating theatre table. This success follows on from Siobhán and team's success in the 2018 Student Innovation Challenge.

Integra Lifesciences commercialise RCSI developed peripheral nerve repair technology

A newly developed peripheral nerve repair technology, developed by Prof. Fergal O'Brien's group through an AMBER Centre partnership, was recently acquired through a high-value assignment agreement by collaborative partner Integra Lifesciences. The collaboration with Integra has been ongoing since 2015 and is a highly productive engagement leading to two commercialisation agreements and two patent filings to date.

SWaT Research Centre enters collaboration with DeRoyal Industries, Henkel and the Tyndall National Institute

A team of researchers at the Skin Wounds and Trauma (SWaT) Research Centre led by Prof. Zena Moore and Dr Declan Patton have entered into a significant research

collaboration with DeRoyal Industries, Henkel and the Tyndall National Institute to develop next generation smart bandages for wound care. This collaboration benefits from over €550,000 funding support from Enterprise Ireland under the Innovation Partnership Programme.

Grifols support RCSI investigator initiated COVID-19 trial

Prof. Gerry McElvaney and Prof. Ger Curley have begun a randomised double blind placebo controlled clinical trial of alpha-1-antitrypsin to treat critically ill patients mechanically ventilated in ICU with COVID-19 associated Acute Respiratory Distress Syndrome. This investigator-initiated study benefited from generous support from Grifols, S.A, a Spanish multinational pharmaceutical company, who provided access to the alpha1-proteinase inhibitor study drug.

RCSI partners with Theravance Biopharma

Prof. Richard Costello received over €380,000 of funding from Theravance Biopharma for a programme of work to design and perform proof-of-concept validation of a low-cost acoustic device for assessment of inspiratory flow rate within a clinical environment.

RCSI and NCAD partner to drive innovation in healthcare

RCSI and the National College of Art and Design (NCAD) have entered into an agreement to collaborate on healthcare innovations. The Memorandum of Understanding (MOU) between the two institutions, negotiated by the ORI, establishes a collaborative framework for further engagement, including commercialisation activities such as joint projects with industry partners in the fields of medical device design, surgical trainer design, procedure task analysis, prototyping, and innovation in healthcare practices and processes.

Skyline DX and Celegene Partner with RCSI for Multiple Myeloma Research

Dr Siobhan Glavey received over €400,000 from Skyline DX and Celegene for a study examining the impact of genetic expression profile on depth of response and survival in myeloma.

RCSI's Strategic Industry Partnership Seed Fund enables Leo Pharma collaboration

Danish headquartered Leo Pharma and Dr Jamie O'Sullivan entered a collaborative research programme seeking to define the role of Tinzaparin-VWF axis in modulating breast cancer metastasis. This programme is co-funded by Leo Pharma and RCSI under the RCSI Strategic Industry Partnership Seed Fund. This fund provides an innovative and differentiated approach for industry to engage with RCSI researchers to form scalable relationship in areas of mutual interest.



Professor James O'Donnell, Director of the Irish Centre for Vascular Biology, RCSI

As a clinician scientist working on the front line as a Consultant Haematologist, I began to see abnormal blood clotting in patients with severe COVID-19 as they were admitted to hospital. The pattern of this clotting activation was different to that seen in other types of severe sepsis. We investigated this phenomenon and were the first to publish findings based on Irish patients with severe COVID-19.

We found that COVID-19 is associated with a unique blood clotting disorder that is primarily focussed within the lungs and which undoubtedly contributes to the high levels of mortality being seen in patients with the virus.

Post mortem studies have identified hundreds of micro-clots in the lungs of patients with COVID-19. This is not something that is not seen with other types of lung infection, and explains why blood oxygen levels fall dramatically in severe COVID-19 infection.

Our paper, rapidly published in April in the British Journal of Haematology, received worldwide attention as we joined the global effort to understand COVID-19.

We are conducting further studies, funded by the Health Research Board and others, to investigate how these micro-clots are being formed and whether different blood thinning treatments may have a role in reducing the risk of clot formation.

There is still a lot to understand about this new disease and high quality intensive clinical research is critical to improve outcomes for patients with COVID-19 in Ireland and worldwide.

Contribution to the UN Sustainable Development Goals

- **6** hospitals, **2,166 beds**, **450** honorary staff across the RCSI teaching hospital network
- **12 years** collaborating with COSESCA and Irish Aid
- **3,007** collaborating research institutions worldwide

17 PARTNERSHIPS FOR THE GOALS



- **Zero to landfill** policy for waste
- **Elimination of paper cups** from staff rooms
- **Single use plastic removed** from cafés

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



- **Partnerships** with disadvantaged schools and community groups
- **3000+ viewing** RCSI MyHealth public lectures annually
- Innovative **Transition Year MiniMed** programme

11 SUSTAINABLE CITIES AND COMMUNITIES



- **Ranked 62nd** in the world for decent work and economic growth by Times Higher Education Impact Ranking – a reflection on quality work practices and contribution to the Irish economy

8 DECENT WORK AND ECONOMIC GROWTH





SUSTAINABLE DEVELOPMENT GOALS

3 GOOD HEALTH AND WELL-BEING



- **#1 in the world** in Times Higher Education (THE) Impact Ranking 2020
- **Strong health research: 4,887** publications, **133,805 views**, **114,181 citations** (Source: SciVal – 2010-2019)
- **30 years** operating Mercer Medical Centre – caring for the local community in Dublin city centre

4 QUALITY EDUCATION



- **21,000** health professions alumni across **94** countries
- Student electives in **22** countries with **45** collaborating healthcare institutions
- **Largest clinical simulation centre** in Europe

5 GENDER EQUALITY



- **Athena Swan Bronze** award
- **Addressing the gender gap in surgery** through research and policy changes
- First higher education institution to achieve the **Investors in Diversity** Ireland standard

6 CLEAN WATER AND SANITATION



- **International prize** for research technology in the development and implementation of solar water disinfection technology (SODIS) to combat waterborne diseases in Africa and Asia.

7 AFFORDABLE AND CLEAN ENERGY



- **Green Flag** for sustainability and environmental management by An Taisce's Green Campus programme on behalf of the Foundation for Environmental Education
- **100%** green electricity procured
- **38%** improvement in energy efficiency(kWh/sqm) since baseline 2006

No. 1
for **GOOD HEALTH and WELL-BEING**

THE IMPACT RANKINGS 2020

“The pandemic has highlighted our duty as clinicians to provide expert commentary so the public can access accurate media information.”

Professor Sam McConkey, Professor of International Health and Tropical Medicine and member of the RCSI MyHealth Expert Directory.



04

Supporting
healthcare
and society



3,336

watched live RCSI
MyHealth Lecture
Series



Weekly
Conversations
that Matter
digital series

10
Years

of the Primary Science
for Teachers initiative



SURG-Africa
building
safe surgical
services for
18 million
people



90%+
retention rate of
COSECSA Fellows as
practising surgeons in
Africa



Supporting healthcare and society



Eunan Friel
Managing Director
Healthcare Management

RCSI's commitment to the advancement of leading-edge healthcare management practice continued to progress in the last 12 months, through efficient adaptation of our educational offerings to the rapidly changing needs of clinical leaders confronting the challenges of COVID-19, enhanced development of academic research around improved health service delivery and the focused provision of quality and process improvement support within the University.

It was inevitable that the capacity of frontline healthcare professionals to participate in our Institute of Leadership programmes would be disrupted by the extraordinary demands placed on our healthcare system by the COVID-19 pandemic. Thanks to the ingenuity of the institute's academic and operations teams, innovative methods adopted facilitated the seamless completion of the academic year using a digital medium. Imaginative and creative use of tools such as MS Teams and Blackboard Collaborate facilitated content delivery to multiple international locations and online engagement of learning groups. Feedback from participants was overwhelmingly positive and the commitment of students and staff alike is to be commended.

In the period from March to June 2020, the academic and operations teams also developed a range of innovative educational solutions delivered in convenient 'bite-sized', user-centric digital presentations. These included: a weekly series produced in collaboration with the HSE called Conversations that Matter, whereby the institute hosted vital peer-to-peer conversations and interviews with those at the frontline of COVID-19

The institute hosted vital peer-to-peer conversations and interviews with those at the frontline of COVID-19 healthcare.

healthcare, discussing the day-to-day realities and sharing challenges and learnings; an online lecture on the subject of compassionate leadership by Michael West, Head of Thought Leadership at the King's Fund; and a series of podcasts on wellness and personal leadership.

Through these initiatives it became apparent that the receptiveness of clinical leadership to digital consumption of learning was far greater than previously perceived. Equally, there was a realisation that the institute had reached a stage of technical readiness, through our outstanding academic and operations teams, to optimise digital delivery to a transformative degree. A new level of digital expertise has been achieved – with consequent benefits in terms of speed and efficiency – which it is inevitable will enhance our delivery methodology post-COVID.

Direct engagement by the Quality and Process Improvement Centre (QPIC) in initiatives such as the theatre optimisation project underway in hospitals in the south and southwest, including University Hospital Kerry, and South Infirmary Victoria University Hospital in Cork, was paused with most of that work now continuing via digital moderation. The Better RCSI programme delivered a series of both White and Yellow Belt training programmes across RCSI this year, creating the internal capacity to support process improvement into the future.

The project management capability within QPIC pivoted to the deployment of project management support internally within RCSI in order to assist in the response to COVID-19 across the areas of student recruitment and operational planning for the new student cohorts.

The Health Outcomes Research Centre (HORC) has continued to develop its research focus on health service delivery through the provision of evidence-based analysis to inform policymakers and improve

patient outcomes. Due to the impact of COVID-19, HORC postponed the Third National Healthcare Outcomes Conference which was to be held at the end of March 2020 and which has been provisionally re-scheduled for spring 2021.

In collaboration with the National Clinical Programme in Surgery, HORC continued to review databases on a range of surgical procedures, including hip fracture, laparotomy and major trauma, assessing differences in outcomes and identifying influencing factors. Several new research papers were published during the reporting period addressing health outcomes across an extensive range of health services including elective hip replacements, emergency medical services and surgical treatments for isolated patellofemoral osteoarthritis.

Appointments

At the end of 2019, Professor Ciaran O'Boyle moved from his role as Director of the Institute of Leadership to become Founding Director of the Centre of Positive Psychology and Health. He had been a Founding Director of the institute, overseeing its growth and successful development from 2005 to 2019.

Sara McDonnell, our former Head of Operations, became Executive Director of the Institute of Leadership. Sara leads the institute's ambitious initiatives to drive growth by widening its strategic remit and enhancing its commitment to the transformation of healthcare into the future.



Paul Reid, CEO of the HSE delivered an RCSI Leadership Lecture to an audience of more than 200 health professionals at RCSI in November 2019.

Community in Ireland

Initiatives aligned with RCSI Engage, our strategy to support health and education in our local and national communities from 2019 to 2023, continued to progress over the past year.

The RCSI Engage vision is to enhance human health and education by building reciprocal partnerships between RCSI staff and students and our local and national communities.

Despite a number of initiatives planned for Spring/Summer 2020, being paused or re-imagined in a digital format due to the COVID-19 pandemic, there was a wealth of activity, aligned with the strategy, that took place in the preceding months.

Local community

The REACH (Recreation Education And Community Health) RCSI Programme is RCSI's local community engagement and access programme, connecting the University with our local community, facilitating access to education for groups traditionally underrepresented and promoting health.

Community partnerships and involvement of RCSI students and staff through volunteering, community based learning and staff/student partnerships are central to the reciprocal nature of the programme.



Primary school teachers Linda Galvin and Catherine Boyd participate in a sensory walk in St. Stephens Green as part of the RCSI Primary Science for Teachers Initiative, which marked its 10th year in July 2019

Local community health

Highlights of health initiatives with the local community included a Foundation Year Health Promotion Elective where RCSI students engaged with primary school students to promote physical health, led by Maria Kelly, REACH RCSI Programme Manager and Dr Orlagh O'Shea, School of Physiotherapy.

The RCSI Paediatric Society visited the junior classes of local primary schools to demystify the experience of visiting health professionals and conduct introductory activities on health and nutrition. The Paediatric Health Education collaboration with RCSI clinical tutors, led by Dr Dáire O'Leary, Clare Sullivan, Maria Kelly with Senior Cycle 1 students and our link primary schools, developed a reciprocal health education initiative building RCSI students' communication skills and health literacy in the participating primary students.

The ninth annual partnership event "Ballroom of Romance" with Dublin City Council (DCC) in July 2019 welcomed 350 older people and DCC volunteers for an evening of entertainment, followed in the winter by an Annual Christmas Lunch for older people in the community.

The annual day of free health checks for our local community was facilitated by Mercer's Medical Centre.

A Face in the Crowd

This piece of theatre, created by individuals with a lived experience of mental health issues, was born out of the belief that telling real life stories of people helps us become aware of the recovery process from mental health difficulties and provides opportunities to unearth insights that may better inform our futures. 4th, 5th and 6th year students from Presentation Secondary, CBS Synge St, CBS Westland Row and CBS James St attended the play and follow up mental health workshops were hosted by REACH RCSI and Faculty of Nursing and Midwifery.

Local community education

The key education initiative of the REACH RCSI programme, Junior Certificate and Leaving Certificate Grinds Clubs took place from October 2019 until March 2020.



Primary school student Brooke Guerrine learns about burn injuries from RCSI medical student Ann Devlin at the REACH RCSI Halloween Safety Education Programme in October 2019, facilitated by the RCSI Department of Paediatrics

The “Chemistry Ambassador Programme”, a Community based learning initiative led by Maria Kelly and Prof. Marc Devocelle saw RCSI students working with local primary students to promote chemistry as part of a Foundation Year STEM Elective.

Prof. Donal O’Shea and Suzanne Donnelly (RCSI Chemistry) undertook significant planning work for an innovative Leaving Certificate Chemistry support programme for local students, which was originally scheduled to take place over Easter 2020. The course has been postponed until 2021 due to COVID-19.

10th Annual Summer Course for Primary School Teachers

July 2019 marked 10 years of educating primary

teachers in science through the Primary Science for Teachers Initiative (PSTI). The initiative was facilitated by RCSI’s PSTI team Maria Kelly, Dr Maria Morgan, Prof. Marc Devocelle, Dr Kenny Winsor, Eric Clarke and numerous RCSI researchers who host visits in their labs and discuss their research.

Approved by the Department of Education and Skills, this initiative aims to build teacher confidence and subject knowledge to effectively teach science through inquiry. Teachers are supported in the delivery of hands-on science activities designed to be low cost and adaptable for all primary year groups. Over 300 teachers have participated since 2009, bringing science-based learning and activities back to the classrooms of over 6,000 students.

The Expert Directory has been of particular relevance since the onset of the COVID-19 pandemic with a six-fold increase in national media coverage driven by the contributions of RCSI expert spokespeople.

National community

Transition Year programmes

The RCSI Transition Year MiniMed programme takes place annually in Dublin and Waterford and offers transition year students the opportunity to learn from the country's top medical experts while getting hands-on experience as a healthcare professional. Due to the popularity of the initiative, the Dublin programme was expanded in 2020 to run twice, doubling the number of places available for students. 240 students participated in the first three-day programme in Dublin in late February with a further 120 attending in Waterford. The second Dublin session, scheduled to begin on 9 March bringing together children from 180 schools across the country, was postponed due to COVID-19. Plans are ongoing to re-schedule in a safe and appropriate format for 2021.

At a three-day Mini Science Transition Year Programme from 3 – 5 February 2020, students had the opportunity to experience life as a scientist alongside researchers based at RCSI's Centre for Systems Medicine. The students learned about ageing of the human brain, epilepsy, brain tumours, motor neuron disease, and cancer.

The School of Physiotherapy welcomed 40 Transition Year (TY) Students from across Ireland for the Transition to Health TY Programme which took place on 2 and 3 February 2020.

RCSI MyHealth

RCSI MyHealth Lecture Series

A new RCSI MyHealth Lecture Series was launched in August 2019 for members of the public who want to learn more about common illnesses and health-related topics directly from leading healthcare experts. The 2019/2020 series focused on the themes Child Health, Women's Health and Positive Health.

2019 lectures included: Cannabis and Youth Health – The Evidence (September); Arthritis: My Joint Health (October); and How Inequality Kills: Margins, the Marginalised and Public Health (November).

In January 2020, a further series focussing specifically on positive health and wellness was launched. The RCSI MyHealth Positive Health Lecture Series included Exercise and Nutrition (January); Tobacco and Alcohol (February).

Following advice from our in-house experts, the 3 March 2020 lecture, The Evidence Behind Vaccinations, was hosted online for the safety of the audience and speakers in the context of the first case of COVID-19 confirmed in Ireland a few days previously. A further lecture in the RCSI MyHealth Positive Health Lecture Series, Stress management, mindfulness and relaxation, was re-scheduled to take place online in August.

RCSI MyHealth Expert Directory

In July 2019, the University launched the first phase of a new RCSI MyHealth Expert Directory to media. This new resource for journalists, brought together details of our experts, across a range of healthcare issues and concerns, in an online listing. In support of the UN Sustainable Development Goals to promote health and wellbeing, these academics, clinicians and researchers are willing to engage with the media in their area of expertise so they can empower people with information that leads them to better health.

The Expert Directory has been of particular relevance since the onset of the COVID-19 pandemic with a six-fold increase in national media coverage of RCSI from January- June 2020, driven by the contributions of RCSI expert spokespeople.

Global community

As signatories to the UN Sustainable Development Goals accord, we are committed to fostering improvements in communities globally.



SURG-Africa has developed a regular supervision programme enabling specialists (surgeons, anaesthetists, obstetricians and nurses) to be trainers and mentors of district hospital surgical teams.

Institute of Global Surgery

Professor Mark Shrive was appointed O'Brien Chair of Global Surgery in June 2020 and will lead the institute in its work to address the provision of surgical care in low and middle-income countries.

Professor Shrive, co-author of the groundbreaking Lancet Commission Report on Global Surgery 2030, will take up the role in July 2020. He joins RCSI from Harvard Medical School and the Massachusetts Eye and Ear Infirmary, where he was Director of the Center for Global Surgery Evaluation.

With five billion people worldwide unable to access safe, affordable surgical care when needed, the challenge is immense.

Although the COVID-19 pandemic necessitated flexibility in the institute's programmes of work in 2020, the partnership models employed, strong relationships built up over many years and electronic platforms already put in place have enabled impactful work to continue and grow.

Programmes

Building surgical training capacity, the institute is founded on the work of our established programmes in Sub-Saharan Africa, in particular the EU Horizon 2020 funded SURG Africa participatory action research programme and the Irish Aid funded RCSI/COSECSA Collaboration Programme. New programmes in the institute in 2019/2020 have

Strong relationships built up over many years and electronic platforms already put in place have enabled impactful work to continue and grow.

focused on the most vulnerable surgical patients in low and middle-income countries – children and women – as well as working to build the anaesthesia workforce, which is severely lacking in many countries.

The new KidSURG programme looks to improve access to safe paediatric surgical care for rural populations in Malawi, and we are building a paediatric surgical e-learning platform for Sub-Saharan Africa in partnership with Kids Operating Room and African surgical training organisations. The Akazi programme is working to expand breast and cervical cancer services in Malawi. The institute is working with the College of Anaesthesiologists of East, Central and Southern Africa and the College of Anaesthesiologists of Ireland to expand anaesthesiology training in East and Southern Africa.

Local Engagement

In Ireland, the institute is part of the global health initiative of the Forum of Irish Postgraduate Medical Training Bodies, which held its inaugural symposium in October 2019. The institute provides global surgery teaching through RCSI's surgical master's programmes.

RCSI/COSECSA Collaboration Programme

The Collaboration Programme between RCSI and COSECSA (the College of Surgeons of East, Central and Southern Africa), now in its 13th year, continues to thrive. In 2019, Irish Aid provided a budget of €500,000 to the programme. Staff and departments from across RCSI routinely give their time and expertise to the programme free of charge. The overall aim of the programme is to train and retain more surgeons in sub-Saharan Africa and make better-quality surgery available to more patients.

With 450 graduates to date, COSECSA is well on track to exceed its target of graduating 500 new surgeons despite the 2020 exams and graduation ceremony being postponed until spring of 2021 due to the COVID-19 pandemic. The retention rate of COSECSA Fellows as practising surgeons in Africa is over 90%.

In the past year, the programme incorporated two new projects. The Quality and Process Improvement in Operating Theatres (QPOT) project is piloting in two busy hospitals in Tanzania and Ethiopia, aiming to improve efficiency in surgical services. We are delighted to work with RCSI's Quality and Process Improvement Centre on this innovative project, which is part-sponsored by our commercial partner, Acelity.

There can be no safe surgery without safe anaesthesia. We have joined forces with the College of Anaesthesiologists of Ireland and CANECSA (College of Anaesthetists of East, Central and



Dr Patrick Noah, COSECSA Fellowship academic coordinator, Malawi

I am the Academic Departmental Head at the University of Malawi-College of Medicine, based at the Queen Elizabeth Central hospital in Malawi, a tertiary referral hospital and teaching hospital. My primary responsibility within the medical school is to coordinate the academic/teaching activities for undergraduate and postgraduate surgical training and the COSECSA Fellowship Programmes.

COVID-19 has drastically affected surgical training as our health service has focused its attention on the COVID-19 fight rather than surgical and other specialty services. Surgical services have been working at a very slow pace with surgical clinics and procedures limited to emergencies only. We have lost significant operating time and our trainees have had limited opportunities to perform operations.

The COSECSA e-learning platform has helped to bridge the gap in training and ensured that trainees did not lose touch with surgical training during the pandemic. The e-learning has facilitated continuity of non-operative surgical training. We hope the uninterrupted surgical training academic programme has laid the foundation for improved training when routine surgical services resume.

COSECSA has benefited patients tremendously in Malawi by increasing the number of surgeons in the country. The improvement in the surgeon to patient ratios and higher quality of surgery has enhanced the access and outcomes for patients in need of surgical care.

Southern Africa) to map the current anaesthesia workforce in sub-Saharan Africa; develop a curriculum and online resources; accredit training sites; train trainers; and register the first candidates for CANECSA exams.

In December 2019, President Mr Kenneth Mealy and a large group from RCSI travelled to Kampala, Uganda to serve as examiners in the COSECSA Membership and Fellowship exams. The Irish delegation also met with the President of Uganda, the Prime Minister and the Minister of Health. During the week, the Irish Ambassador hosted a reception at his residence, where RCSI presented a portrait of RCSI Fellow and Honorary COSECSA Fellow, Sr Dr Maura Lynch to the Ambassador.

Other highlights include the publication of "Operating Together: 12 Years of Collaboration Between RCSI and COSECSA", with all proceeds of the book going to COSECSA. Dermot O'Flynn, Director of Professional Development at RCSI's Institute of Leadership won an ESTHER 'Unsung Heroes' award for his many years' work training "Surgeons in Leadership" and "Train the Trainer" courses across the COSECSA region.

COSECSA, as a 'College without Walls', was an early adopter of e-learning. Over the years, RCSI has supported COSECSA to develop a bespoke e-logbook and e-learning platform, and has maintained these to a high standard with extensive, generous support from the IT department and Surgical Affairs. When the COVID-19 pandemic hit, COSECSA was one of the few colleges worldwide that did not have to make a sudden pivot to e-learning. COSECSA's academic programme has been able to continue uninterrupted, and to date 230,000 operations have been recorded in the e-logbook. The collaboration programme is coordinating a number of studies to analyse the logbook data for the benefit of surgical training and patient care in the region.

The intervention is building the confidence and skills of surgical teams in 31 district hospitals.

SURG Africa

Through the Scaling up Safe Surgery for District and Rural Populations in Africa (SURG-Africa) project, RCSI, in collaboration with two European and three African partners, continues to increase access to essential and lifesaving surgical care for underserved and vulnerable populations of rural Zambia, Malawi and Tanzania. The intervention is building the confidence and skills of surgical teams in 31 district hospitals to improve safety, efficiency and effectiveness of service delivery for the 18 million people covered by the project. As the intervention is winding down in Zambia and Malawi, evidence of its benefits is already emerging.

The research programme currently involves over 20 studies on different aspects of surgical care delivery in resource-limited settings. Topics include functionality of referral systems, task-shifting as a solution to human resource shortages, surgical quality control practices and patient outcomes, among others. The final goal is to inform and support policy makers and healthcare leaders in the development of sustainable and locally relevant strategies to strengthen service delivery in their countries.

In doing so, the project adheres to the principles of equity and inclusion - 48% of our researchers are female, and 40% of researchers are from the Global South. The project is also actively supporting early career researchers (63% of total) by offering opportunities to RCSI students as well as collaborating with partners abroad, including the University of Zambia and Maastricht University. The team has also secured the RCSI StAR and the Fulbright scholarships for two PhDs in global surgery, which will focus on patient-centred surgical care in sub-Saharan Africa.

As the largest district surgical capacity building programme in the world, SURG-Africa is working to disseminate evidence generated by the project, lessons learned and insights into LMICs surgical systems to the international community. Seven scientific articles have been published during this reporting period, with an additional seven currently under review, all of them in top quartile journals. Our social media activity is growing including a new YouTube series (Surge Ahead), which collects voices from the field on the impact of COVID-19 on surgery.

Akazi

The team is also leading the Akazi project which aims to develop an integrated screening package for breast and cervical cancer for rural women in Africa. In the past months the project provided equipment, training and supervision to health centres in the Zomba district in Malawi.



Prof. Kevin McGuigan and PhD student Bhairavi Sawant with EU WATERSPOUTT Project study participants in rural Malawi. Prof. McGuigan's group have been piloting prototype 20L Transparent Solar Disinfection buckets in this area of Malawi.

2019 Clean water projects

In February 2020 at a ceremony held at the HQ of the African Union in Addis Ababa in Ethiopia, RCSI researcher Professor Kevin McGuigan (Physiology and Medical Physics) received the 2019 UNESCO-Equatorial Guinea International Prize for Research in the Life Sciences from the Director-General of UNESCO Madam Audrey Azoulay. The award recognised "his cutting-edge research on the development and implementation of solar water disinfection technology (SODIS) to combat waterborne diseases among people without access to safe drinking water in Africa and Asia."

Professor McGuigan is currently coordinating the joint EU (H2020)/Indian Government funded PANIWATER Project. The project focuses on the removal of anti-microbial resistant microbes and anti-microbial resistant genes from drinking water and wastewater in rural India by using sustainable technologies, which are appropriate for low-resource settings.

The WATERSPOUTT Project, which was coordinated by Professor McGuigan, concluded in May 2020. WATERSPOUTT developed three solar water disinfection technologies, which were field-tested in Ethiopia, Malawi, Uganda and South Africa.

WATERSPOUTT and PANIWATER both contributed towards United Nations Sustainable Development Goal 6 (Ensure availability and sustainable management of water and sanitation for all by 2030).

International Health and Tropical Medicine

RCSI's Department of International Health and Tropical Medicine has made a major commitment to international medical education, and Professor Sam McConkey, in his role as Vice-Dean, leads international curriculum development. Our aim is to enable our graduates to practice well in diverse multicultural settings.

The Department provides medical education for all student doctors in RCSI on topics including HIV, malaria and other vectors of disease. Our teaching programme was managed and provided remotely to our Graduate Entry Medicine students during the COVID-19 response.

The departmental research portfolio includes work on malaria surveillance and HIV vaccine trials. Professor Sam McConkey is a member of the Board of European Vaccine Initiative, Heidelberg.

COVID-19 Pandemic Response

Department staff, in their clinical roles at the Infectious Disease Department at Beaumont Hospital, continue to monitor the Covid-19 response and remain active in their duties to new admissions.

Professor Sam McConkey has made appearances on RTÉ News, Primetime, The Late, Late Show and national radio, numerous appearances on local radio stations all around Ireland and Northern Ireland as well as appearing on Piers Morgan Good Morning Britain. In print, he has been featured in The New York Times, The Irish Times, Irish Independent, The Sunday Business Post and many other interviews newspapers and magazines. He also provided briefings to industry groups, sports societies, charities and educational groups about how to re-organise their practice post COVID-19.

Dr Eoghan de Barra, together with colleagues from Microbiology, Respiratory and Critical care, led the Beaumont Hospital response to COVID-19. This saw many innovations, including the first dedicated testing pod in Ireland and radical changes in work practice. Throughout the first wave, he was involved in a core management team that informed policy and planning with the goal of safe management of patients, staff and the wider community. He established and heads the testing pod, which is staffed by Physician Associates. It provides testing for pre-operative patients and healthcare workers and now forms a critical part of the hospital infrastructure.

“ RCSI safely facilitated my examination at the height of the pandemic, enabling me to join the workforce as a nurse. ”

Snehal Kajwe, Faculty of Nursing and Midwifery Overseas
Aptitude Exam Candidate 2020



05

Professional
training

Faculty of Dentistry



Professor Albert Leung
Dean, Faculty of Dentistry

Founded in 1963, the faculty has more than 2,500 Fellows, Members and Diplomates globally.

We introduced a new category of membership in 2019, "Faculty Affiliates", to help to support other dentists in Ireland and overseas as well as students training to become dentists. Our learning hub, created to make selected materials for Continuing Professional Development (CPD) available, has proven to be extremely popular.

Faculty highlights

- The Dean and the Vice Dean met with the Minister of Health in August 2019 on the new Oral Health Policy. The faculty's concerns on the absence of Foundation Training, a lack of mandatory CPD and the need to fund Specialists and Consultant training were emphasised at the meeting.
- We continued to hold our FFD, MGDS, MFD, and DipPCD examinations in Ireland, Bahrain, UAE, Qatar, Jordan, Malaysia, Malmo, Khartoum and New York, with India coming on board later in 2020.
- The faculty conducted three successful hands-on programmes on Cone Beam Computed Tomography, Minor Oral Surgery and Endodontics at the state-of-the-art RCSI National Surgical and Clinical Skills Centre in Dublin.

- The 2019, the Annual Scientific Meeting entitled "Challenges to Oral Surgery in Dental Practice in the 21st Century" was well attended.
- The monthly Postgraduate Dental Education Programme and the bespoke FFD in Paediatric Dentistry training programme, in conjunction with Hamid Medical Corporation (HMC) in Qatar, continued with bespoke live lectures at RCSI, which were recorded and broadcasted.
- In January 2020, the faculty organised a post-primary careers day in collaboration with the dental schools in Belfast, Cork and Dublin, offering secondary school students throughout Ireland an opportunity an insight into dentistry as a career.
- In February 2020, we ran two intensive (MFD and FFD in Paediatric Dentistry) preparatory programmes and a CPD workshop in Qatar as part of our collaboration with HMC.

COVID-19

With the COVID-19 lockdown in March 2020, face-to-face contacts came to an abrupt end. Eight days into lockdown, the faculty managed to procure and deliver the first exclusively online postgraduate programme, on time and on budget.

Less than three weeks into lockdown, we conducted the first ever exclusively online, proctored, synchronised and secured FFD in Paediatric Dentistry Exams in Qatar, strictly following the examination regulations, with examiners in Ireland and Scotland 3,500 miles away. The faculty's contract with HMC Qatar was renewed in June.

We have successfully moved the Diploma and the MFD examinations online, using a combination of an in-house asynchronous system and a third party proctored remote synchronous system, allowing candidates from anywhere in the world the opportunity to sit our exams from the comfort of their own homes. All our online exams to date have been fully subscribed. The faculty is delighted to be able to continue to facilitate the certification and career progression of our candidates throughout the world during COVID-19.

Less than three weeks into lockdown, we conducted the first exclusively online, proctored, synchronised and secured FFD in Paediatric Dentistry Exams.

Faculty of Radiologists



Dr Niall Sheehy
Dean, Faculty of Radiologists

The COVID-19 pandemic has had a profound effect on all of our lives and our consultants and registrars have been at the forefront of the response to the crisis.



Dr Adrian Brady, former faculty Dean; Dr Niall Sheehy, Dean; Mr Kenneth Mealy, President; and Mrs Margaret Murphy pictured at the Annual Scientific Meeting Conference dinner in September 2019.

The faculty has continued to invest in technology required to meet its training needs. This investment has served us well during the pandemic, as we have been able to deliver remote lectures and tutorials to our trainees and have the capacity to conduct future scientific meetings in an online format.

Scientific Meetings

The faculty's scientific meetings have continued to be successful. In October 2019, the Annual Scientific Meeting was themed 'Hot Topics in Radiology' and covered a wide range of new developments in the field. The January 2020 MRI meeting focused on Musculoskeletal MRI, but due to Covid-19, we had to suspend both the spring and neuroradiology meetings at short notice.

Screening Programmes

The faculty was particularly concerned about the implications of the Cross Judgement on cancer screening programmes and the Supreme Court appeal was an important focus for the faculty. Our Fellows and Members involved in BreastCheck are clearly in the front line in these issues. BreastCheck has been a remarkable success and is practiced to the highest standards. For most of their existence, the screening programmes have operated

successfully without legal challenge. The faculty is concerned that if the trend of legal actions continues, the screening programmes, which operate on a limited budget will rapidly become economically unviable. Moreover it will be extremely difficult to recruit and retain doctors in a programme that is continually defending multiple legal actions. Retrospective reviews for audit and teaching, which are necessary for quality improvement, are also likely to be significantly constrained in this new environment. There will be proposals from the HSE on how to deal with issues involving historical reviews, audit and mechanisms for facilitating patient review of interval tumour, which the faculty fully supports. Our advocacy on the issue was paused as a result of the pandemic but we intend that it will resume.

External relationships

The faculty has submitted a letter of interest to the Medical Council to establish Interventional Radiology as a recognised specialty in Ireland. This is a much needed innovation, and if successful, will be a significant change for the faculty and possibly for the structure of our training programme. This has been led from within the faculty by Professor Michael Lee, who has been ably assisted by the Irish Society of Interventional Radiology, especially Dr Colin Cantwell.

International activities

The faculty has signed an agreement to provide fellowship training for Saudi Radiologists. There is one trainee in post and three more were due to start this summer. We maintain links with the European Society of Radiology (ESR) and the European Union of Medical Specialists (UEMS). On behalf of the faculty and all Fellows, I would like to congratulate Dr Adrian Brady, a former Dean, on his election as Second Vice President of the European Society of Radiology.

At our first Board meeting of this term, Dr Peter Kavanagh was appointed as Dean-Elect after an election at the Board meeting.

Faculty of Nursing and Midwifery



Professor Michael Shannon
Dean, Faculty of Nursing and Midwifery

Established in 1974, the Faculty of Nursing and Midwifery plays a pivotal role in leading and supporting the development of the nursing and midwifery professions nationally through its continuing professional development programmes, research, annual conference, masterclasses and seminars.

Recently, the faculty has focused on collaborations to expand its strategic impact on the national and the international arena. The faculty has had a very significant year with a number of key events, which strategically aligned to the World Health Organization (WHO) International Year of the Nurse and Midwife in 2020.

A Face in the Crowd

The faculty and partners staged a play entitled 'A Face in the Crowd' written by Niall O'Muiri, to raise awareness of mental health and its management. The play was co-created with service-users with the support of Wexford Mental Health Association. 400 people attended the play which was opened by RTE's Ray D'arcy.

Honorary Fellowship WHO Director-General

The faculty conferred an Honorary Fellowship on Dr Tedros Adhanom Ghebreyesus, WHO Director-General, in Geneva, Switzerland in early February. Dr

Tedros is renowned as a researcher and diplomat with first-hand experience in operations and leadership in emergency responses to epidemics. Dr Tedros believes that nurses and midwives are central to the achievement of universal healthcare coverage and the faculty recognised Dr Tedros' contribution to nursing and midwifery globally.

Annual Conference

We hosted our 39th Annual International Nursing and Midwifery Research and Education Conference in February. 400 delegates engaged with global leaders, policy makers and researchers. Honorary Fellowships were conferred on Elizabeth Iro, Chief Nursing Officer, WHO; Lord Nigel Crisp, Co-Chair of the Nursing Now Campaign and Vivien Lusted, Red Cross Detention Nurse and 2019 Florence Nightingale medal winner. Ms Iro and Lord Crisp were subsequently interviewed on RTE and Newstalk respectively.

European Centre of Research Excellence for Continuing Professional Development-Nursing

The faculty launched its European Centre of Research Excellence for Continuing Professional Development in February. Colleagues from over 20 countries attended.

Overseas Aptitude Test

1,211 applicants from 38 countries completed the Aptitude Test to register as a nurse in Ireland. The test continued during COVID-19 with strict adherence to public health requirements. Concurrently, the faculty facilitated a capacity increase of 40% in response to a Government request, thus significantly supporting the country in meeting its increased workforce demands across the HSE and private sectors.

Fellowship Conferring Ceremony

34 nurses and midwives were conferred at the Fellows, Members and Diplomates Conferring in December 2019.



Dr Tedros Adhanom Ghebreyesus, Director-General, WHO is pictured receiving his Honorary Fellowship from Dr Theresa Frawley, Dean, Faculty of Nursing and Midwifery, in Geneva in February 2020.

Faculty of Sports and Exercise Medicine (RCPI and RCSI)



Dr Philip Carolan
Dean of the Faculty of Sports and
Exercise Medicine (RCPI and RCSI)

It has been another busy year for the board, committees and staff of the Faculty of Sports and Exercise Medicine (FSEM) with education and training continuing to be a key focus for the Faculty.

Annual Scientific Conference 2019

The faculty's annual conference, under the theme "Movement is Therapy" took place on 14 September 2019 in RCSI, with a one-day workshop taking place the previous day. The event was once again a joint venture with the Irish Society of Chartered Physiotherapists (ISCP) and Athletic Rehabilitation Therapy Ireland (ARTI). The conference provided a fantastic opportunity to collaborate with colleagues from other disciplines related to Sports and Exercise Medicine, and to strengthen our links with like-minded academics and clinical professionals in this field. The conference was well attended, with 200 delegates, and Honorary Fellowships were awarded to Professor Justin Cobb and Professor Phil Glasgow.

CPD opportunities

The faculty ran two SEMSEP (Sports and Exercise Medicine Structured Educational Programme) modules this past academic year on the topics of "Lifestyle Medicine" and "Medical Conundrums in Sport". Our Spring Study Day 2020 scheduled to take place

last April in Belfast with our colleagues from Ulster University on "Joint Health in Sport", was unfortunately cancelled due to COVID-19. It has now been postponed to April 2021. We ran a number of journal clubs and grand rounds in Dublin and Belfast, and we are now planning more journal club sessions online for the coming year with additional regional tutors. Three webinars have also been in development this spring and will replace our SEMSEP modules for the coming academic year.

Our joint Diploma course in MSK examination and injury management with ICGP ran at full capacity again this year, but the end of year examination, which was due to take place in May, was postponed due to the pandemic. We are currently discussing alternative arrangements for the exam with ICGP and the lead tutors on the course.

Higher Specialist Training in Sports and Exercise Medicine (HST SEM)

In July 2019, we welcomed our first two SpR trainees in Sports and Exercise Medicine, and two new trainees joined them this July, so we now have our full complement of HST trainees on programme.

FSEM website

We launched phase 1 of our new website in February 2020 (www.fsem.ie) which incorporates online registration for CPD activities, and we will commence the development of phase 2 this autumn.

QEO (Quality Enhancement Office) Internal Review

Last year, our faculty was selected for a QEO internal review. Following a formal written submission, an official three-day visit took place in June and the recommendations report from the peer review group was received in the autumn. Our faculty is now in the early stages of developing a Quality Improvement Plan (QIP) as well as a strategic plan for the coming years.

Our faculty is now developing a Quality Improvement Plan as well as a strategic plan for the coming years.

Irish Institute of Pharmacy



Dr Catriona Bradley
Executive Director, Irish Institute of Pharmacy

RCSI is the managing body for the Irish Institute of Pharmacy (IIOp) by the Pharmaceutical Society of Ireland (PSI). The IIOp manages the statutory Continuing Professional Development (CPD) system for pharmacists in Ireland and supports the development of pharmacy practice.

IIOp ePortfolio Review

In January 2020, 1,352 pharmacists (approximately 20% of the register) submitted their CPD Portfolios for review to the IIOp. The reviews were undertaken in the subsequent months, without interruption from COVID-19. Outcomes were released in May 2020 with over 97% receiving an outcome of "Standard Met", indicating the profession's commitment to CPD.

Practice Review

The purpose of Practice Review is to ascertain if pharmacists demonstrate an appropriate level of competence in dealing with patient care. A total of 58 pharmacists undertook Practice Review in RCSI in October 2019 with 57 demonstrating the required standards of competence. Further support is provided by the IIOp to those who do not meet the required standard. Due to COVID-19 health and safety restrictions, the April 2020 Practice Review was cancelled.

Training Programmes and Information Resources

The IIOp continued to add to its existing library of online courses, with new topics including courses on Biosimilar Medicines, Managing Quality in Pharmacy Practice and Oral Anticancer Medicines.

The IIOp held a number of face-to-face training events in 2019, including leadership and mentorship workshops for pharmacists. The annual Peer Support Pharmacist conference was held in September 2019. In October, the IIOp jointly hosted the 9th All Ireland Pharmacy Conference with the Northern Ireland Centre for Pharmacy Learning and Development. Dr Catherine Duggan, CEO of the International Pharmacy Federation, attended as the keynote speaker.

Pharmacists played a crucial role in the front-line response to COVID-19 and the IIOp has focused on supporting them in doing so. The IIOp worked with the PSI to develop a Return to Practice Resource to support pharmacists returning to the register. This resource will be helpful to all pharmacists, particularly those working in a community setting.

The IIOp COVID-19 Information Hub was also developed and launched, in collaboration with the PSI and HSE. This repository provides up-to-date, comprehensive information for pharmacists in relation to COVID-19. The Hub is an open access resource, accessible from the IIOp website.

Following consultation with the peer support network, the IIOp "In conversation with..." webinar series was launched in April 2020, to respond to the needs of pharmacists during COVID-19.

The content of the IIOp webinars, ranged from personal resilience to COVID-specific issues such as infection control and quality assurance of medical devices. Up to 450 pharmacists joined weekly, and indicated that the webinars provided important support for them. The IIOp thanks HSE stakeholders, practising colleagues and experts who featured as guest presenters, particularly our colleagues from RCSI, including Dr Mary Collins, Catriona Campbell and Professor Eva Doherty. Recordings of the webinars are available on the IIOp website.

This repository provides up-to-date, comprehensive information for pharmacists in relation to COVID-19.



Niamh O'Hanlon, Irish Institute of Pharmacy, Continuous Professional Development programme participant

I am Chief II Pharmacist managing the Medicines Information (MI) service at St Vincent's University Hospital. The MI service answers approximately 1,600 medication related enquiries annually; provides support to the Drugs and Therapeutics Committee; publishes a quarterly pharmacy newsletter, and contributes to medication guidance via intranet, and Medicines Guide. I also provide a clinical pharmacy service to the Vascular, Cardiothoracic and ENT ward/acute care unit.

With the speed and volume of information regarding experimental medicines use in the pandemic, risk mitigation with same, support for clinical trials, and sourcing medicines, April 2020 was the busiest month on record for the MI service.

The IIOP weekly seminars were an opportunity to pause, reflect and centre yourself, whilst engaging in a relevant topic. The appropriately pitched weekly webinars were inclusive, relevant and timely.

The COVID resource hub co-ordinated by the IIOP is a welcome addition – I look forward to seeing this resource expand, as we've seen the focus of COVID-19 information required differs between hospital and community pharmacy settings.

The IIOP illustrated how video conferencing with active engagement and participation in a professional community works – in essence they took away the fear, and provided an enjoyable platform to engage and learn in a pharmacist community.



“ I am proud of
how my University
has contributed
to the national
and global efforts
in tackling the
pandemic. ”

Husain AlQari, Senior Cycle 1, RCSI
medical student, Bahrain Campus



06

International
campuses

International
campuses



Pictured at PU-RCSI's 4th Convocation are Professor of Medicine, Prof. Frances Meagher; Dean, Prof. Michael Larvin; Ireland's Ambassador to Malaysia, Hilary Reilly; President, Kenneth Mealy, Faculty of Medicine and Health Sciences Dean, Prof. Hannah McGee, Irish Embassy Deputy Head of Mission, Catherine Aylward; and Deputy Dean Prof. Karen Morgan.

International campuses

The international reach of RCSI's education and research missions is epitomised by our campuses in Bahrain, Malaysia and Dubai. Despite the challenges presented by COVID-19, our academic and professional staff continued to drive innovation in international medicine and health sciences education and research during the past 12 months.

RCSI Bahrain

A key focus of RCSI Bahrain's healthcare education programmes is ensuring the medicine and nursing students have developed the essential clinical skills to become qualified and highly competent doctors and nurses. These competencies include taking accurate histories, performing thorough examinations and being involved in ward-based training.

Class of 2020 Graduation

Since teaching hospitals were inaccessible during the pandemic, RCSI Bahrain obtained permission from the Health and Education Ministries to conduct on-campus clinical examinations for the School of Medicine students. The exam dates were also moved forward to allow for an early graduation. Faculty members redesigned the examinations to suit the new conditions while still ensuring that students were able to demonstrate an attainment of the core learning outcomes alongside being safely assessed as competent interns.

Initially, final year students from the School of Nursing and Midwifery could not complete their clinical placement in time for graduation due to the teaching hospitals unavailability.

However, discussions with the Health and Education Ministries resulted in an agreement to allow final year nursing students to recommence their placements and complete their training, which would help them graduate on time and join the workforce. The placements were allocated so that students would not be working on COVID-19 wards, but their presence would free up more experienced colleagues to be deployed to more critical areas.

RCSI Bahrain held virtual conferring ceremonies on 24 June 2020 for the Class of 2020 graduates from the School of Medicine, the School of Nursing and Midwifery and the School of Postgraduate Studies and Research.

Evolving the delivery of teaching

RCSI Bahrain already had the Moodle Virtual Learning Environment (VLE) platform in place; however, it was later expanded to enable the faculty to deliver an online curriculum. For the next academic year, a shared VLE platform between Dublin and Bahrain, campus-based, face-to-face teaching, a flipped classroom approach and the use of recorded lectures will ensure a rich and blended learning experience for the students.

The past number of months have highlighted the need to expand the use of technology to provide an enhanced digitally engaged learning experience. RCSI Bahrain has opted for Blackboard Collaborate, a virtual classroom solution, to enable interactive teaching and facilitates the sharing of recorded lectures across campuses.

Student engagement

The shift towards online learning in the current COVID-19 situation brought a greater challenge for students to be successfully engaged in their studies at RCSI Bahrain.

Since student engagement is essential for academic progress, we have redesigned numerous programmes and activities run by the Student Development and Wellbeing Department, with particular focus on the Personal Tutor Programme, Buddy Programme and online learning/pastoral support mechanisms.

Participation in national clinical trials

Under the direction of Professor Stephen Atkin (Head of School of Postgraduate Studies and Research),

RCSI Bahrain was nominated to establish, facilitate and support the national response for all COVID-19 clinical trials. To maintain our mission of serving the global patient community and advancing human health, RCSI Bahrain has been pivotal in two clinical trials: the National Convalescent Plasma Clinical Trial in COVID-19 patients that has been completed and the Favipiravir Clinical Trial in partnership with our clinical colleagues and graduates. Three COVID-19 related publications have resulted to date, with 5 submitted.

PU-RCSI

PU-RCSI School of Medicine is a collaboration between RCSI and Perdana University (PU) in which the RCSI five-year undergraduate medicine programme is completed wholly in Malaysia. The academic programme was modified to allow students to progress despite restrictions from the COVID-19 pandemic, highlighted by the completion of studies by 40 Senior Cycle (SC) 2 students due to graduate at November's RCSI Conferring.

Fourth convocation

The 'Class of 2019' was the School's fourth graduating class, with all 56 attending Convocation on 20 October 2019 with guests from RCSI including President Kenneth Mealy and Faculty Dean, Professor Hannah McGee.

Teaching hospital visit

On 20 January 2020, an RCSI delegation led by Professor P. Ronan O'Connell, RCSI Vice-President, met pre-clinical faculty and students, followed by



The launch of the Malaysia Ireland National Training Programme for Family Medicine which took place in October 2019 at RUMC.



Eunan Friel, Managing Director of Healthcare Management pictured with Dr. Ramadan AlBlooshi, CEO of Dubai Healthcare City Authority – Regulatory (DHCR), at the launch of Professional Diploma in Clinical Leadership at Arab Health 2020

meetings with clinical faculty members and students at KL Academic Centre, adjacent to Hospital Kuala Lumpur. A courtesy visit to thank the Hospital's Director, Datuk Dr Heric Corray, for hosting RCSI students was followed by a hospital tour and evening dinner with Professor April Roslani, President, Malaysian College of Surgeons.

Student Research

During summer 2020, 29 students will undertake projects adapted for secondary data analysis and systematic reviews due to COVID-19 restrictions. Later this summer SC1 student Santralega Lingam

Professor Karen Morgan led the Malaysian component of a study of determinants of health behaviour during the pandemic involving 15 countries.

will present at the "Future Physiology 2020" virtual meeting of the UK Physiological Society on "Oestrogen Regulation of the Wnt/Beta-Catenin Pathway in Colorectal Cancer", resulting from her summer 2019 elective with Dr Jean McBryan and Ms Maria Abancens at Beaumont Hospital.

PU-RCSI staff and COVID-19

Mercy Malaysia provided telephone hotlines offering "Psychological First Aid", providing practical help to those distressed by the pandemic. Psychology and Behavioural Sciences faculty members Professor Karen Morgan, Nur Arfah Zaini and Darlina Hani Fadil Azim participated from the outset. Darlina Hani Fadil Azim featured twice on the 'Bernama' national TV news channel with tips for self-care.

Professor Karen Morgan led the Malaysian component of a study of determinants of health behaviour during the pandemic involving 15 countries across Europe, Asia and Africa. Professor Manoj Valappil, Microbiology Lead, worked with the 'COVID Test for Malaysia' charity to distribute 30,000 swabs, 3,600 reagent sets and 28,000 PCR kits to government laboratories.

RCSI & UCD Malaysia Campus (RUMC)

RUMC officially welcomed Professor David Whitford as its new President and CEO in June 2020. Over the year, RUMC appointed a number of new Head of Departments including Prof. Ronan Gleeson (obstetrics and gynaecology), Prof. Andrew Law (Psychiatry), Prof. Bikramjit Pal (Surgery) and Associate Prof. Harinarayan (Family Medicine).

New postgraduate training programme

A major highlight of the year was the launch of the new postgraduate training programme for General Practice – the Malaysia Ireland National Training Programme for Family Medicine (MINTFM). The MINTFM programme was officially launched on Monday, 21 October 2019 by Datuk Dr Noor Hisham Abdullah and Her Excellency Ms Hilary Reilly, Ambassador of Ireland to Malaysia. This collaboration between RUMC, ICGP, iheed and the MoH commenced with 35 trainees.

Events

RUMC remains involved in multiple community events, including sponsored walk for Thalassaemia Society, World Alliance for Breastfeeding Action, International Women's Day and Mental Health Week. The Department of Paediatrics is particularly involved in Kangaroo Mother Care Advocates Malaysia and promoting Kangaroo baby care in Malaysia.

Dato' Dr Godfrey Geh, who graduated from RCSI in 1965, was instrumental in the establishment of the Penang Medical College in 1996 in a joint venture with RCSI and UCD, now known as RCSI & UCD Malaysia

Campus (RUMC). In a ceremony in RCSI, Dublin on 15 February 2020, Dato Dr Geh was awarded an Honorary Fellowship from RCSI for his contribution to medicine and medical education.

Research

RUMC continues to host the Malaysia Cochrane Centre and has been active in publication of two reviews and one protocol, as well as running training workshops throughout the past year. Research Day again showcased an impressive array of both student and staff research.

COVID-19

RUMC has maintained its commitment to putting students first since working from home under the Movement Control Order (MCO) on 18 March through to the partial opening of the campus for staff on 12 May and to final year students returning to campus and clinical training on 1 July.

Staff, students and alumni have all engaged in supporting the community through the pandemic, notably through online training of teachers by the Department of Paediatrics in handwashing and social distancing of children prior to the re-opening of schools.

RCSI Dubai

In September 2019, RCSI-Dubai welcomed 54 new scholars onto its two Masters programmes in Healthcare Management, Quality and Safety and the newly launched Leadership and Innovation. At the conferring ceremony in November, 63 MSc scholars were conferred, bringing the total number of graduates from RCSI Dubai to 804.

This year, a Memorandum of Understanding (MOU) was signed between RCSI and Dubai Healthcare City Authority – Regulatory (DHCR) at the Arab Health Exhibition. The two organisations affirmed mutual interest in joint efforts in community engagement and local healthcare agendas through innovative education and training. A Professional Diploma in Clinical Leadership and Innovation was launched together in March and attracted 17 participants.

A tailored seven-month executive development programme on “Leadership and Innovation for Women in Healthcare” was delivered for Johnson & Johnson. 23 emerging female leaders based in the UAE, Egypt, Saudi, Turkey and Lebanon have been conferred.

As a result of COVID-19, the majority of the second semester was delivered through a digitally engaged experience, with the aim to continue to support healthcare staff while minimising the exposure risk for students and preserving the learners’ experience and intended learning outcomes.



Dr Fatma Mohammed AlJassim, Year 2, MSc in Healthcare Management, RCSI Dubai

In my roles as director of Paediatric Department and Paediatric Pulmonology Division at Latifa Women and Children Hospital and a consultant paediatric pulmonologist at Mediclinic City Hospital in Dubai, I treat and improve the lives of children with pulmonary diseases at both Hospitals.

During the COVID-19 pandemic, I have demonstrated resilience to shoulder extra responsibilities including completely rearranging the paediatric department and the paediatric emergency workflow. I allocated staff and their duties to encourage them to volunteer at different isolation locations and screening centers in Dubai and deliver high-quality care to all patients including those normally out of our scope of service. I was also responsible for developing up to date flowcharts, pathways and clinical treatment protocols for COVID-19 patients as well as educational flyers in several languages.

Education globally has changed dramatically as a result of the COVID-19 pandemic and RCSI has ensured that equivalent learning outcomes have been delivered to the usual high standard to all students with specific online delivery of content and face to face teaching in smaller class sizes to ensure health and safety. I have had access to the same expert lecturers and clinicians who worked creatively to adapt programmes to the new arrangements and the provision of recorded resources has enhanced my learning.

Studying the master programme with RCSI was one of the best decisions of my life. The programme has helped me open up and harness the skills that I am now using in my day to day life, providing me with a new outlook for my job, and adding value to my career.

“ By implementing remote workforce technologies, we moved the University online, enabling teaching and operations to continue following the campus closure. ”

Ruth Meredith, IT Service Delivery Manager and member
of the RCSI Business Continuity Planning Group



07

Enabling
our vision

Campus Development



Michael McGrail
Director of Corporate Strategy

The RCSI Strategic Plan 2018-2022 includes the commitment to build a world-class campus, and we are well on our way to achieving this.

26 York Street has now been fully operational for three academic years. The €80 million, ten floor building has transformed healthcare education in Europe, and its unique design elements have been recognised with a number of national and international awards since the building's opening. Recent awards included the SCONUL Library Design Award 2019 (Small Libraries Category) and Irish Laboratory Awards 2019 (Education Laboratory of the Year).

Our Dublin campus has seen other significant investment. Phase 2 extension to the Smurfit Building at Beaumont Hospital was completed, providing radically improved research, teaching and social space for RCSI students and staff. The Mercer building was completely refurbished allowing the transfer of the Graduate Entry Medicine school from Sandyford to Dublin city centre.

We are now focused on the next major campus development at the Ardilaun Centre. This is an existing three-block office development adjacent to 26 York Street.

Project Connect will see a €90 million redevelopment of Block A of the Ardilaun Centre, which fronts onto St Stephen's Green. Planning consent has been received from Dublin City Council, with enabling works planned to commence in the near future.

We know that the complex healthcare problems facing the world today will require collaboration to solve, which is why Project Connect is not just about building a campus. It is about creating a hub in which students, professionals, researchers, leaders, policy makers and the public can come together to learn and be empowered to advance healthcare together, for Ireland and around the world.

The redevelopment of Ardilaun Block A will further transform the way in which we educate our students so they can learn, grow, and prepare to take their place as the medical leaders of the 21st century. It will also provide a space that engages and involves the local community and plays a dynamic role in the life of the city.

The COVID-19 pandemic has accelerated many innovations in teaching, research and professional training, and we remain dedicated to providing a rich on-campus experience for our students and professionals. Our vision for the campus development over the coming years remains aligned with our commitment to providing an engaged and safe education environment for students while maintaining the pipeline of well-prepared graduates for our health systems in the coming years.



Project Connect, St. Stephen's Green

Information technology



Justin Ralph
Chief Technology Officer

In response to the the COVID-19 pandemic, our Business Continuity Team was assembled and began to meet daily to review our contingency plans in the event of closure – with IT provision for both staff and students firmly in the spotlight.

In addition to our Business Continuity Team, a parallel working group was established within the IT and Transformation department to review how the University could move from the “physical to the virtual” literally overnight in the event of campus closure. A few key decisions were agreed early:

1. Utilise existing technology.
2. Undertake intensive training and support for our lecturers in the use of this technology.
3. Provide a simple consolidated training and implementation plan for all staff in the University.
4. Engage, train, and utilise “IT super users” across the University to assist with the implementation.
5. Communicate with the students.

RCSI more than stepped up to the challenge and endeavoured to put the needs of our students at the forefront of all our actions and deliberations. RCSI is still on this “hybrid” transformation journey. As good as it has been, it is still no replacement for physical lectures, live tutorials, and physical presence. Students come to university for both the experience of learning and the experience of living. In the new world, there will have to be room for both. If undertaken correctly, the “physical” will be complemented by the more engaging elements of the “virtual”.

As well as catering for COVID-19, it has been a busy year for the IT Transformation team, such as completion and delivery of a number of IT projects:

- Research Profile and Grant Management System, which will be instrumental in our drive to improve our global reputation and garner internal efficiencies.
- Research Storage and Quantum Compute solution, providing storage space (both on premise and within the cloud) and access to quantum computing to our researchers.
- Final phase of the RCSI website, “RCSI Inc”.
- A CRM application for marketing, reputation, digital recruitment, and clinical relationships.
- Transition to a cloud-based environment for all university-based applications.
- Movement from 11 instances of Moodle to “One Moodle” across Dublin and Bahrain.
- Continued investment in Wi-Fi, Data Protection and Security.

Our projects are committed to supporting growth, increasing efficiencies across the University, improving the reputation of RCSI, and providing a better student experience that will also improve their career options. RCSI is well into its transformative journey, and the leveraging of cloud technologies to enable collaboration, innovation, and development of digital capabilities will remain one of our key objectives.

A working group was established within the IT and Transformation department to review how the University could move from the “physical to the virtual” in the event of campus closure.

Development - Alumni Relations, Fellows and Members



Aine Gibbons
Director of Development, Alumni
Relations, Fellows and Members

Despite the challenges posed by the current global situation related to COVID-19, the Development – Alumni Relations, Fellows and Members teams continued to advance RCSI’s external relationships to build mutually beneficial engagements with our committed communities.

RCSI TOMORROW campaign

The Development team focussed on driving progress to ensure the ongoing success of the RCSI TOMORROW campaign, which has built up significant traction over the last four years and has raised €14 million to date. Of necessity, we adapted our fundraising to also support urgent priorities dictated by the pandemic. A brief overview of campaign success and emergency fundraising follows.

Creating healthcare leaders

In a year of firsts, the first female surgical fellowship was awarded in 2020 to promote female participation in surgical training in Ireland.

Providing essential support for our students became a priority, and we launched #RCSITOGETHER for Our Students’ Future campaign to support students who are struggling because of the economic impact of COVID-19 whilst still trying to continue their studies. We will offer more scholarships than ever before, awarding students internationally to enable them to pursue their dream of becoming medical professionals.

Building healthier societies

RCSI has a unique global perspective on public health. In 2020, we welcomed Professor Mark Shrive as the inaugural O’Brien Chair of Global Surgery, made possible following the largest donation in RCSI’s history. Professor Shrive joins RCSI from Harvard Medical School and the Massachusetts Eye and Ear Infirmary, where he was founder and Director of the Center for Global Surgery Evaluation.

Advance breakthrough research

RCSI seeks to lead impactful studies to address key health challenges. In April, the Comfort for Carers appeal raised vital funds for the RCSI School of Nursing and Midwifery to purchase Wound Care Kits, created to help alleviate the occurrence of face mask skin injuries for frontline ICU staff. Such was the impact of the study, the kits have since been expanded to reach a wider population.

Thank you

We continue to be deeply grateful to all the individuals and companies who, through their philanthropic support, enable RCSI’s ambition.

We adapted our fundraising to support urgent priorities dictated by the pandemic.

ALUMNI RELATIONS

Cultivating a sense of community and togetherness

By the early months of 2020, the Alumni Relations team had already connected with 1,070 alumni at a number of successful events and reunions in the US, Middle East and Ireland. Plans for key events such as the Alumni Awards 2020 were dashed as a result of COVID-19; however, the pandemic presented an opportunity to innovate and explore new, exciting ways of engaging with alumni. We mobilised the alumni community to support each other as well as our current and new students. Highlights of a very busy programme include:

- “Alumni Messages of Support” campaign delivered many inspirational messages and images from alumni on the frontline to the entire alumni community;
- Responding to demand, Alumni eNews increases in frequency from monthly to weekly;
- A special edition of the annual Alumni Magazine was published and delivered to 9,000+ alumni and digitally to 21,000;
- Alumni participated in the first ever virtual Results Day and the subsequent online Conferring as they sent messages of congratulations and support to the Class of 2020;
- Mentor Network was launched with 100+ actively engaged mentors; and
- 118 alumni volunteered to participate in the #RCSIlwelcome campaign, to provide guidance and advice to new students arriving in September.

FELLOWS AND MEMBERS

Keeping our Fellows and Members informed

Engagement between RCSI and our surgical Fellows and Members intensified during the early months of the pandemic. Weekly email updates have been issued since March to keep our community abreast of the work RCSI is undertaking in supporting surgeons and the surgical profession as well as providing

updated guidance for surgical practice and resources available. Ten ‘Surgical Bulletin’ eNewsletters and five editions of The Surgeon journal, a dedicated peer-reviewed surgical research journal published in conjunction with the Royal College of Surgeons of Edinburgh, were issued along with our own print magazine ‘Surgeons Scope’ to ensure we delivered on our commitment to keep our community informed.

Facilitating contact and dialogue

The Fellows and Members Office is exploring the attitudes and motivations of Fellows and Members in maintaining their affiliation with RCSI. The data and feedback collated in this research will inform ongoing strategic improvements to our supports and services. We hosted over 500 Fellows and Members at key events throughout the year, including the North American Chapter of Fellows in San Francisco, a regional meeting in Limerick, a reception at the House of Lords in London, the 2019 Millin Meeting and the 2020 Charter Day celebrations. We look forward to maintaining our events programme virtually over the coming months to facilitate productive, constructive dialogue between RCSI and our Fellows and Members.



Dr Ravin Sadhai and Dr Mary Lynch pictured at the Alumni Gathering Welcome Reception in August 2019



Membership conferring ceremony in Penang, Malaysia.

Growing and maintaining the community

More than 180 new Fellows and Members were welcomed to the University in November and December 2019 at three conferring ceremonies held in Dublin, Penang and Bahrain. A further 109 were admitted by necessity, in absentia, in summer 2020. We look forward to a resumption of the conferring schedule when it is safe to do so. In the meantime, we continue to liaise with all new and existing Fellows and Members regularly to offer our services.

The RCSI Alumni network gave me a platform to discuss the latest guidelines and treatments with colleagues in frontline roles across the world.



Dr Veer Pushpak Gupta, Medicine, Class of 2012

In February 2020, I remember watching BBC after work one night, hearing about the first cases of COVID-19 in Europe, unaware of how the dangerous tsunami of cases will be hitting our shore very soon. Within a month, I was in the thick of it all. A frontline responder and survivor to the devastation that COVID-19 caused in the UK.

I am an RCSI alumnus and currently a General Medicine Registrar and an Associate in training with the Royal College of General Practitioners in the UK. I was working on the Acute Medical Unit when the first cases of COVID-19 started to walk through our doors. At the height of it all we were seeing close to 25 COVID-19 patients a day. I was myself infected and spent 2 weeks in recovery after treating a positive patient.

The RCSI Alumni network gave me a platform to discuss the latest guidelines and treatments with my colleagues and batch-mates who currently work in various frontline roles across Europe and the rest of the world. It truly is a global network of medical experts that I am proud to be part of.

Human Resources



Barry Holmes
Director of Human Resources

The HR team's primary focus remains to support all of our staff to achieve their full potential. Due to the unprecedented circumstances arising from the COVID-19 pandemic, more so than ever, we focused our efforts on continuing to build on our engaged, innovative and inclusive culture.

Since March, our priority has been to support the health and well-being of our staff with connectivity firmly at the forefront of our considerations. The HR Director is sponsor and Chair of RCSI's Business Continuity Workgroup (BCP), which was the collaborative taskforce charged with coordinating the efforts to ensure the transition to a remote working model was executed smoothly. In recent months, the focus of the BCP group shifted to lead and coordinate the efforts to reopen campus, again prioritising safety and connectivity.

To support our staff, HR launched a new employee-facing brand #RCSIttogether. Under this brand, our aim was to reinforce our positive culture and highlight tools and techniques from positive psychology to support our colleagues. We introduced a weekly bulletin sharing key messages under four themes: Learning, Health Science, Minding Others and Minding Yourself. The #RCSIttogether Webinar series brought a range of our internal experts together to share evidence based approaches to support our physical and mental health.

We conducted two Pulse surveys of our staff to gauge how they were adjusting with the transition. We were pleased to see 98% of staff agreeing that RCSI was communicating effectively with employees and 93% reporting they feel supported during these times. Outside of our efforts in relation to the COVID-19 response, the HR team has also delivered on a number of other initiatives to support the 'People and Culture' strategic enabler.

Face-to-face learning opportunities remained popular, with more than 600 staff participating in internally-offered courses through the academic year. The third cohort of participants completed the Managing Through People (MTP) programme in March 2020. The aim is to give all people managers within RCSI the opportunity to enhance their skills and confidence as leaders. 11 of our colleagues completed the Aurora Womens Leadership development programme, with the final session moving online in response to the COVID-19 pandemic.

We were delighted to launch the new online PDP process in January, replacing the legacy paper-based system. Moving PDP online is another example of our drive to improve efficiencies in line with the principles of #BetterRCSI. Engagement levels were the highest recorded with 85% of staff having submitted their PDP Objectives for 2020 online.

The HR Team continues to enhance the analytics and data reporting capability on key people metrics to the Senior Management Team (SMT). Together with the staff survey results, quarterly dashboards provide SMT with additional information and insight to make more impactful decisions.

We successfully upgraded to the latest version of the CoreHR system in May 2020. Although the timing of this upgrade was challenging, given the ongoing COVID-19 crisis, it was a worthwhile collaborative project between the HR Operations team, the Payroll team and IT.

Our priority has been to support the health and well-being of our staff with connectivity firmly at the forefront of our considerations.

Equality, Diversity and Inclusion

RCSI is committed to embedding equality, diversity and inclusion (EDI) across everything we do. We want to ensure that everyone in RCSI is treated fairly regardless of age, disability, family status, gender, marital status, membership of Travelling community, race, religion, sexual orientation or socio-economic status.

In order to meet our legal obligations and progress our work, we developed a set of six EDI Strategic Objectives 2018 – 2022 across the themes of Foundation, Data, Accountability, Knowledge, Community and Collaboration. Good progress has been achieved across all objectives.

The EDI Unit worked with the Quality Enhancement Office to undertake annual staff and student consultation in November 2019 and January 2020 to identify issues and track progress.

The EDI Committee was established, and is responsible for advising the Senior Management Team on all equality, diversity and inclusion matters in RCSI.

We continued to roll-out a number of education and training activities including online training on unconscious bias training and cultural competency. Staff and students also attended a number of classroom-based EDI trainings.

The Ageing Friendly, LGBT+ Pride, Parents and Carers' Men's Shed and Women's Staff Networks continued to host meetings and events, with network activity continuing virtually following COVID-19. The range of activities included landmark events for Positive Ageing Week and Pride Week.

The Appreciating Culture Lecture Series continued to highlight topics examining the inequalities faced by ethnic minorities working and studying in Ireland.

Prior to the campus closure, the EDI Unit, with Conferences and Events and the Library, had facilitated 22 tours of the Women on Walls portraits in the Board Room located in the RCSI's historic building on St Stephen's Green, reaching almost 1,400 visitors.

The EDI Unit also continued to build partnerships with 18 external national and international stakeholders to bolster RCSI EDI initiatives.

RCSI continued to implement its Athena SWAN Action Plan as part of its commitment to gender equality. The Department of Anatomy and Regenerative Medicine was conferred an Athena SWAN Bronze Award during the reporting period.

In December 2019, RCSI became the second Age Friendly University (AFU) in the country. The AFU Network consists of higher education institutions who have committed themselves to becoming more age-friendly in their programs and policies.



Pictured at the launch of RCSI's Age Friendly University network in December 2019 were Julia Morrow, Sarah Fink, Oliver O'Flanagan, Amanda Wilkinson, Lorna Murphy and Leonie Heskin.

Finance



Jennifer Cullinane
Director of Finance

As a registered charity, RCSI endeavours to further its education and research objectives through its many activities in line with its mission “to educate, nurture and discover for the benefit of human health”.

Background

Founded as the national training body for surgery in Ireland under Royal Charter, RCSI has been at the forefront of healthcare education since its establishment in 1784. Today RCSI is an independent not-for-profit, world leading, international, health sciences university and research institution, offering education and training at undergraduate, postgraduate and professional level.

In December 2019, RCSI was granted independent university status. It continues its long-standing affiliation with the National University of Ireland. Its medical programmes are accredited by various bodies including Quality and Qualifications Ireland (QQI) and the Irish Medical Council. In 2010, the Charter was changed under Irish legislation to provide for the designation of the College as a statutory degree awarding body.

Key Activities

As a registered charity, RCSI endeavours to further its education and research objectives through its many activities in line with its mission “to educate, nurture and discover for the benefit of human health”.

Although headquartered in Ireland, the University’s education, training and research activities span Europe, Asia, the Middle East and Africa. RCSI operates three medical schools overseas, one in Bahrain and two in Malaysia (Perdana and Penang), with healthcare management programmes in the United Arab Emirates. The postgraduate professional training programmes extend beyond the programmes run in Ireland and include surgical training activities supporting the College of Surgeons East, Central and Southern Africa (COSECSA), with the support of Irish Aid. RCSI collaborates with other higher education institutions through research studies, runs various outreach programmes with local communities and is the academic partner of the RCSI Hospital Group.

RCSI contributes to building the reputation of Ireland as an international centre for education as evidenced by its ranking among the top 250 universities worldwide in the 2020 Times Higher Education (THE) World University Rankings. The University also makes a significant contribution to the Irish economy every year. As one of Ireland’s largest indigenous services exporters, RCSI employs over 1,100 people in the country. We estimate that close to 2,000 indirect jobs across the Irish economy are supported through the expenditure of our staff and students.

Financial Management

The RCSI Council has responsibility for the University’s financial affairs, as the governing body of the institution. Certain functions are delegated to the Finance and Audit Committees.

The University operates primarily a self-funding model with in the region of 15% of revenue derived from public sources. In line with its charitable remit, all surpluses earned are reinvested for the furtherance of RCSI’s objectives. There is a strong focus on generating annually a positive cash flow to ensure commitments in terms of current and capital requirements can be met. These include day-to-day working capital needs, debt servicing

We estimate that 2,000 indirect jobs across the Irish economy are supported through the expenditure of our staff and students.



and campus infrastructure investment. Significant capital expenditure projects are funded through an appropriate balance of reserves and debt. Reserves are maintained to provide for continued investment to ensure the relevance of our market offering and to enable responsiveness to general market volatility.

Overall the financial strategy adopted for the organisation is to ensure robust financial stewardship, to both underpin the sustainability of its operations and realise its mission in an increasingly competitive market place, recognising the uncertainties of a pandemic environment.

Review of the year to 30 September 2019

Overall, the University's financial performance for the year ended 30 September 2019 remained broadly steady year on year and in line with approved plans, including bank covenant requirements.

Consolidated Statement of Revenue and Expenditure

	2019 €m	2018 €m
Revenue	197	186
Operating costs	(164)	(158)
Depreciation	(8)	(8)
Interest (net)	(2)	(3)
Operating surplus	23	17
Unrealised non-operating (loss)/gain	(4)	5
Net surplus for financial year	19	22

Note: 82% revenue was generated through Irish entities

The majority of revenue continues to be earned from those activities that are core to the organisation's mission. These include degree awarding activities, professional postgraduate training and research programmes, with a valuable source of ancillary revenue derived from its investment and development portfolio. Public funding sources, including research grants account for 15% of total revenue. During the year, revenues grew by 6%, largely due to increased research grant funding and steady growth in education programmes including modest increases in international fee rates. Student numbers stand at more than 4,000 in Ireland with representation from over 60 countries. Greater than 50% of students attending do so under a sponsorship agreement or other supports.

Operating costs increased by 4% year on year, mainly due to the continued rollout of investment initiatives under the RCSI strategic plan 2018-2022. These initiatives cross the three pillars of education, research and service, together with enablers including digital innovation and campus infrastructure. As a higher education institution, staff related costs account for the majority of operating expenditure. Ensuring value for money, seeking efficiencies under the continual process improvement "BetterRCSI" programme and a sustainable environment agenda, underpin operational delivery.

Unrealised non-operating net losses in the year, which are required to be recognised under International Financial Reporting Standards, include currency impacts and investment property and a net deficit on the pension scheme valuation. The defined benefit pension scheme remains in deficit at €29m as measured under accounting standards. The funding plan, agreed with the Irish Pensions Board following the 2012 restructure, remains broadly on track but under pressure given current market conditions.

An operating cash surplus equivalent to just under 3% of revenue was generated in the year, having met commitments relating to debt service and capital expenditure plans. Tight management of cash reserves continues to be a focus and the minimisation of the effects of a negative interest rate environment.

Balance sheet

Overall, the net asset value of the organisation increased by 6% as a result of a strong financial performance, improved property and other valuation

surpluses, offset by an increased pension scheme deficit. The capital programme in the year amounted to €10m in respect of the digital transformation project and campus infrastructure investments. Loan refinancing was successfully concluded shortly after the year end, with the result that the majority of loans were classified at the year end as current liabilities.

Consolidated Balance Sheet

	2019 €m	2018 €m
Non current assets	394	387
Current assets	251	247
Total assets	645	634
Current Liabilities	200	127
Non current Liabilities	118	199
Total Liabilities	318	326
Net assets	327	308

The University has a number of investments through subsidiary structures in support of its mission. In Ireland, these include a clinical research centre at the Smurfit Building, Beaumont Hospital (Clinical Technologies & Research Development Ltd), a property management services company (West Green Management Company Ltd) and a travel company (RCSI Travel DAC) to support the delivery of programmes overseas. Operations overseas include a medical university in Bahrain, and a joint venture with University College Dublin in Malaysia (RUMC, formerly known as Penang Medical College).

Conclusion

Overall, the University's financial performance has remained steady, in line with approved plans and bank covenant requirements. As we look forward and plan to operate in a COVID-19 environment, we remain mindful now more than ever of the need for healthcare leaders. As an organisation, we have put plans in place to deal with the challenges we will face, including the increased safety protocols to ensure the safety of our staff and students. We continue to look to the future seeking new opportunities in healthcare education and recognise the role that RCSI clinicians and researchers play in the global search to counter the effects of COVID-19.

In what has been an unprecedented period, I acknowledge the significant efforts of all RCSI staff and in particular my finance and senior management colleagues for their collaborative engagement in delivering a sustainable financial plan. Despite the challenges it will bring, we look forward to the next academic year, with the benefit of digital investment and the commitment and flexibility of staff across RCSI.

Despite the challenges it will bring, we look forward to the next academic year, with the benefit of digital investment and the commitment and flexibility of staff across RCSI.

Thank you

We are deeply grateful to all the individuals and companies who enable RCSI to realise its ambition through their philanthropic support.



Appendix 1

RCSI Postgraduate Surgical Awards 2020

RCSI is committed to encouraging the acquisition of additional training and skills outside the structured programmes of the College and, to this end, provides a range of scholarships and grants in postgraduate surgery to assist surgeons-in-training and recently appointed consultant surgeons, to gain additional expertise in centres of excellence overseas.

RCSI Colles Travelling Fellowship in Surgery

Eamon Francis towards his International Clinical Fellowship in reconstructive microsurgery - Chang Gung Memorial Hospital, Linkou, Taiwan

RCSI Surgical Travel Grants

- Ailin Roger towards her fellowship in robotic surgery for advanced pelvic cancer at The Royal Marsden Hospital, Fulham Road, Chelsea, London.
- Peter Lonergan towards his fellowship in pelvic and upper tract robotic urologic oncology, University of California, San Francisco, USA.
- Helen Mohan towards her advanced colorectal cancer fellowship at the Peter MacCallum Cancer Centre, Melbourne, Australia.
- Gregory Nason towards his senior robotic pelvic oncology fellowship at Royal Surrey Hospital, Guildford, UK.

Joint ACS/RCSI Resident Exchange programme

Gary Bass was the nominated RCSI recipient

RCSI/Ethicon Foundation Travel Grants

- Katherine Brown - towards advanced training in hand surgery at Oxford University Hospital, NHS Foundation Trust.
- Robbie Woods - towards a head and neck fellowship in the Otorhinolaryngology Head and Neck Surgery Service at the Auckland City Hospital, Auckland, New Zealand.
- Conall Fitzgerald - towards a fellowship in head and neck surgical oncology at the Memorial Sloan-Kettering Cancer Center

RCSI PROGRESS Women in Surgery Travelling Fellowship

Awarded to Ailin Rogers towards her fellowship in robotic colorectal surgery and multivisceral resection for advanced pelvic malignancy at the Royal Marsden Hospital, London

The RCSI/IITOS Travelling Fellowships

- Four RCSI/IITOS Travelling fellowships were awarded:
- Tristan Cassidy towards a senior clinical fellowship in trauma and orthopaedics – shoulder and upper limb, South West London Orthopaedic Centre.
- Yahya Elhassan towards a foot and ankle fellowship at Leeds Teaching Hospital, UK
- Niall McGoldrick towards the Ottawa fellowship program 2020-2021, at the Ottawa Hospital.
- Shane O'Neill - towards a Fellowship at the Queen Elizabeth II Health Centre, Halifax, Nova Scotia, Canada.

Irish Travelling Fellowship, RCSI/RSM Section of Coloproctology

Ian Sean Reynolds to attend the annual (overseas) meeting of the Section of Coloproctology, Royal Society of Medicine

Millin Lecture 2020

Colin Peirce for his lecture 'Evidence based research of surgical technology and technique leading to change in practice and healthcare delivery'.

Dr Richard Steevens Fellowship for 2020

Awarded to Eamon Francis and Helen Mohan.

A bursary was awarded to Ailin Rogers.

The Professor W.A.L. MacGowan Medal 2019

Shane Considine.

The Brian Lane Medal 2019

Amy Copperthwaite.

The Sir Walter Mercier Medal 2019

Awarded to John Tristan Cassidy for his outstanding performance in the November 2019 diet of the Intercollegiate Specialty Examination in Trauma and Orthopaedic Surgery.

Appendix 2

Academic Staff Promotions

Senior Lecturer

Dr Marian Brennan, School of Pharmacy and Biomolecular Sciences

Dr Claire McCoy, School of Pharmacy and Biomolecular Sciences

Dr Roger Preston, School of Pharmacy and Biomolecular Sciences

Associate Professor

Dr Eoghan O'Neill, Clinical Microbiology

Dr Tom O'Connor, School of Nursing and Midwifery

Professor

Professor Andreas Heise, Department of Chemistry,

Professor Annette Byrne, Department of Physiology and Medical Physics and GEM

Professor Gianpiero Cavalleri, School of Pharmacy and Biomolecular Sciences

Professor Sally-Ann Cryan, School of Pharmacy and Biomolecular Sciences

Professor Richard Costello, Department of Medicine

Appendix 3

Honorary appointments and promotions

Honorary Clinical Lecturer

Dr Daniel Kane, Registrar, Rotunda Hospital

Dr Diane Gillan, Senior Clinical Neuropsychologist, Beaumont Hospital

Dr Imran Sulaiman, Consultant Respiratory Physician Locum, Beaumont Hospital

Ms Ita Fitzgerald, Senior Pharmacist, Saint John of Gods Hospital

Dr Jamal Dakhiel, Registrar, Midland Regional Hospital Mullingar

Dr Karim Botros, Registrar, Midland Regional Hospital Mullingar

Dr Mohamad Ras, Registrar, Midland Regional Hospital Mullingar

Dr Safwat Ibrahim, Registrar, Beaumont Hospital

Dr Sarmad Alshamery, Registrar, Beaumont Hospital

Dr Susan Byrne, Consultant Paediatric Neurologist, Evelina London Children's Hospital

Honorary Clinical Senior Lecturer

Mr Achille Mastrosimone, Consultant General Surgeon, Connolly Hospital

Dr Concepta Merry, Consultant in Infectious Disease, St. James' Hospital

Dr Ehtesham Khan, Consultant Anaesthesiologist, Our Lady of Lourdes Hospital Navan

Ms Elrasheid Kheirleiseid, Consultant Vascular Surgeon, Beaumont Hospital

Mr Fiachra Martin, Consultant Plastic Reconstructive and Aesthetic Surgeon, Beaumont Hospital

Dr Gerard Markey, Consultant in Emergency Medicine, University Hospital Waterford

Dr Hany El Naggar, Consultant Neurologist and Epileptologist, Beaumont Hospital

Dr Helen Barry, Consultant in Liaison Psychiatry, Beaumont Hospital

Dr Helen O'Brien, Consultant Orthogeriatrician, Our Lady of Lourdes Drogheda

Dr Jane Cryan, Consultant Neuropathologist, Beaumont Hospital

Dr Joseph Keaveney, Consultant Anaesthesiologist, Beaumont Hospital

Dr Karen Boland, Consultant Gastroenterologist, Beaumont Hospital

Mr Kieron Sweeney, Consultant Neurosurgeon, Beaumont Hospital

Dr Malik Anwar, Consultant Gastroenterologist and Physician, Our Lady's Hospital Navan

Dr Mark Kennedy, Consultant Cardiologist, Beaumont Hospital

Mr Mark Quinlan, Consultant Urologist, Beaumont Hospital

Dr Michael O'Reilly, Consultant Endocrinologist, Beaumont Hospital

Dr Michael Quirke, Consultant in Emergency Medicine, Beaumont Hospital

Dr Neil Burke, Orthopaedic Surgeon, Beaumont Hospital

Dr Niamh O'Regan, Consultant in Geriatric and General Internal Medicine, University Hospital Waterford

Dr Nick Eichler, Specialist in Public Health Medicine, Department of Public Health East

Dr Orlaith Kelly, Consultant Gastroenterologist and Physician, Connolly Hospital

Dr Osama El Sadig, Consultant General Surgeon, Galway Clinic

Dr Patrick Fitzpatrick, Consultant in Paediatric Emergency Medicine, Children's University Hospital

Dr Peter McCullough, Consultant Colorectal and General Surgeon, University Hospital Waterford

Dr Peter Widdess Walsh, Consultant Neurologist, Beaumont Hospital

Prof. Robert Kelly, Consultant in Cardiology and Lifestyle Medicine, Beaumont Hospital

Dr Ruth O'Leary, Consultant in Anaesthesia and Intensive Care, Beaumont Hospital

Dr Sinead McCarthy, Consultant Anaesthesiologist, Beaumont Hospital

Honorary Associate Professor

Prof. Ahmed Ansari, Consultant in Medical Education, Bahrain Defence Force Hospital

Honorary Clinical Associate Professor

Prof. Anthony Ryan, Consultant Intervention Radiologist, University Hospital Waterford

Prof. Atif Awan, Consultant Paediatric Nephrologist, Children's University Hospital

Prof. Brian Kneafsey, Consultant Plastic Surgeon, Beaumont Hospital

Prof. Jacinta Morgan, Consultant in Rehabilitation Medicine, NRH and Beaumont Hospital

Prof. Rory Dwyer, Consultant in Anaesthesiology and Intensive Care, Beaumont Hospital

Prof. Martin Donnelly, Consultant ENT Surgeon, University Hospital Waterford

Prof. Susan O'Connell, Consultant Paediatric Endocrinologist, Our Lady's Children's Hospital Crumlin

Prof. Sam Thomas, Consultant Obstetrician and Gynaecologist, Midland Regional Hospital

Prof. John Ryan, Consultant Hepatologist, Beaumont Hospital

Prof. Patrick Morris, Consultant Medical Oncologist, Beaumont Hospital

Prof. Mohsen Javadpour, Consultant Neurosurgeon, Beaumont Hospital

Prof. Regina McQuillan, Palliative Medicine Consultant, Beaumont Hospital

Prof. Rory Dwyer, Consultant in Anaesthetics and Intensive Care Medicine, Beaumont Hospital

Prof. Mayilone Arumugasamy, Consultant General and Upper GI Surgeon, Beaumont Hospital

Prof. Mary Keogan, Consultant Immunologist and Clinical Lead, Beaumont Hospital

Honorary Professor

Prof. Anil Kokoram, Professor, TCD

Prof. John Jenkins, Director THEP, RCSI

Honorary Clinical Professor

Prof. Dubhfeasla Slattery, Consultant Respiratory Paediatric Physician, Children's University Hospital

Prof. Michael O'Connell, Master, Consultant Obstetrician and Gynecologist, Coombe Women and Infants University Hospital

Prof. Muhammad Azam, Consultant Paediatrician, Wexford General Hospital

Prof. John McDermott, Consultant Endocrinologist, Connolly Hospital

Prof. Jim O'Neill, Consultant Cardiologist, Connolly Hospital

Appendix 4

Honorary doctorates and fellowships

Honorary doctorates

Professor David A. Ansell, MD, MPH, Michael E Kelly Presidential Professor of Internal Medicine, Senior Vice President/Associate Provost for Community Health Equity at Rush University Medical Center in Chicago

Professor Adrienne M Flanagan, OBE and RCSI Alumnus, Professor of Musculoskeletal Pathology, Cancer Institute, University College London

Honorary fellowships

The Hon. Susan Denham, Chief Justice of Ireland, 2011-2017

Dato' Dr Godfrey Geh Sim Wah, Senior Consultant General and Plastic Surgeon, Pantai Hospital Penang

Mr Frank McDonald, former Irish Times Environment Editor, Journalist and Author

Dr Valerie Rusch, M.D., Vice Chair of Clinical Research, Department of Surgery, Memorial Sloan-Kettering Cancer Center, New York and Miner Family Chair in Intrathoracic Cancers. President of the American College of Surgeons.

Mr David Agler, Artist Director, Wexford Festival Opera

Professor Jo Shapiro, MD, FACS, Department of Surgery, Brigham and Women's Hospital, Boston, Associate Professor of Otolaryngology, Harvard Medical School.

Professor Michael Lavelle-Jones, Immediate Past President of the Royal College of Surgeons Edinburgh, Consultant General Surgeon, Ninewells Hospital, Dundee

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