



2020-2021 ANNUAL REPORT



RCSI



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This report covers RCSI's operations during the period 1 July 2020 – 30 June 2021.
ON THE COVER Supporting surgical training: core surgical trainee Amanda O'Halloran takes part in Surgical Bootcamp 2021 at the RCSI SIM centre.

A year in pictures

TRANSFORMING THE LEARNING EXPERIENCE



RCSI created a unique satellite campus at Croke Park to ensure students could continue their education in a safe environment during the pandemic. At Orientation Day in September, medical students Wijdan Alrashaidi and Malak Almusalhi.

Carefully managed in-person clinical and campus access brought students one year closer to graduation as healthcare professionals. A clinical teaching session takes place at the RCSI Smurfit Building, Beaumont Hospital, in January 2021.





Students enjoy hillwalking in the Dublin mountains as part of the winter holiday programme, which was developed in partnership with the student unions to support international students staying in Dublin over the festive break.

Dr Connie Dale celebrates receiving her final year results with her sons Odhran, Otto and her husband Chris. 300 future doctors received their results in May 2021, marking the second time the historic RCSI Results Day event was held via live stream.



Inspired by the RCSI White Coat Ceremony, a new painting by artist Mary A. Kelly recognises and celebrates the symbolism of the white coat. It was unveiled during a virtual ceremony in October to inspire students at the beginning of their academic journey, marking their new role as student healthcare professionals.

DRIVING IMPACTFUL RESEARCH



The School of Pharmacy and Biomolecular Sciences played a key role in supporting international COVID-19 research efforts, winning several awards and publishing significant high-impact papers. Ololade Lawal Oluwadele is a PhD researcher at the school.

RCSI was awarded funding under the SFI-led COVID-19 Rapid Response Research and Innovation Programme. At the announcement in September were Prof. Mark Ferguson, Director General, SFI and Chief Scientific Adviser to the Government; Minister for Further and Higher Education, Research, Innovation and Science, Simon Harris, TD; Prof. Zena Moore, Professor of Nursing and Midwifery; and Prof. Donal O'Shea, Professor of Chemistry, RCSI.



SUPPORTING HEALTHCARE AND SOCIETY

Ireland's Chief Medical Officer, Dr Tony Holohan received an Honorary Fellowship of RCSI in June, in recognition of his outstanding leadership during the COVID-19 pandemic.



Medical students and GP Club members Anna Whitaker, Conor Kearns, Kathryn McGarry and Diane Wiehe were among those who coordinated RCSI student volunteering for the GP Vaccination Programme at The Helix Vaccination Centre, Dublin.



SUPPORTING SURGICAL TRAINING AND PRACTICE

At Surgical Bootcamp 2021 which commenced in June, 80 core surgical trainees took part in an intensive 40-hour course, developed to immerse them in the technical and non-technical skills needed as a surgeon.





President's review

Professor P. Ronan O'Connell, President

The past 18 months have been without precedent in living memory. COVID-19 has disrupted every facet of daily life and has challenged the very fabric of our society. That we in Ireland have prevailed is a testament to our maturity and resilience.

Notwithstanding major bed capacity issues and a severe shortage of ICU beds, the health service did not implode, and we were spared the worst ravages of the pandemic. Great credit is due to the healthcare workers across the nation who put themselves in harm's way and demonstrated extraordinary fortitude in the initial phases of the pandemic.

On behalf of RCSI, I wish to express our gratitude to those who put their own lives at risk and to remember those who sadly died. Their sacrifice will not be forgotten.

RCSI is particularly mindful of the difficulties faced by our alumni and colleagues around the world especially in locations where healthcare infrastructure has been overwhelmed. While in Ireland almost 90% of the adult population is now vaccinated, this is not the case in middle-and low-income countries. As an institution with a global

healthcare remit, RCSI will advocate for equitable distribution of vaccines. As Dr Mike Ryan, Executive Director, WHO Health Emergencies Programme, said recently in the Sir Peter Freyer Memorial Lecture "no-one is safe until everyone is safe".

We hope the worst of the pandemic is behind us in Ireland, but its legacy will be in terms of the increased numbers of patients waiting to be seen, presenting with more advanced disease. This will be a formidable challenge for our surgical community in the years ahead. RCSI will advocate with Government and the HSE for increased access to surgical care and will argue that the long-demanded separation of urgent and scheduled care pathways must be delivered. Short-term solutions such as NTPF funding of care in the private sector have diverted resources that might otherwise have increased capacity in the public sector. It is to be hoped that the clinical advice so valued during the pandemic will not again fall on deaf ears post-pandemic.

RCSI will advocate with Government and the HSE to increase access to surgical care.

Surgical Affairs

COVID-19 was disruptive, but disruption also engenders innovation – ‘needs must’ and ‘can-do’ attitudes helped RCSI as an institution to continue to deliver post-graduate surgical education and training and continuous medical education programmes. Great credit is due to the staff of Surgical Affairs and our surgical trainers for maintaining a high standard of training throughout, albeit with reduced volumes of elective cases. Paradoxically, the reduced case volume in many cases facilitated better training opportunities.

The 2021 Surgical Bootcamp went ahead using a blended teaching model and, with HSE approval, the number of appointments to Core Surgical Training was increased from 60 to 80, while 37 trainees were appointed to specialty training posts across all specialties. I am pleased to note that 46% of the successful applicants for Core Surgical Training and 27% of those for Higher Specialist Training are female; promoting gender diversity continues to be a priority for the College.

The MRCS and Intercollegiate FRCS examinations were delivered in collaboration with our sister surgical royal colleges. Unfortunately, due to travel restrictions, it has not been possible to hold the international Fellowship and Membership clinical examinations. The College sees this as a priority for the year ahead.

One of the positives to emerge is the greatly improved communication within the College and the surgical community given the restrictions on meeting in person. Regular newsletters and weekly webinars provided the information needed to cope in the early phases of the pandemic. The platform developed continues to be used as a regular conduit between the College and Fellows and Members.

Surgical research

This year the Council’s Research Committee, chaired by Prof. Michael Kerin, established the all-Ireland Irish Forum of Surgical Research with the remit of establishing a surgical research network open to all interested in surgical research collaboration. Council has approved the appointment of a Director of the National Surgical Research Network (currently

advertised). Concurrently, surgical trainees have set up a collaborative network which offers the potential for Irish surgical units to involve patients in research projects. Both initiatives will help to promote and support research projects with a coordinated approach.

Women in surgery

In February, we announced Ms Helen Mohan as the recipient of the second PROGRESS Women in Surgery Fellowship. Ms Mohan has travelled to Australia to undertake her Fellowship in colorectal surgery at Peter MacCallum Cancer Centre in Melbourne.

Through this Fellowship, Ms Mohan is playing an important role in promoting a better understanding of the challenges faced by women in surgery and encouraging women medical graduates to strive for a career in surgery. We wish her every success.

Northern Ireland

This year, Council established a Northern Ireland Liaison Committee under the chairmanship of Professor Thomas Lynch. Although by Charter RCSI is an all-island institution, for too long the interests of Fellows and Members in Northern Ireland have not received priority. The Committee has been welcomed by colleagues in Northern Ireland where COVID-19 has exposed even greater infrastructural deficits and training difficulties than those in the South. Working with our sister surgical royal colleges, it is hoped that an intercollegiate presence can be established in Northern Ireland in support of the surgical community and for the betterment of patient care.

Charter Day 2021

Due to the pandemic, Charter Day 2021 became a virtual Charter Week in February, merging with the postponed 2020 Millin Meeting. The theme was ‘Charter Goes Global’, with meetings addressing issues such as training, research, technical innovation, service delivery, quality assurance, sepsis, global surgery, and ethnic diversity.

The virtual format enabled a convergence of leaders in healthcare from around the world for a programme addressing some of the major issues and advances in surgery. An outstanding success, Charter Week’s events were attended by 2,000 delegates and featured 120 international speakers from five continents.

Dr Vivian McAlister OC, Professor in the Department of Surgery at University Hospital, Canada, delivered the annual Johnson & Johnson Lecture and Professor James Lau, Chair of the Department of Surgery at the Chinese University of Hong Kong, delivered the 96th Abraham Colles Lecture on ‘The Demise of Emergency Ulcer

Surgery'. Professor CM Lo, Chief Executive HKU-Shenzhen Hospital, Shenzhen, China was conferred with an Honorary Fellowship of RCSI.

The annual Millin Meeting saw presentations on innovation in simulation from the newly appointed RCSI Chair of Simulation Education and Research, Professor Walter Eppich, and on tissue engineering from Professor Fergal O'Brien, Director of Research at RCSI. His Excellency Dr Lotay Tshering, Prime Minister of the Royal Government of Bhutan, spoke on challenges in the delivery of surgical services and surgical education in Bhutan.

Mr Fintan O'Toole, *The Irish Times* columnist, delivered the 28th Carmichael Lecture on the topic of 'Public Health and Public Wealth', and Mr Colin Peirce, Consultant Colorectal Surgeon, University Hospital Limerick, delivered this year's Millin Lecture, titled 'Electrodes to Robots – Evidence-based Change in Surgical Practice'.

The annual conference of the National Clinical Programme in Surgery (NCPS) focused on models for scheduled care delivery, and the week concluded with the Irish Surgical Training Group (ISTG) Meeting. Professor Peter Gillen, Associate Professor of Surgery at RCSI, delivered the Bosco O'Mahony Lecture, 'The Changing Face of Surgical Training'.

Given the success of Charter Week 2021, the Council has agreed that the programme for 2022 should follow a hybrid format and allow for both in-person and online interactions.

Global Surgery

The RCSI Institute of Global Surgery (IGS), headed by Professor Mark Shrimme, the first O'Brien Chair of Global Surgery, was launched at a webinar in March 2021. A keynote address was delivered by Dr Gary Parker, CMO, Africa Mercy, Mercy Ships. The launch webinar marked the first of what will be an annual Dublin Meeting in Global Surgery.

The IGS will lead global efforts to ensure equity for patients in need of surgical care and build on RCSI's extensive experience in surgical training, education, and research partnerships in Africa. RCSI will continue to work with local partners to develop sustainable surgical care systems in low- and middle-income countries.

Thank you

I wish to acknowledge the great honour of serving as President since my election in June 2020. I have been ably supported in the role by Vice President Professor Laura Viani and the elected members of RCSI Council. I am grateful to the Fellows and Members of the College for their engagement and support.

I also want to express my gratitude to the Chief Executive, Professor Cathal Kelly; the Dean of the Faculty of Medicine and Health Sciences, Professor Hannah McGee, and the Senior Management Team for their outstanding leadership as we faced such unprecedented challenges over the last year. I wish particularly to congratulate them on maintaining a complex programme of medical and health sciences education and research across campuses in Ireland, Middle East and Malaysia during the pandemic. In doing so they have maintained RCSI University's ranking in the top 250 universities worldwide in the Times Higher Education (THE) World University Rankings – joint second place among Irish universities and Ireland's highest position in the THE University Impact Rankings 2021, coming joint second in the world for 'Good Health and Wellbeing' from a total of 871 institutions.

After such a difficult year, the strength of our surgical community and the staff of the College gives me great confidence that RCSI can face the future with optimism and energy and deliver our objectives in education, healthcare and research for the good of global human health.

I look forward to the welcome resumption of more in-person activities in the not-too-distant future.

RCSI can face into the future with optimism and energy and deliver its objectives in education, healthcare and research for the good of global human health.



Council members



Professor P. Ronan O'Connell
President, RCSI; Emeritus Professor of Surgery, UCD



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



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



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



Professor Ronan Cahill
Professor of Surgery, UCD; Consultant Surgeon (General/Colorectal) Mater Misericordiae University Hospital



Professor Camilla Carroll
Consultant Surgeon (Otolaryngology/Head and Neck) RVEEH Dublin; Clinical Associate Professor, TCD School of Medicine



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
Associate Clinical Professor, Consultant Surgeon (Cardiothoracic/Transplant), St Vincent's University Hospital and Mater Misericordiae University Hospital



The Hon. Mr Justice Peter Kelly
Retired 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



Professor Thomas H. Lynch

Consultant Surgeon (Urology), St James's 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/Orthopaedic), Children's Health Ireland, Crumlin, Tallaght University Hospital and Blackrock Clinic



Ms Margaret O'Donnell

Consultant Surgeon (Plastic/Reconstructive/Aesthetic), Blackrock Clinic and St Vincent's Private Hospital; Group Clinical Director Blackrock Healthcare Group



Mr David Quinlan

Consultant Surgeon (Urology), 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



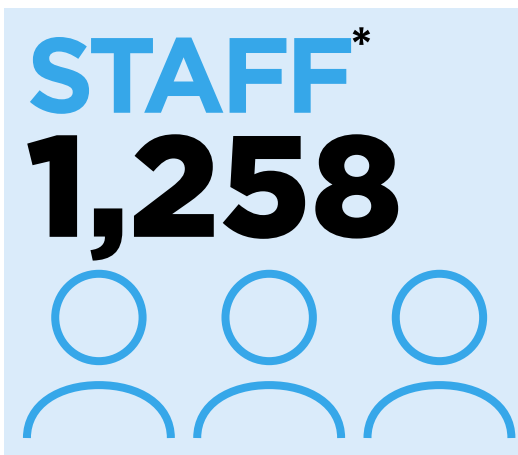
Mr Keith Synnott

Consultant Surgeon (Trauma/Orthopaedic), Mater Misericordiae University Hospital; National Clinical Lead for Trauma Services

A year in numbers



9,600
FELLOWS
AND
MEMBERS
ACROSS 83
COUNTRIES



26,000
alumni in **94** countries

508 **SURGICAL**
AND EMERGENCY
MEDICINE TRAINEES



RESEARCH

€31.5M grant income 2020

1.9 field weighted citation impact
(global average = 1)**

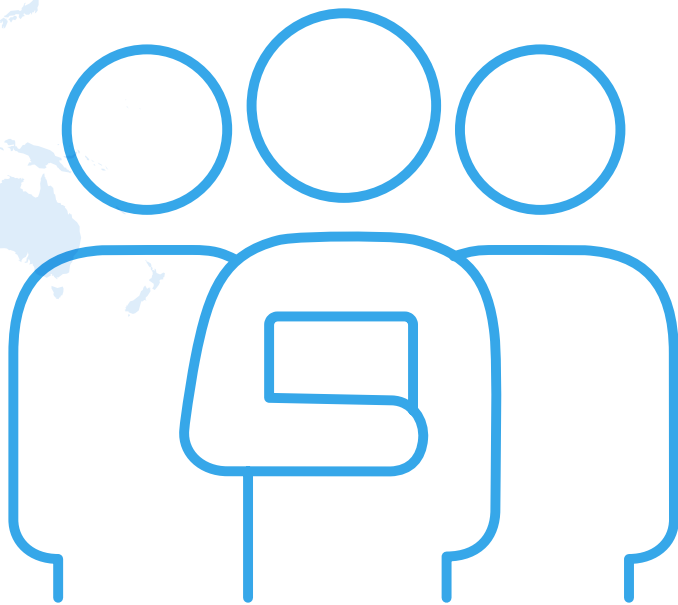
54% international collaboration
(global average 20%)**



INNOVATION

100% increase in agreements to commercialise research intellectual property in 2020

€4.5M industry funding for research in 2020



STUDENTS FROM MORE THAN
69 COUNTRIES
4 OVERSEAS CAMPUSES
MALAYSIA (2), BAHRAIN AND DUBAI

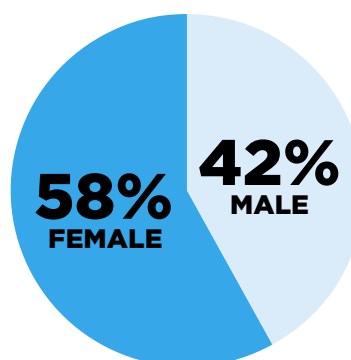


STUDENTS*

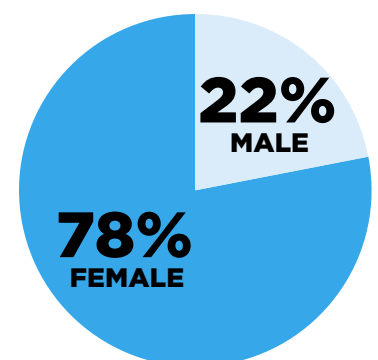
4,587 registered students

2,483 undergraduate students (medicine, physiotherapy and pharmacy)

1,088 postgraduate students (masters, MD, PhD)



UNDERGRADUATES



POSTGRADUATES

Chief Executive's review



Professor Cathal Kelly, Chief Executive/Registrar

This report on activity during 2020/2021 gives me an opportunity to reflect on how RCSI, its staff and students have adapted to the most challenging of circumstances.

In March 2021, we marked one year since the initial closure of the campus with a series of reflections for staff and students and, looking back on this, I am proud of how much we were able to achieve - staying true to our core mission of education, research and service despite the COVID-19 pandemic.

Responding to COVID-19

Innovative use of online education and simulation alongside carefully managed in-person clinical and campus access, enabled the class of 2021 to graduate and join the frontline as healthcare professionals, including 321 doctors from 33 countries. We made the facilities of RCSI SIM, our simulation centre, available to assist the training of new medical interns. To support the national effort, many of our students volunteered in Irish hospitals, and as contact tracers. Our pharmacy students remained on frontline clinical placements throughout the COVID-19 pandemic as key workers.

RCSI academic staff provided expert commentary to numerous media outlets and played a key role in disseminating evidence-based information to the public. We created free online resources to help manage anxiety around the pandemic, and the RCSI

MyHealth lecture series moved online to bring trusted healthcare information to the public.

Our researchers applied their knowledge to conduct research which had a real and immediate impact on the treatment of patients with COVID-19. Among this research was the discovery of a blood test to predict which patients are most likely to develop severe infection, and a digital clinical support tool to enable hospitals to optimise and scale acute respiratory care. Our nursing teams developed a treatment to prevent facial pressure ulcers due to mask-wearing among healthcare staff.

The formation of RCSI Adapt groups was key to the delivery of education and research programmes. We redesigned our campus to ensure the prioritisation of in-person education with the highest levels of safety, and we protected the health of our students, staff and their patients with our on-site testing facility and laboratory.

Education

Throughout the University, our greatest priority was to keep our students progressing closer to graduation. All programmes and years proceeded as

planned and graduations were completed, with impressive virtual conferring ceremonies for students and their families. We were delighted to see our students in Medicine, Pharmacy, Nursing, Physician Associate Studies and Physiotherapy in Dublin, Bahrain and Malaysia successfully complete their programmes. My congratulations to each and every one of them.

We ensured that all schools and professional departments had the digital skills to ensure learning was delivered and all students had at least three days' access to campus each week.

Our School of Medicine made use of new technologies to develop online ward rounds and Grand Rounds with international speakers, and oversaw the development of a hybrid exam model which will have value in the future, allowing the participation of examiners in remote locations.

Despite the challenges resulting from the pandemic, work progressed on developing our medical curriculum to ensure it equips our students to

respond to the future of healthcare in an increasingly global, digital and climate-focused world. Our aim is to graduate truly international healthcare professionals. The new medicine curriculum, which will be introduced from September 2022, will focus, as before, on knowledge and excellent clinical skills development while introducing a unique and exciting approach to professional identity development.

Research and innovation

RCSI has had an outstanding year in terms of research publications, industry partnerships and external grant funding.

Our researchers published 1,435 PubMed indexed articles in 2020 and we secured €31.5 million in external funding for research during the calendar year 2020, up from €20.9 million in 2019.

We invested in new IT infrastructure for research imaging and data analytics to enable us to compete effectively.

Our new Research Strategy Committee is working to identify opportunities to grow the University's research and innovation activities, and the Biobanking Committee has invested in developing our institutional biobanking resources. We have consolidated our commitment to Public and Patient Involvement (PPI) in research by joining the HRB-funded PPI Ignite Network.

Among the topics covered in publications during this reporting period were Professor Gerry McElvaney's research into a blood test to predict which COVID-19 patients will develop severe infection, discovery of a potential therapeutic to treat breast cancer led by

We redesigned our campus to ensure the prioritisation of in-person education with the highest levels of safety



RCSI staff in the student swab-testing centre in 26 York Street that was established to help protect the RCSI community and their patients from the spread of COVID-19.

I am particularly grateful for the positive attitude and strong collegiate spirit demonstrated by everyone in the RCSI community.

Dr Triona Ní Chonghaile and Professor David Cotter's blood test to predict those likely to develop psychotic disorders.

Dr Claire McCoy and her team found a new way to halt excessive inflammation by regulating a type of white blood cell key to the immune system, and Professor Fergal O'Brien has developed a new biomaterial which helps bones to heal.

Our Innovation team helped increase the value of research commercialisation funding to €2.7 million, and our Industry Support team saw funding from industry grow to €4.5 million. In the innovation sphere, University spin-out companies Inthelia Therapeutics and Oncolize made great strides, while the University has licensed tissue engineering technologies to Locate Bio, an orthobiologics regenerative medicine company.

Our Annual Research Day gave me an opportunity to recognise the outstanding contribution of the University's researchers to research commercialisation and industry engagement activity.

Society

The University remains committed to tackling issues affecting human health and well-being and global health inequity, and is a signatory to the United Nations Sustainable Development Goals Accord.

In October 2020, we launched the world's first academic centre for positive psychology and lifestyle medicine. The new Centre for Positive Psychology and Health applies the scientific principles of positive psychology and lifestyle medicine to enhance the health and happiness of people in Ireland and around the world. The Centre's free online course, 'The Science of Health and Happiness', has now seen almost 30,000 enrolments and received overwhelmingly positive feedback.

The launch of the Institute of Global Surgery in March 2021 is a manifestation of the University's commitment to informing and improving global healthcare delivery through research and education.

In February 2021, we were proud to confer the first Cameron Award for Population Health, named after Sir Charles Cameron, Professor of Hygiene and Political Medicine at RCSI, and a pioneer in his field, on Dr Mike Ryan, Executive Director of the World Health Organization Health Emergencies Programme, an Irishman who has played such a visible role in the global response to the pandemic and in whom we take immense national pride.

Global reputation

Recognising our commitment to achieving the UNSDGs, RCSI achieved Ireland's highest position in the Times Higher Education (THE) University Impact Rankings 2021, coming joint second in the world for 'Good Health and Well-being' from a total of 871 institutions. The University Impact Rankings assess universities around the world for their social and economic impact based on the 17 Sustainable Development Goals.

In the THE World University Rankings 2021 announced last September, RCSI ranked among the top 250 universities, and second out of nine ranked institutions in the Republic of Ireland. Retaining our top 250 position in an increasingly competitive global education environment is testament to the commitment and innovation of our students, faculty, researchers and professional staff. This result is of particular significance to the RCSI community this year, as our staff have continued to conduct world-class research and deliver an engaging academic experience, despite the immense challenges presented to us by the pandemic.

Thank you

As CEO of RCSI, I could not be more proud of the commitment of our staff and students, and acknowledge the contribution of the patients, clinicians and staff of our teaching hospitals during a difficult year.

I am particularly grateful for the positive attitude and strong collegiate spirit demonstrated by everyone in the RCSI community. We have learned together, often in unexpected ways, and I think that some of these lessons will prove to be valuable in the future, as we navigate our way out of, and hopefully beyond, the pandemic.

My thanks also to Professor P. Ronan O'Connell, RCSI President, and the RCSI Council for their ongoing support and guidance, and to my colleagues on the Senior Management Team for their leadership and collegial support.

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

“ Training through immersive simulation allows you to practice surgical competencies in a safe environment that will prepare you to embark on a career in surgery anywhere in the world. ”

Dr Phrmpreet Mann,
Masters in Surgical Science and Practice student

01

Surgey





55

**WEBINARS FOR
SURGICAL AND EMERGENCY
MEDICINE TEAMS**

119

**CORE
SURGICAL
TRAINEES**



250

**HIGHER
SURGICAL
TRAINEES**



78

**CORE
SPECIALTY
EMERGENCY
MEDICINE TRAINEES**



61

**ADVANCED
SPECIALTY
EMERGENCY
MEDICINE TRAINEES**



623



**CONTINUOUS PROFESSIONAL
DEVELOPMENT SUPPORT SCHEME PARTICIPANTS**

Surgery



Kieran Ryan
Managing Director, Surgical Affairs

Over the past twelve months, Surgical Affairs had already pivoted to a new way of working and, while unable to be present together as a team, or have regular face-to-face meetings with trainers, trainees and students, our primary focus was to figure out how to continue to deliver training, examinations and assessments, and provide ongoing supports.

Surgical training

The biggest challenge was to balance keeping pressure off those on the front line who had to continue providing service, and at the same time keep up progression for our trainees, who were understandably concerned about acquiring the skills they need.

In the UK, we saw many trainees failing to get access to training opportunities resulting in a delay to completing their training and progressing to appointment as consultants. We worked very hard with trainers in different specialties to find ways of prioritising access to training cases and training lists here in Ireland. We did see a dip in training activity due to reduced surgical activity because of COVID-19, but that recovered quite well after the first and second waves dissipated and hospitals became more confident about providing non-COVID-19 care.

Maintaining training for specialties

Some specialties were harder hit than others. Where emergency surgical services were continuing we maintained case numbers, but case numbers in highly elective specialties such as ENT and urology dropped off. When elective work stopped, we tried to find a balance between accepting reality and trying to ensure trainees could keep progressing in their training. We prioritised both ends of the training spectrum, those

at the start and those closer to the finish, on the basis that the people in the middle had more time to catch up. We moved didactic teaching and tutorials online, concentrated on skills work in the simulation laboratories, and adapted courses to accommodate social distancing with increased frequency and reduced class sizes.

For the most part, we have not had to extend training for trainees due to COVID-19. We focused on the index cases that trainees need to do, so while overall volume in logbooks is down, important milestone cases are being maintained.

Surgical Bootcamp

Our 2021 Surgical Bootcamp covering basic surgical techniques and didactic teaching took place in June, using a blended model. Restricted numbers in labs and universal precautions meant that it ran over three weeks rather than the traditional two. This year, with HSE approval, we increased the number of appointments to Core Surgical Training from 60 to 80, something we had been hoping to do for some time.

Women in surgery

Ms Helen Mohan was the second recipient of the important PROGRESS Women in Surgery Fellowship, and we are very grateful to Johnson & Johnson for their support. She has taken up a position as Colorectal Fellow at the Peter MacCallum Cancer Centre in Melbourne, Australia, an integrated cancer research, treatment and education centre.

Delivery of examinations

The delivery of examinations, particularly specialty examinations, was challenging. Travel restrictions, quarantine and isolation requirements meant we had to come up with an alternative to the usual intercollegiate structure. Working with the JCIE team in Edinburgh, we ran specialty fellowship examinations remotely here in Ireland, with examiners in Scotland examining our trainees, and Irish examiners invigilating. Thanks to the willingness of examiners to supervise, and of the trainees to be flexible, the exams ran smoothly, and we were able to maintain quality and standards.

We prioritised both ends of the training spectrum, those at the start and those closer to the finish.

Being able to run examinations domestically ensured that Irish-based trainees were able to stay on track with their training schedule.

Although we were able to conduct Part 1 examinations online, internationally-based examinations were effectively halted. For these Part 2 exams to be valid surgical examinations, physical presence is required, so the examiner can assess basic skills, judgment and interaction with the patient. The cancellation of these exams has been a concern for our early-career surgeons and it is a major priority for the year ahead to recover internationally. We are sharing waiting lists with the RCPSG, RCSED and RCSENG, will use each other's international examination centres, and have prepared a set of rules and regulations for invigilation to ensure standards are maintained.

Core surgical training

We had the highest number of applications ever for core surgical training places, with over 250 applicants for 80 training places. It was a fully online selection process and highly competitive. We had 45 interview panels, and ranked every applicant across the various competencies. 46.3% of the successful applicants are female. The selection process for higher specialty training and emergency medicine training was also online. We appointed 37 trainees, of whom 27% are female, to higher specialist training. We appointed 26 new trainees for core training in emergency medicine, and 22 for specialty training.

Surgical practice

We were anxious to keep supporting all surgeons in practice, from trainees to consultants, in a rapidly changing information environment. Together with our colleagues in the RCSI Library, we created a COVID-19 hub to collate good information and published articles. We also worked with our colleagues in the UK looking at prioritisation lists of cases and conditions, linking in with national clinical programmes in surgery, orthopaedics and emergency medicine to help with planning. This information proved to be a helpful resource for surgeons in practice to use as elective lists were cancelled with hospital beds occupied by COVID-19 patients. It enabled them to assess hospital resources and prioritise the sickest patients.

Enhanced communication

It was important to keep channels of communication open, given the constraints around in-person interactions over the past year. The President issued regular weekly newsletters to Members and Fellows, and we scheduled weekly webinars to help with information flow. We held more than 55 of these; they were well attended and are now a vital part of our communications with Members and Fellows.

Professional competence

In terms of professional competence schemes, we maintained access to courses and educational resources, so surgeons could achieve their required



During the 2021 Surgical Bootcamp, core surgical trainees participated in simulated human factors training in the mock operating theatre

Thanks to the willingness of examiners to supervise, and of the trainees to be flexible, the exams ran smoothly, and we were able to maintain quality and standards.

CPD points and demonstrate compliance. With the support of the HSE, we also delivered 86 sessions to 625 trainees not in formal training schemes.

Maximising theatre resources

Through National Clinical Programmes we continued our work on a Theatre Efficiency and Effectiveness Programme with Southwest Hospital Group. Working actively with surgeons and surgical teams on the ground, our focus was on trying to understand how better to utilise the theatre resources and surgical services that are available. We looked at workflow, current practice and whether there were improvements to be made in terms of efficiency by transferring certain cases to different parts of the hospital group. The project is ongoing and is more important now than ever. It is a key enabler to help us plan in the wake of COVID-19, particularly because lists are showing an increase in complex cases as patients' disease has progressed. In partnership with the HSE and our hospital colleagues, we are seeking to develop a model that can be taken ownership of by the hospital. This is a quality improvement exercise, enabling the hospital group to devise its own metrics and dashboard, and plan accordingly, bringing about operational efficiencies. We hope there will be learning for other hospital groups.

Masters in surgery

RCSI is not just a training body but also a medicine and health sciences university and as such we have been working over the last year and a half to develop an academic Masters in Surgery (MCh) and MSc in Advanced Clinical Practice to meet the needs of those who want to take a higher degree and advance their academic qualifications. We also maintained the Masters in Surgical Science and Practice, a very specific one year, full-time programme which takes place in a fully-simulated environment and is designed to give



Ms Helen Mohan PROGRESS Women in Surgery Fellowship recipient

I am a General and Colorectal Surgeon, having completed my FRCSI in 2019 and CCST in 2020. I have a strong interest in research and have authored more than 50 publications. I hold a PhD in Pathophysiology of Inflammation and Cancer.

I was delighted to receive the second PROGRESS Women in Surgery Fellowship earlier this year. The award has enabled me to travel with my family to undertake a Fellowship in colorectal surgery at Peter MacCallum Cancer Centre in Melbourne, Australia. For this high-intensity fellowship I am focusing on advanced colorectal cancer, including training in robotic surgery, peritonectomy and pelvic exenteration. This Fellowship is hugely significant to me. It will allow me to advance my career in colorectal surgery and to focus on providing high quality patient care, promoting research and surgical education.

I am committed to advancing the goal of the RCSI Progress Fellowship in supporting women to become consultant surgeons by mentoring trainees and nurturing excellence. As past president of the Association of Surgeons in Training and a mentor on the ASiT mentoring programme, I am passionate about promoting diversity in surgical training.

I hope I can inspire future exceptional female trainees to apply for this opportunity to avail of career-defining international fellowship training.

Johnson & Johnson Medical Devices Companies funded the fellowship through an educational grant and is not involved in the selection of candidates for the fellowship.



Technical surgical skills training in the Wet Lab in 26 York Street

those at an early surgical career stage, many who have just completed their intern year, a deep dive into what is required to train as a surgeon. The programme offers skills training, scenario testing and training, and is excellent preparation prior to commencing a residency or surgical training programme. We will have an intake of 18 students for the 2021/2022 academic year.

We are working with educationalists to progress the modularisation process of our masters' programmes to allow students to have more options, and select modules to suit their interests. The MSc in Advanced Clinical Practice is aimed at doctors who might not want to train as surgeons but want to take a higher degree at RCSI and pursue a medical career. We hope to continue to broaden the options we offer to the wider medical community.

We maintained access to courses and educational resources, so surgeons could achieve their required CPD points and demonstrate compliance.

International activities

Although international training courses and examinations have been affected by the pandemic, we have moved online as much as possible, and connected with our international Members and Fellows through webinars. Two Fellows have come from Saudi Arabia to take up specialty training and we have recruited international trainees from Pakistan and Sudan into training programmes here in Ireland. They are in training in their own countries and will come here for additional training and experience before returning home, with their training here recognised.

Surgical research

We have continued to make good advances in the area of surgical research. Following on from the 2019 Council report, we have established the all-Ireland Irish Forum of Surgical Research which

We have established the Irish Forum of Surgical Research.

will take a more networked approach to research than heretofore. Surgical trainees have also set up a collaborative network, which offers real potential for Irish surgical units to contribute to research projects and get patients involved. We have put a proposal to Council for the College to fund a National Surgical Research Support Centre with a National Clinical Lead and Programme Manager.

New roles and appointments

Professor Oscar Traynor has been our Dean of Surgical Training and Education for over 20 years, and we acknowledge the huge contribution he has made to Irish surgical life and training in the College. He

is moving to a new role within the College, and will continue his involvement and leadership on academic and international projects. The College has recently appointed Professor Kevin Barry to the new position of Director of National Surgical Training Programmes and we look forward to working with him when he commences his role in September.

Surgical spirit

The team in Surgical Affairs has continued to work with huge commitment to their roles in the College - their dedication is humbling. The College is its people and everyone from trainers to trainees, our staff and those involved in research and education, has worked hard. I would like to sincerely thank everyone who contributed over the past year; every request we made was accommodated, which is a huge accolade for Irish surgical culture. We have received sound advice and guidance from the College and Council, and we are grateful to the HSE, with which we work closely, for the funding they provide to us.

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

>>> For RCSI Postgraduate Surgical Awards, see page 91





“Volunteering at a mass vaccine centre provided me with invaluable skills and experience to help prepare me for my future career as a doctor.”

Keesha Ravintharan,
Year 3 Medicine student



A transformative
learning experience

02

A
transformative
learning
experience

€7.8M

**HIGHER EDUCATION
AUTHORITY GRANT AWARDED
TO SCHOOL OF PHARMACY AND
BIOMOLECULAR SCIENCES**



10th

**ANNUAL
INTERNATIONAL
EDUCATION FORUM**

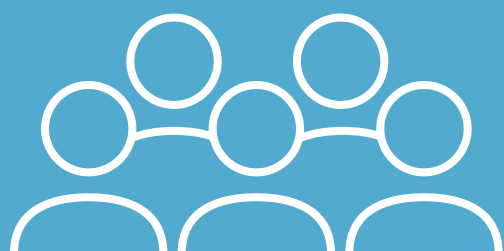
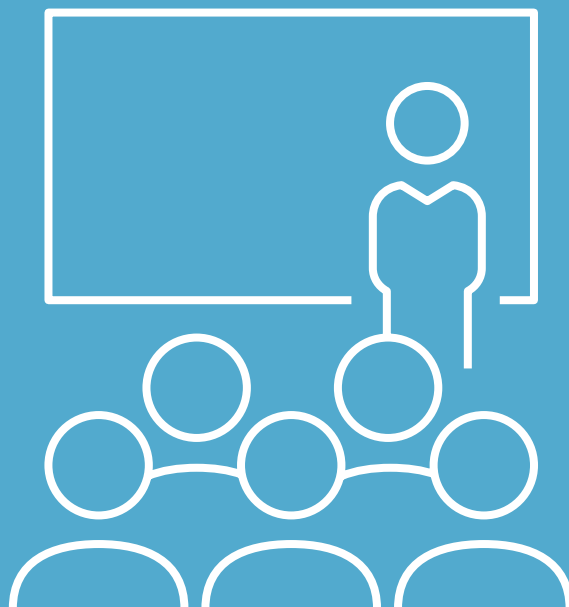
702

**HEALTH
PROFESSIONALS
REGISTERED FOR
CHILDHOOD OBESITY
TRAINING**

400



**TEACHING
SESSIONS
AND COURSES
SUPPORTED BY RCSI SIM**



300

**STUDENTS ATTENDED
PROFESSIONAL IDENTITY SERIES**

A transformative learning experience



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

The year was a mix of 'business as usual, whatever it takes' and delivering on our strategic goals.

In our first full academic year in a pandemic, our motto was 'one step closer to graduation' for all students in all programmes in all years. We made innovative use of online education and simulation alongside carefully managed direct clinical and university access, with our own in-house COVID-19 administration team and lab enabling regular PCR testing of all students on clinical sites. All programmes and years proceeded as planned, with graduations completed.

Supporting the national response to COVID-19

All schools and professional departments upskilled digitally, with faculty members sharing skills and techniques to help deliver learning to undergraduate and postgraduate students. Staff efforts have been exceptional. We made our educational expertise available to the Irish government to train contact tracers, and our simulation facilities to help upskill hospital staff working in challenging COVID-19 environments.

Setting up campus at Croke Park

We ensured all students had at least three days' access to campus each week by creating a new campus in the conference facilities at Croke Park stadium. We delivered the white coat and graduation ceremonies online, and engaged with the students' unions to provide as rich a student life as possible. A series of Student Engagement and Partnership (StEP) projects assessed how to improve every aspect of student life.

For many students, the opportunity to study abroad is an important part of building their CV and we are delighted to be continuing our participation in the Erasmus programme to 2027, with a new direct exchange with the Sorbonne in Paris. Many staff created online research opportunities for students to enhance their research skills over summer 2020.

Transforming healthcare education

The 10th Annual International Education Forum (IEF) in June 2021 gave us the opportunity to discuss the final points of the design phase of the Transforming Healthcare Education Project (THEP) with staff from Dublin, Bahrain and Malaysia. A dividend of holding the IEF online was that a greater number of international staff were able to participate.

A key ambition for 2018-2022 has been to transform our curricula. While dealing with the challenges of COVID-19, the faculty of the School of Medicine completed the international benchmarking and design phases of the THEP in 2021, with a detailed implementation phase now underway so the new programme can commence from September 2022.

Our motto was 'one step closer to graduation' for all students in all programmes in all years.

A key ambition for 2018-2022 has been to transform our curricula.

Our new curriculum takes an integrated approach to Personal and Professional Identity Formation (PPIF) with more small group and team work from the outset, to enable students to develop personal and interpersonal skills at the same time as they develop knowledge in their discipline, equipping them better for successful careers as part of a healthcare team.

New degree programmes

During the year, we were awarded competitive funding from the Higher Education Authority of €7.88m to establish three new degree programmes in Pharmacy, peer-reviewed as 'exceptional and transformative'.

New appointments

Focusing on renewal and innovation, we are delighted to have recruited staff for important new roles, signalling our growing reputation as a University of Medicine and Health Sciences. These appointments include Professor Siobhan Glavey,

Honorary Doctorates

RCSI Honorary Doctorates are awarded to those who have made an outstanding contribution to society. Awardees conferred during the year who made a commencement address at the virtual RCSI conferring ceremonies to inspire our new graduates were:

Professor Dame Jocelyn Bell Burnell, visiting academic and Professorial Fellow, Mansfield College, University of Oxford

Dr Mary D'Alton, Chair of the Department of Obstetrics and Gynaecology, Willard C. Rappleye Professor of Obstetrics and Gynaecology, Columbia University Medical Centre

Dr Richard Horton, Editor-in-Chief of *The Lancet*

Katie Elizabeth Piper, best-selling international author, TV presenter and charity campaigner

Professor Martin Seligman, Zellerbach Family Professor of Psychology and Director of the Positive Psychology Center, University of Pennsylvania

Chair of Pathology; Professor Fidelma Fitzpatrick, Chair of Clinical Microbiology; Professor Walter Eppich, Chair of Simulation; Professor Jan Illing, Director of the Health Professions Education Centre; Professor Robert McMurray, Academic Director at the Institute of Leadership; and Professor Mark Shrive, O'Brien Chair of Global Surgery.



Pictured at orientation day at the Croke Park satellite campus were (l-r) Wadhwaeh Alhajraf, medical student; Prof. Arnold Hill, Head of School of Medicine; Noor Faisal, medical student; Prof. Hannah McGee, Dean of the Faculty of Medicine and Health Sciences; and Shauna Conroy, Business Development Executive, Croke Park.



Professor Arnold Hill
Head of School of Medicine

School of Medicine

The COVID-19 pandemic challenged the School of Medicine to engage with new technology and innovate fresh ways of delivering its teaching.

New technology

Given ongoing uncertainty, we started the academic year a month early at the beginning of August, with four weeks of online teaching for all students. Using technology, we adapted to make distance learning work. Blackboard Collaborate was useful not just for traditional teaching sessions to large classes, but also for Grand Rounds, where it enabled us to have input from high-calibre international speakers.

The surge in January forced us to cancel clinical access for several months. We developed online ward rounds and, with patient consent, were able to record videos of history-taking and play those back to the class. Clinical teaching staff also wore Realwear smart glasses, to record clinical interactions and simultaneously transmit to students. Students engaged with this new style of active teaching and were able to play back sessions in their own time.



Students were fitted with FFP2 masks and trained in their safe use to protect themselves, other students and the staff and patients they interact with on clinical placements.

We progressively reintroduced clinical access, with reduced numbers and priority accorded to the graduating class. Towards the end of the year, we were able to have some in-person classroom learning with social distancing.

In order to prepare for graduation at the normal time, we changed the assessment schedule. We brought the first of two long-case clinical exams forward to February, when it was conducted online using an actor, enabling us to give detailed feedback to students. They derived confidence from having half their final exam completed in February, and benefited from that feedback as they prepared for the second exam in April. Here we used a hybrid technique, with the patient, the student and one examiner together in person, and one examiner online. This is something we will continue, being less onerous for examiners in different parts of Ireland.

RCSI organised an impressive virtual conferring ceremony for students and their families.

Transforming learning

We carried out significant work on the Transforming Healthcare Education Project (THEP 2). In planning for its implementation, we have developed six workstreams: teaching, assessment, clinical placements, student choice, learning communities and coaching. Each is led by a programme manager working with representation from senior management. We expect to commence the implementation phase of the new curriculum in September 2022.

Good communication has been key to alleviating stress in a difficult year. We held monthly meetings with the graduating class at which we were able to address any issues of concern, usually relating to assessment. At the end of an extraordinary year, we received significant positive feedback from our students — a testament to the hard work of the entire staff of RCSI.



Professor Tracy Robson
Head of School of Pharmacy
and Biomolecular Sciences

School of Pharmacy and Biomolecular Sciences

Despite COVID-19, this year was transformative for the School of Pharmacy and Biomolecular Sciences, highlighting significant growth and diversification across both education and research.

The School is responsible for the delivery of the Masters in Pharmacy (MPharm) programme, and plays a leading role across RCSI's medical, nursing and physician associate programmes. We engaged with students and rapidly adapted our education programmes in response to the global pandemic, through digitally-engaged learning and on-site delivery, ensuring our students were on campus two-three times per week. We also engaged in curriculum development of the MPharm programme and the medicine programme (THEP 2).

We led the first national online professional registration examination, with APPEL, allowing our first cohort of students on our five-year integrated MPharm Programme to graduate on time in November 2020 and enter the workforce as qualified pharmacists. The School also successfully delivered a physically-distanced 18-station OSCE Professional Registration Examination for National Pharmacy Internship Programme (NPIP) students, allowing more pharmacists to enter the workforce.

Throughout the COVID-19 pandemic, our pharmacy students remained on frontline clinical placements, volunteering their services in hospitals, and signing up to help in vaccination centres as vaccine reconstitutors and vaccinators.

New programmes

Our commitment to becoming one of the leading centres for pharmacy and health sciences education was realised through the award of a €7.8 million Higher Education Authority (HEA) grant to the School, under the Human Capital Initiative Pillar 3, 'Innovation and Agility'. This will allow expansion of our undergraduate and postgraduate programmes with a specific focus on emerging and future pharma technologies, addressing skills gaps in the pharma industry and enabling growth. This funding will help us deliver a new MSc

in Technologies and Analytics in Precision Medicine in September 2021 and a new BSc in Advanced Therapeutic Technologies in September 2022.

International outlook

We continue to collaborate with Soochow University (SU), China, through our international Clinical Pharmacy programme, and broaden our joint educational offerings. We have been impressed by the quality of the students undertaking the new joint 2+2 PhD programme. We were privileged to lead out on a masterclass workshop on 'Innovation, Impact and Internationalisation; The RCSI-Soochow Experience' at THE University Impact Forum with our Chinese colleagues.

Teaching and student engagement awards

Seven staff received Teaching Hero Awards – a student-led initiative delivered through the National Forum for the Enhancement of Teaching and Learning in Higher Education. Staff, postgraduate and undergraduate students also received RCSI Student Engagement and Partnership Awards.

The School's commitment to gender equality

In March 2021, the School achieved the internationally recognised Athena SWAN Bronze Award for gender equality in higher education.

Research-intensive environment

Despite COVID-19 challenges, we attracted €16.1 million in competitive external funding, published 119 papers since January 2021, established two spin-out companies and graduated six PhD students. The School supported the national effort in tackling COVID-19 by making essential reagents for testing; co-leading the development of a dedicated RCSI COVID-19 testing facility; securing significant COVID-19 funding (from national, international and philanthropic sources); publishing a significant number of papers on COVID-19 in high-impact journals; and winning several national and international awards for COVID-19 research.



Professor Suzanne McDonough
Head of School of Physiotherapy

School of Physiotherapy

Another busy year for the School of Physiotherapy culminated in a successful Internal Quality Review.

The feedback from the school's internal quality review indicated that "teaching and learning provision is of an excellent standard", with "exceptional simulated learning facilities and infrastructure" and that staff demonstrated "high levels of innovation and flexibility...to ensure the continued delivery of the high standard of education notwithstanding the changed circumstances due to COVID-19".

Placement innovation

Placement was one of the most significant challenges for the School this year due to COVID-19 infection control measures, the need to reduce student footfall within the HSE, and significant pressures on clinical teams. Thanks are due to the RCSI practice education team and our clinical partner sites whose flexibility in transforming placements from a traditional model within the hospital setting to a new 'blended placement' model made it possible to graduate another cohort of physiotherapists.

A new 'blended placement' model made it possible to graduate another cohort of physiotherapists.

Teaching and learning innovation

Objective examination, handling skills and hands-on treatment approaches are the hallmark of physiotherapy practice. Transition to a blended learning model required an innovative approach. Using the new camera system within our Movement Lab, the academic team produced videos of clinical skills for asynchronous student review, thus maximising contact time when students were on campus (two or three days), and time for supported students' independent revision off-site.

Simulated patients

We have continued to embed simulation within our curriculum, supported by RCSI SIM. There were several firsts: the school signed a Memorandum of Understanding (MOU) with Curtin University, Australia; Dr Orlagh O'Shea completed an IRC-funded project to develop a framework for simulation as a replacement for traditional hospital placement in Ireland; Dr O'Shea and Helen Heery conducted and evaluated the first-ever simulated clinical placement in Ireland and supported a student engagement project to explore the attitudes of physiotherapy students in Ireland towards simulation-based learning; Dr Helen French and Louise Keating vertically integrated subjective history-taking skills in Year 1 and 2 musculoskeletal modules, supported by in-person and online simulation training.

Development of an online training package

A Sláintecare-funded educational initiative to design and develop an online interprofessional education package addressing childhood obesity (childhoodobesity.ie), led by Dr Grace O'Malley, launched in March 2020. Over 702 health professionals have registered thus far. RCSI students can access this training which will support transformative learning by promoting critical reflection on the learner's own experience, their view of obesity as a disease and how personal beliefs and attitudes might impact the delivery or type of care offered by them to those with this condition.



A simulated scenario observed from the control room of the mock operating theatre at RCSI SIM.

RCSI SIM Centre for Simulation Education and Research

The Centre for Simulation Education and Research (RCSI SIM) innovates through world-class simulation-based experiential education and research to prepare graduates for future clinical practice.

Following the appointment of Professor Walter Eppich, RCSI SIM was formally established. With an emphasis on collaboration, learner-centredness and patient focus, the team supported over 400 teaching sessions and courses, including:

- developing pioneering courses on endoscopy, some using porcine stomachs, for Continuous Professional Development
- creating videos for the National Sepsis Programme to reinforce best practice in recognition and management of paediatric sepsis
- supporting obstetric training with the inaugural RCPI Advanced Practical Skills course covering a range of obstetric emergencies

- responding to COVID-19, transferring Senior Cycle 2 Clinical Skills assessments to 26 York Street

Significant HEA funding enabled recruitment of four full-time researchers to study processes of inter-professional communication training and embed simulation in Higher Education Institutions (HEIs) in Ireland. This research advances healthcare simulation science and fosters cross-sector learnings within Irish HEIs and beyond. RCSI SIM and the EDI Unit received HEA funding for a project to future-proof gender equality in HEIs using simulation-based experiential learning. With Dr Grace O'Malley, School of Physiotherapy, Division of Population Health Sciences, RCSI SIM secured funding to develop a communication training programme for healthcare professionals who work with parents and children presenting with overweight and obesity.

In collaboration with the RCSI Institute of Global Surgery (IGS), RCSI SIM began leading a mentorship programme for teams participating in a €5 million Global Surgical Training Challenge funded by the Intuitive Foundation.

Health Professions Education Centre

In 2021, the Health Professions Education Centre (HPEC) developed a five-year strategy to support RCSI to develop its goals with regards to teaching and learning, delivering evidence-based curricula and, ultimately, to be an international leader in this field.

The aim is to broaden HPEC's involvement with RCSI staff across our campuses and community, and engage with them in the important task of developing our educational culture. The strategy sets out a vision of a culture where educational expertise is woven into the organisation and where RCSI, via HPEC, is

recognised as a centre of excellence. The strategy offers a range of new systems, networks and research initiatives reflected in ten HPEC goals with a five-year implementation plan.

Professor Jan Illing, who was appointed as Professor of Health Professions Education and Director of the Health Professions Education Centre in 2020, will lead strategy.

During the COVID-19 pandemic, the Postgraduate Diploma in Health Professions Education successfully moved online and by August 2021, over 270 RCSI faculty had graduated from the programme.

HPEC collaborated closely with colleagues in IT, the Library, Media Services and RCSI SIM to offer support for online delivery of teaching as part of the digitally-engaged learning (DEL) project to develop the technical and teaching skills of faculty. A total of 64 synchronous online workshops were attended by 379 faculty members. These were supported by asynchronous engagement in VLE activities, hands-on practice sessions and one-on-one drop-in clinics.

This year, ten new virtual patients were created for RCSI. The new scenarios involved cardiovascular, respiratory, paediatrics, sexual health and COVID-19, among others. It is hoped that they will prove an invaluable resource for all our healthcare students in the future.

The strategy sets out a vision of a culture where educational expertise is woven into the organisation.



A clinical teaching session taking place at the RCSI Smurfit Building, Beaumont Hospital in January 2021.



Professor Zena Moore
Head of School of Nursing
and Midwifery

School of Nursing and Midwifery

The School of Nursing and Midwifery is exclusively a postgraduate school and is the largest provider of postgraduate education to nurses and midwives in Ireland.

We have a staff of 23 people and offer a selection of programmes across multiple clinical specialties, from certificates through to PhD level. This year, we had the largest cohort of students ever in the history of the school, with 970 students registering.

With the impact of COVID-19 in early 2020, our primary concern was to provide a truly interactive and accessible learning experience for our students, who were all frontline healthcare staff. To meet this need, we rapidly combined both synchronised and asynchronised modalities, enabling students to access the educational material while facilitating discussion, collaboration and real-time assessment and feedback. What impressed us most was the commitment of our students to further education and training, despite the significant pressures presented by COVID-19.

Our students fully embraced the new hybrid educational model and are exemplars of the values for nursing and midwifery – care, compassion and commitment. Furthermore, during what has been a turbulent past 18 months, our students have shown the significant value of highly-educated nurses and midwives to Irish society.

Our research, housed at the Skin Wounds and Trauma (SWaT) Research Centre, is going from strength to strength. Led by nurses, the team behind the centre has a wealth of experience in both clinical practice and academia. We are immensely proud of our colleagues Dr Chanel Watson and Dr Rosemarie Derwin who were respectively awarded their Ed Doc and PhD this year. Currently we have 14 PhD students undertaking research. Their work spans the fields of acute and chronic disease within diverse settings such as neonatology, diabetes, cardiac surgery, intensive care, and health professionals' education. Our outputs have grown in tandem with the committed work of our students and staff and we are currently ranked number two in the world in the field of pressure ulcer prevention and management.

At the School of Nursing and Midwifery, the words of Alexander Graham Bell resonate clearly. He said, "Great discoveries and improvements invariably involve the cooperation of many minds." This has never been truer than in this year, and we are immensely grateful to all those who have worked so hard to make what sometimes may have felt impossible, possible.

This year, we had the largest cohort of students ever in the history of the school, with 970 students registering.



Katelyn Genoud, PhD scholar and Postgraduate Student Union (PGSU) President 2020/2021

When taking on the role of PGSU President last September, I was acutely aware of the special responsibility entrusted to me and my fellow committee members to represent the research postgraduate student body during the pandemic.

We faced unprecedented challenges, adjusting theses in light of reduced laboratory access and progressing studies off-site, with in-person connections to supervisors and colleagues constrained.

Our engagement with staff and management increased significantly including weekly meetings with the School of Postgraduate Studies to relay any issues and discuss the evolving situation and bi-weekly meetings with Communications to ensure that our cohort was up to date with current information.

Encouraging peer-to-peer activities is a key part of the PGSU's aims so we pivoted our annual events in line with the restrictions including hosting a charity table quiz online and a Run & Ride challenge to raise funds for Pieta House.

We worked closely with the undergraduate student union (UGSU) to help disseminate vital information to the student body with joint initiatives including mental health awareness and Blackboard Collaborate Live sessions.

We also worked with the UGSU and staff on the development of the winter holiday programme, which provided festive food and activities for international students who were unable to return to their home countries for the holidays.

Working in partnership, we ensured that postgraduates had the resources and supports so that essential scientific research could continue.

Physician Associate Programme

RCSI's Physician Associate (PA) Programme is the only one of its kind in the Republic of Ireland. In January 2021, our third cohort of students completed their studies, their innovative spirit as pioneering medical professionals helping to transform the Irish health system through patient-centred interprofessional clinical practice. Over the past year, programme enrolment has grown and high visibility across social media platforms has introduced the programme to a wide variety of potential students.

Our innovative curriculum focuses on clinical problem solving, diagnosis, patient management and technical skills. After eight months of pre-clinical didactic work, students are assigned to clinical placements at Beaumont Hospital and other hospitals within the RCSI Hospital Group. The skills and knowledge acquired during the pre-clinical phase prepare students to engage in experiential learning alongside other members of the medical team. They learn the art and science of medicine and surgery from consultants and experienced PAs across all specialties. Clinical expertise is further developed and assessed with standardised patients and simulation exercises at RCSI SIM. These sessions provide students with additional real-time feedback that solidifies their knowledge base and facilitates professional identity formation.

The PA student journey is an accelerated Level 9 postgraduate MSc programme that moulds highly-qualified

and dedicated students to become graduate PAs who enhance the quality and continuity of medical care.

Professor Lisa Mustone Alexander was appointed as Director of the Physician Associate Programme in autumn 2020. The faculty of the programme are strong advocates of the profession and work tirelessly through their research to document the impact PAs have on the quality of care. Their scholarship also contributes to a wider body of knowledge on the effectiveness and reputation of PAs at the local, national and international level.





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

School of Postgraduate Studies

The School of Postgraduate Studies (SPGS) aims to be a leading centre for postgraduate education and research in medicine and health sciences. Our main strategic objectives are to oversee the quality of all higher degrees (both research and taught postgraduate programmes), provide a transformative learning experience and to grow postgraduate research scholar numbers.

International collaborations

As part of our collaboration with Soochow University, China, five StAR PhD scholars arrived in October 2020. The Memorandum of Academic Research Collaboration between RCSI and SU was also renewed for a further five years. New partnerships with the China Scholarship Council/SU and King Abdulaziz University extend the global reach of the SPGS. A Memorandum of Understanding with Qatar University was agreed to develop new joint postgraduate programmes. Furthermore, the School presented ten International Secondment Awards in 2020, allowing research scholars to travel to renowned research institutes to develop new skills and build career networks.

Achievements

We approved and accredited new MD by Publication, MD by Prior Publication and PhD by Prior Publication routes that sit alongside our classical thesis and PhD by Publication routes.

In addition, RCSI actively participates in the Science Foundation Ireland (SFI) Centre for Research Training (CRT) in Genomics Data Science. The Centre aims to train 115 PhD students across the island of Ireland in applying statistics and the tools of data science to analyse and interpret data generated by modern genomics technologies. Seven CRT scholars enrolled at RCSI in 2020.

In 2020/21 we graduated 59 scholars: 38 PhD, twelve MD, eight MSc, and one MCh. Twenty-four per cent of PhD scholars submitted a thesis by publication. We also graduated one scholar with an NFQ level 9 Professional Certificate in Research Practices.

Between October 2020 and April 2021 we accepted 82 new registrations: 45 PhD, 28 MD and nine MSc. This represents a 47% increase in MD scholars since 2019/20. We now have 15 RCSI StAR (Strategic Academic Recruitment) PhD and 24 RCSI StAR MD scholars (in collaboration with the Beacon Hospital, Blackrock Clinic, Bons Secours and the Hermitage). Our 2020/21 intake also includes two StAR/Fulbright PhD scholars. We currently have scholars of 43 different nationalities registered to the School.

Student Engagement and Partnership (StEP)

The School was represented in four successful student engagement projects in 2021: an introduction to basic methodological teaching and fundamental lab skills for undergraduates; PGR scholars engaged with local DEIS (Delivering Equality of Opportunity in Schools) schools; a pilot of digitally enhanced Clinical Assessment of Skills and Competencies (CASC) examination and a project to develop research laboratory recycling.



Dr Orla Fox outside RCSI on the occasion of her PhD graduation at the virtual conferring ceremony in May 2021.



Eunan Friel
Managing Director
Healthcare Management



Sara McDonnell Executive
Director, Graduate School of
Healthcare Management

Graduate School of Healthcare Management

The Graduate School of Healthcare Management (GSM) (formerly the Institute of Leadership) is dedicated to understanding and improving the management, leadership and organisation of healthcare through the development of the leadership and management skills of healthcare professionals with particular emphasis on those in Ireland, Bahrain and Dubai.

Programmes are characterised by a mix of face-to-face, blended and, increasingly, online provision. At the onset of COVID-19, the team leveraged new technologies to facilitate centralised programme delivery out of Dublin, with synchronous and asynchronous digital engagement across Dublin, Bahrain and Dubai. Despite the challenges caused by COVID-19, 237 students graduated across the three locations.

The School will now advance its post-COVID-19 'digital plus' model, supporting this with enhanced on-site engagement, networking and collaborative working opportunities. This model offers a wide portfolio of

programmes through an efficient and internationally scalable model.

As part of this ambitious growth plan, the Institute is transitioning to an identity that better communicates the positioning and distinctiveness of the School and is now known as the RCSI Graduate School of Healthcare Management (GSM).

Professor Robert McMurray has joined as new Academic Director from the University of York where he was deputy Dean.

Over the past year and half, GSM launched two new academic programmes delivered online: the Professional Diploma in Human Resource and Performance Management in Healthcare and the Professional Diploma in Leading Quality and Value Improvement in Healthcare. These programmes were supported by a €600,000 funding allocation by the HEA, through the July 2020 Stimulus Programme. The Professional Diploma in Clinical Leadership was nominated for 'Best Online Learning Experience' at the Education Awards in 2020.

In addition to extensive teaching activities, two podcast series 'Personal Leadership and Self Care Podcast Series' and 'Conversations that Matter' were broadcast in collaboration with the HSE, as part of the RCSI COVID-19 support response.

System impact

The Executive Development programmes moved to virtual delivery, with new design and delivery supports welcomed by our national and international healthcare collaborators, particularly the HSE.

The third HSE National Clinical Directors Executive Skills Programme saw 32 Clinical Directors complete another iteration of this important programme with additional programming already scheduled for Q4 2021.

A two-year HSE tender for four virtual leadership programmes, supporting 120 executive and senior nursing leaders, was secured as were tenders to record 14 webinars, a platform for frontline nursing, midwifery and health and social care professionals to share their leadership learning and experiences during COVID-19. GSM is also collaborating with the HSE on the delivery of the HSE HR Division's Certificate in Delivering Change in Health Services.

The RCSI Graduate School of Healthcare Management is now at the forefront of University plans to grow postgraduate education. With new structures and operating models, enhanced governance and innovative content, GSM is poised to make a step-change in its contribution to RCSI and the wider healthcare community.

The third HSE National Clinical Directors Executive Skills Programme saw 32 Clinical Directors complete this important programme.



Professor Ciaran O'Boyle
Centre Director
of the Centre for
Positive Psychology
and Health

Centre for Positive Psychology and Health

According to the World Health Organization (WHO), the world is facing a rapidly growing and unsustainable tsunami of lifestyle-related diseases. Current approaches to healthcare are not equipped to deal with the growing impact of such diseases.

Globally, this increasing prevalence of lifestyle diseases, combined with the ageing of populations and limitations on healthcare resources mean that we will need to empower individuals to look after their own health and well-being to a much greater extent than heretofore. Prevention will be as important as cure. As part of the RCSI's response to this, the RCSI Centre for Positive Psychology and Health (CPPH) was established in 2019 to be Ireland's leading Centre for the discovery and application of research on the biological, psychological and organisational factors that lead to positive health and well-being.



CPPH staff marking the Centre's launch in 2020 were (l-r) Dr Trudy Meehan, senior clinical psychologist; Dr Padraic Dunne, immunologist and psychotherapist; and Centre Director Professor Ciaran O'Boyle, pharmacologist and psychologist.

The Centre was formally launched in October 2020 by a key founder of positive psychology, Professor Martin Seligman from the University of Pennsylvania, along with a panel of global leaders in lifestyle medicine.

The CPPH is unique, one of only a small number of centres in the world seeking to integrate positive psychology and lifestyle medicine. It is the only such centre embedded in a health sciences university, with unrivalled access and opportunity to influence and be influenced by the dynamics of healthcare innovation and change. The Centre's primary goal is to deploy evidence-based research to contribute to the flourishing of individuals and organisations across the health, education and corporate sectors.

Postgraduate education

In October 2020, the Centre launched a Professional Diploma in Positive Health, a Level 9 postgraduate programme covering the principles of lifestyle medicine and positive psychology. Twenty-three participants including doctors, nurses, pharmacists, physiotherapists and teachers completed the course and applications for the next intake have grown substantially.

Research

The main focus of the Centre's research is on the interface between positive psychology, health psychology and lifestyle medicine. Current projects include: (i) burnout prevention and well-being enhancement for health professionals (ii) resilience development for students (iii) positive interventions in patients with chronic skin conditions. Planned projects include: (i) corporate strategies for increasing workforce health and well-being (ii) community approaches to health and wellness (iii) national approaches to positive health and well-being.

Engagement

During the year, the Centre hosted a series of lectures on positive psychology and health, with a particular focus on the COVID-19 pandemic, as part of the RCSI's successful My Health series. A free ten-lecture 'Science of Health and Happiness' course, setting out evidence-based principles for optimising health and well-being, was launched to the public. By the end of June, over 29,000 people had registered for the course and the numbers continue to grow.

There are ambitious plans to develop the Centre as a world-leading centre for positive health. A research doctoral programme and a new masters degree in positive health coaching will be launched in 2022 and a significant increase in research resources and outputs is also planned.

CoMPPAS

The RCSI Centre for Mastery: Personal, Professional and Academic Success (CoMPPAS) continues to support students through our team of committed education, career and welfare professionals. The CoMPPAS team also helps coordinate RCSI's orientation programme and International Citizenship Award, as well as supporting the personal academic tutoring programme.

Due to the enormous challenges faced by students this year, the CoMPPAS focused on the following:

Welfare highlights

- Student Welfare support to students self-isolating due to COVID-19, as well as to those in mandatory hotel quarantine
- Student Welfare partnership with Student Union Welfare to deliver events including Mental Health Month, and Health and Well-being Week
- Student Welfare partnership with Centre for Positive Psychology to provide video resources for students
- delivery of 'Responding to Students in Distress' and 'Staff Buddy' Training

Learning support

- service delivery moved online via consultations, workshops and tutorials
- additional part-time learning support tutors for students registered with the Learning Access and Facilitation service
- in collaboration with the Library team, an online booking system introduced for study spaces and library access for students with access and disability needs
- introduction of a pilot online learning assessment and support tool for students with additional learning needs

Career highlights

Innovation

- the CoMPPAS Careers Team is piloting a model of Career Partnering for each school for the academic year 2021-2022. A Career Advisor will be appointed to each school to be the point of contact for all career-related activities with meetings with heads of school, year heads and faculty coordinators to increase awareness of supports available
- career framework and programme of work for all schools revisited and updated
- e-portfolio initiative developed using Careerhub platform to include registration questions in line with career framework for all students
- event platform launched to enhance opportunities for hosting virtual events and leveraging data to support further reporting

Engagement

- collaborated with Students Union and student societies to run a Professional Identity Series of six webinars, with nine international speakers, attended by over 300 students
- Careers Team contacted all Senior Cycle 2 students who graduated this year to congratulate them and remind them that they can avail of the career service for up to three years post graduation. Those who were unsuccessful were offered a one-to-one appointment to discuss their career strategy.
- development of community of practice with career advisers in other third level universities



Students picking up festive food on Christmas Eve as part of the winter holiday programme that supported international students staying in Dublin over the winter break.



Alice O'Gorman, a champion chess player, winner of the 2021 Irish Women's National Chess Championship, was awarded a Moira O'Brien Sports Scholarship.

STUDENT EXPERIENCE

Pursuits outside of the classroom are highly valued at RCSI. We recognise how extracurricular activities enrich the student experience and serve to develop skills, learning and knowledge that reach far beyond college years and into life as a practicing healthcare professional.

Although in-person events were curtailed during the academic year due to the pandemic, students re-imagined many of their planned activities in a virtual setting. Working with the Student Services Office and partnering with academic and professional services staff across the University, a wide range of events and activities were successfully delivered while strictly adhering to government COVID-19 guidelines at all times.

Student Life HQ

To help students navigate extracurricular activities remotely, the Student Services Office launched the Student Life HQ — a one-stop digital shop for all clubs, societies and student events. It features a real-time calendar with direct access to virtual events and activities. For newly arriving students it served as a centralised hub to learn about the 87 active clubs and societies in addition to facilitating new member sign-ups.

Winter holiday programme

Due to the health and safety risks of overseas travel and the possible impact to students' academic progression, RCSI advised international students against travelling to their home countries for the winter holiday break at the end of Semester 1 in 2020.

With so many students making this tough choice, working in partnership with student unions, staff from across the University devised a creative programme of support and events within the restrictions of COVID-19 for students to look forward to during their two-week break. The result was a winter holiday programme that included Christmas catering, an outdoor events programme, student volunteering and on-line clubs and societies events.

Student clubs and societies highlights

In spite of COVID-19, RCSI's 87 clubs and societies still provided a vital source of engagement for students during the pandemic, while also serving to give back to the wider community through fundraising initiatives.

In April 2021, the RCSI Paediatrics Society hosted the seventh annual (and first virtual) Teddy Bear Hospital. The event attracted over 1,330 views where children and their families were able to watch and learn how to treat their teddies from home. The society also raised €2,500 in support of the Jack & Jill Foundation, an Irish charity that supports children with neurological disabilities.

"The Impacts of a Global Pandemic: The Ways COVID-19 Has Influenced Our Lives and United Medical Forces" was the theme of the addresses at the 88th Biological Society Inaugural Meeting, which took place virtually in January 2021.

The RCSI Research Skills Society in collaboration with the RCSI Leadership and Healthcare Management Society hosted the Champions of Change Innovation Challenge, which involved nine teams of students devising innovative methods to increase vaccination uptake in Ireland.

The Choral Society adapted to a virtual format with virtual rehearsals to connect and continue their passion for singing together. They showcased their years' work by producing three virtual performances, one of which was entered to compete in the first-ever Choral Intervarsities.

National recognition

RCSI joined the Board of Irish College Societies (BICS) in 2020/2021 to gain insight and guidance in running societies during a pandemic. As part of BICS, RCSI submitted 13 Society nominees for the 2021 Awards. We were exceptionally proud that RCSI was awarded three National BICS Awards in recognition of our student societies:

We were exceptionally proud that RCSI was awarded three National BICS Awards in recognition of our student societies.

- RCSI Leadership and Healthcare Management Society for Most Improved Society
- Emmanuel Eguare (from RCSI Pathology Society and RCSI Music Society) for Best Individual
- RCSI Surgical Society for Best Departmental Society

Sporting Highlights

Sport is an integral part of student life at RCSI with 35 active sports clubs. Each year, two Moira O'Brien Sports Scholarships are awarded in recognition of excellence in sport. The 2020/2021 scholarships were awarded to Alice O'Gorman, a champion chess player who won the 2021 Irish Women's National Chess Championship and Aoife Hanrahan, a champion kayaker who will compete in the 2021 European Championships in Paris, France.



Katelyn Genoud, PGSU President 2020/2021 with fellow postgraduate scholars Paige Hinton and Conor Duffy who raised funds for Pieta House through the Run and Ride challenge. [Read more on page 37](#)

In October 2020, over 70 students participated in Breast Cancer Ireland's virtual Great Pink Run. Students completed 5k and 10k runs around Dublin and at locations around the world. The charity event raised over €900,000 and RCSI students were proud to have contributed to this collective fundraising effort.

Over two weeks in February 2021, the Sports Union collaborated with 15 RCSI clubs to create the Big February Challenge. 150 students competed in groups of three to complete 15 health and fitness related challenges. The aim was to encourage students to stay active even during lockdown in a fun and creative way while also enjoying some healthy competition.

RCSI Gym initiatives

The RCSI Gym team organised #RCSITogether10k, a 12-week running and walking campaign involving 192 students and staff who received coaching using personalised plans, weekly live workshops, nutrition plans and in-person group training runs. The event culminated with in-person events in the Phoenix Park and St Anne's Park at the end of June where pods of staff and students came together (albeit apart) to celebrate each other's success.

In January 2021, the RCSI Gym Team devised the Project 6, a six-week challenge for students and staff that included interactive workshops, live classes and one to one support. Staff participants were invited to make a donation when signing up to the initiative and this resulted in €6,120 being raised for the Student Hardship Fund.

Self-care and leadership

The undergraduate Student Union SU Mental Health Awareness Subcommittee was formed in 2020/2021 to help provide information, guidance and tips on the psychological well-being of students. The subcommittee normalised conversations about mental health, empowering students to speak out and ask questions over weekly virtual catch-up cuppas; broadened their reach on social media platforms; and offered training to staff and students on suicide awareness and prevention.

The pilot programme of the Student Leadership Development Programme took place during February and March of 2021. 63 student leaders successfully completed the four-week programme which was aligned with the NHS Clinical Leadership Competency Framework. The programme focused on four core themes: developing influential leadership skills; equality, diversity, inclusion; self-care and resilience as leaders; and data protection. The programme was part of a student staff partnership which was developed under the Student Engagement and Partnership (StEP) initiative.

“ We have leveraged
our expertise in blood
clotting research to
make rapid advances
in the understanding
of COVID-19. ”

Dr Jamie O'Sullivan, StAR Research Lecturer and Principal
Investigator, School of Pharmacy and Biomolecular Sciences
and Irish Centre for Vascular Biology



03

Leading
impactful
research

1,435

**PUBMED INDEXED
ARTICLES PUBLISHED
IN 2020**



€2.7M

**RESEARCH
COMMERCIALISATION
FUNDING (2020)**

40%

**INCREASE
IN ARTICLES
PUBLISHED
(FROM 2019 TO 2020)**



32%

**SUCCESS RATE
OF RCSI-LED
H2020 RESEARCH
PROPOSALS (2014-2020)**



40

**UNDERGRADUATE
PARTICIPANTS
IN RCSI STUDENT INNOVATION
CHALLENGE 2021**

Leading impactful research



Professor Fergal O'Brien
Director of Research and Innovation

RCSI's research strategy in supporting basic, translational and clinical research is leading to scientific breakthroughs, innovation and partnerships that allow us to rapidly respond to changing healthcare needs.

It has been an outstanding year for RCSI research in terms of publications in top-tier journals, new industry partnerships and external grant funding, particularly in the areas of infrastructure, commercialisation, international programmes and those connected with early career researcher training. While social distancing made working conditions challenging, the dedication of our research community helped us maintain our high level of internationally recognised research excellence. Throughout the pandemic, our Principal Investigators (PI) provided expert opinion to policy makers, healthcare providers and the public, provided testing reagents and buffers to the HSE and won funding for COVID-19-related research which has already yielded high-impact publications. Collaboration by our basic scientists, clinicians and industry partners, supported by our team in the Office of Research and Innovation (ORI), continues to enable clinical and patient-centred research that addresses national and international health challenges and ensures that high-impact research can be rapidly translated to the clinic for the benefit of human health.

New initiatives

To maintain our position as a leading research-focused university, it is essential we continually develop our infrastructure, facilities and supports. To this end, RCSI has invested in new IT infrastructure for research imaging and data analytics, grown the Sponsorship Office to assist our researchers in establishing and running clinical trials and continued to invest in the replacement and upgrading of research equipment, some of which was used to leverage SFI infrastructure funding for state-of-the-art imaging equipment.

This year we established the Research Strategy Committee to identify strategic opportunities to grow RCSI research and innovation activities and improve our research performance and impact. We also established the Biobanking Committee led by Professor Gianpiero Cavalleri and have invested in developing our institutional biobanking resources. In addition, RCSI has deepened our commitment to Public and Patient Involvement (PPI) in research by joining the HRB-funded PPI Ignite Network. We are delighted to welcome Lorna Kerins to RCSI who will assist our researchers to embed PPI in their studies.

RCSI has deepened our commitment to Public and Patient Involvement (PPI) in research by joining the HRB-funded PPI Ignite Network.

We congratulate StAR lecturers Dr Ingmar Schoen (School of Pharmacy and Biomolecular Sciences) and Dr Jennifer Ryan (Epidemiology and Public Health Medicine) who were appointed to tenured lecturer positions in the past year. We extended the StAR MD programme beyond the RCSI Hospital Group to include the Beacon Hospital, Blackrock Clinic, Bon Secours Hospital Dublin and Hermitage Medical Clinic and our postgraduate numbers have grown consistently over the past three years (82 new postgraduates in 2020/2021, 28 of whom are MDs). Our ambition is to grow postgraduate numbers further and to give our researchers more opportunities to work in multidisciplinary teams and with industry. An example is NeuroInsight, a new research training programme led by FutureNeuro, which was awarded a Marie Skłodowska-Curie Actions (MSCA) COFUND to

train over 30 postdoctoral fellows. In addition, we have developed a PhD programme with Soochow University, China that will strengthen this partnership and see highly-trained Chinese students receive PhDs in RCSI.

Research highlights

Researchers at RCSI published a total of 1,435 PubMed indexed articles in 2020 (up 40% on 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 as the average publication in their field (measured by the field-weighted citation index) and RCSI has the highest citation impact in Ireland (Times Higher Education World University Rankings 2021). Below are some examples of articles published in high-impact journals during the annual reporting period where the senior author was an RCSI staff member.

Blood test to predict which COVID-19 patients will develop severe infection

A research project led by Professor Gerry McElvaney (Medicine) identified that the relative levels of interleukins IL-6 and IL-10 can predict whether a patient with COVID-19 will develop a severe infection. The measurement, called the Dublin-Boston score, enables clinicians to make more informed decisions

when identifying patients who may benefit from certain therapies or earlier admission to ICU. The study was published in *The Lancet's* translational research journal *EBioMedicine*.

Discovery of potential therapeutic to treat breast cancer

A study published in *Science Advances* led by Dr Tríona Ní Chonghaile (Physiology and Medical Physics) found that a molecule called BAS-2 can selectively kill cells of triple negative breast cancer while leaving normal healthy breast cells unaffected. These results suggest that a small molecule analogue of BAS-2 has the potential to be developed as a new therapy for this hard-to-treat cancer subtype.

Blood test to predict those likely to develop psychotic disorders

A study led by Professor David Cotter (Psychiatry) showed that testing the levels of ten specific proteins in blood samples can predict whether a person at risk of psychosis is likely to develop a psychotic disorder years later. The test identified those who would go on to develop a psychotic disorder in 93% of high-risk cases, and it correctly identified those who would not in 80% of cases. These results were published in the journal *JAMA Psychiatry*.



Dr Kulwinder Kaur, Postdoctoral Researcher, Anatomy and Regenerative Medicine, at work in the Tissue Engineering Research Group laboratories.

The test identified those who would go on to develop a psychotic disorder in 93% of high-risk cases.

Discovery of a new target to treat excessive inflammation

Dr Claire McCoy (Pharmacy and Biomolecular Sciences) and her team have found a new way to halt excessive inflammation by regulating a type of white blood cell that is critical for our immune systems. They showed for the first time that arginase-2 is critical for decreasing a potent inflammatory cytokine called IL-1. The findings, published in the journal *Nature Communications*, may lead to the development of new targeted treatments for a range of diseases such as multiple sclerosis, arthritis and inflammatory bowel disease.

New biomaterial that helps bones heal faster

A research project led by Professor Fergal O'Brien (Anatomy and Regenerative Medicine), has developed a new biomaterial that helps bones heal by enhancing adults' stem cell regenerative ability. The biomaterial mimics the structure of bone tissue and incorporates nanoparticles that activate JNK3, which is a key driver of children's stem cells being more sensitive to their environment and regenerating better than adults' stem cells. These findings published in the leading specialist journal in the field *Biomaterials*.

Innovation

In 2020, RCSI's improved knowledge transfer performance continued with RCSI again exceeding its targets as independently set by Knowledge Transfer Ireland. It was a particularly good year for research commercialisation with the number of agreements concluded to commercialise intellectual property arising from RCSI's research activities increasing by 100% to exceed our target twofold. During the reporting period, the value of research commercialisation funding was €2.7 million. These metrics are testament to RCSI's world-class research expertise and focus on commercial application – greatly assisted by the Innovation team in the ORI led by Dr Aoife Gallagher. Industry engagement, as measured by number of agreements, exceeded targets by 10% and industry funding grew significantly to €4.5 million from €2.3 million the previous year – demonstrating again the quality of our applied research portfolio and industry support team in the ORI led by Dr Seamus Browne.

Innovation highlights

RCSI spin-out founders present at Bioequity

international investment conference
RCSI spin-out company founders Professor Steve Kerrigan of Inthelia Therapeutics and Professor Helena Kelly of Oncolize pitched at the RCSI and Trinity co-hosted academic spin-out track at the BioEquity Europe investment conference where biotech, pharma and medtech start-ups are given the chance to shine and potentially attract international investment.

RCSI licences tissue engineering technologies to Locate Bio

Locate Bio, an orthobiologics-focused regenerative medicine company, in-licensed multiple late-stage orthobiologics assets developed by the RCSI Tissue Engineering Research Group. The RCSI licensing deal includes best in class, proprietary, natural collagen-based delivery technologies, which have been developed into products for the regeneration of bone, the treatment of infection and regeneration of cartilage tissues. This partnership will unlock the potential of RCSI technologies to improve treatments and quality of life for patients with orthopaedic conditions.

Funding awards

RCSI continued to have great success in securing research funding from a wide range of funding bodies both national and international. The total external funding awarded to RCSI for the calendar year 2020 was €31.5 million (up from €20.9 million in 2019). Examples of a number of the larger RCSI-led awards in the last twelve months include:

- Professor David Cotter, IMPETUS: Investigating Markers derived from Proteomics for Estimation of Transition from the Ultra high-risk State to psychotic disorder. Wellcome Trust Innovation Flagship: €1.4 million.
- Professor Jochen Prehn, Next generation single cell analysis platform combining high throughput super-resolution imaging, laser capture and robotic preparation for single cell sequencing. SFI Research Infrastructure Programme: €1.2 million.
- Professor Gianpiero Cavalleri, Advanced skills for data analytics in neurological diseases (NeuroInsight). Horizon 2020 MSCA CoFund: €956K.
- Professor Gianpiero Cavalleri, Centre for Research Training (CRT) in Genomics Data Science – Phase I. SFI Research Centres: €782K.
- Dr Alan Hibbitts, HyAMesh - Improving Outcomes in Glaucoma Surgeries. Enterprise Ireland (EI) Commercialisation Fund: €667K
- Dr Brona Murphy, A novel platform for cancer drug discovery. EI Commercialisation Fund: €649K.
- Professor Anne Hickey, The StrokeCog-R study: a randomised pilot study of a novel cognitive rehabilitation intervention in stroke. HRB Definitive Intervention and Feasibility (DIFA): €400K.



Student Innovation Challenge Leader Dr Helen Fogarty, School of Pharmacy and Biomedical Sciences (centre) with the winning Team RED – Phoebe Chieng, Sarah Kelly, Muskan Sardana and Luke Sheridan.

- Professor David Henshall, AAV9-anti-miR-134 (AVanti-134); Translating an effective anti-epilepsy microRNA inhibition approach from pre-clinical proof-of-principle to a clinic-ready, virally-delivered treatment. Wellcome Trust Innovator Award: €382K.
- Dr Helen French, An EDucation and eXercise intervention (EDX-Ireland) for gluteal tendinopathy in an Irish setting: a feasibility randomised controlled trial (LEAP-Ireland trial). HRB Definitive Intervention and Feasibility (DIFA): €330K.

Awards and honours

HRB Impact Award 2021

Professor Gerry McElvaney (Medicine) was awarded the prestigious HRB Impact Award 2021. The award recognises the lasting impact his work has had on human health and patient care by applying his respiratory medicine research findings into clinical practice. His research has influenced the development of local, national and international guidelines including European and World Health Organization developments and is an exemplar for what RCSI research strives to achieve. In addition to this honour, he was also elected as a Member of the Royal Irish Academy (RIA) in 2021, Ireland's foremost body of experts in the sciences and humanities.

Irish Pharma Industry Awards

A team led by Professor David Henshall and Dr Cristina Reschke (SFI FutureNeuro centre) won the Research and Development Award at the 2020 Irish Pharma

Industry Awards for their work on pioneering microRNA therapeutics for the treatment of epilepsy and their sustained industry engagement and commercialisation of this research.

S3 Connected Health and RCSI win Irish Medical Device Association Medtech Award

Professor Richard Costello (Medicine) together with colleagues in UCD and S3 Connected Health developed Enodatis for COVID-19, a clinical support tool that helps healthcare professionals in hospitals quickly triage and assess COVID-19 patients with a simple application on their smartphones. Enodatis for COVID-19 was named the Irish MedTech Association's eHealth Innovation of the Year.

Science Foundation Ireland (SFI) Industry Partnership Award 2020

Professor Fergal O'Brien was winner of the SFI Industry Partnership Award 2020 in recognition of his collaboration with Integra LifeSciences, spanning more than 15 years, to develop new biomaterials for nerve repair. The award was announced at the 2020 SFI Awards by Minister for Further and Higher Education, Research, Innovation and Science, Simon Harris TD.

Virtual Research Day 2021 and CEO Innovation Awards

Like many conferences during the pandemic, RCSI Annual Research Day 2021 went virtual for the first time. Coordinators Professor Darran O'Connor (Pharmacy and Biomolecular Sciences) and Dr Christopher Byrne (ORI) put together an excellent programme

of speakers including 16 postgraduate and early-career researchers. A highlight was the John J Ryan Distinguished Lecture, 'Developing vaccines during a pandemic' delivered by Professor Adrian Hill, Director of the Jenner Institute, Oxford who gave an excellent overview of his work leading the rapid development of the Oxford/AstraZeneca COVID-19 vaccine.

The RCSI CEO Innovation Awards were presented by RCSI Chief Executive, Professor Cathal Kelly to recognise the outstanding contribution of RCSI researchers to research commercialisation and industry engagement activity.

The Invention Disclosure awards recognise the role of non-PI inventors in the submission of invention disclosures. Awardees were: Danielle Nader, Ashwene Rajagopal, Mthulisi Khuphe, Robert Murphy, Orla Willis Fox, Luis Soriano, Mark Lemoine, Tehreem Khalid, Ruairí Brannigan, Chiara De Santi, Jennifer Dowling, Remsha Afzal, Frances Nally, Conor Duffy and Damir Vareslija.

The CEO Innovation Award winners for industry engagement, research commercialisation and the clinician award were Professor Fergal Malone (Obstetrics & Gynaecology), the Tissue Engineering Research Group (Bioengineering & Regenerative Medicine) and Professor Richard Costello (Medicine).

RCSI students pitch solutions to global healthcare challenges

More than 40 undergraduate students took part in this year's RCSI Student Innovation Challenge 2021 as part of the taught component of this year's Research Summer School. The event invited students at RCSI to develop ideas and innovations to solve some of the biggest challenges facing global healthcare. The winning team, Team RED, successfully pitched their idea to a panel of judges for a multi-pronged campaign to attract BAME blood donors to help address the shortage of ethnically matched donors available for the treatment of sickle cell disease.

Enodatis for COVID-19 was named the Irish MedTech Association's eHealth Innovation of the Year.



Professor Gerry McElvaney, Professor of Respiratory Medicine

Throughout my career as a clinician scientist, I have applied research evidence to help bring about positive change in healthcare and practice and I was honoured to have this work recognised by the HRB Impact Award 2021.

I focus on a specific genetic disorder called alpha 1 anti-trypsin deficiency (AATD) that leads to an increased risk of developing lung complications such as chronic obstructive pulmonary disease (COPD).

My research team has developed diagnostic and screening tools for alpha-1 anti-trypsin deficiency which are now replicated globally. I have also played a major role in the development of the only specific treatment currently available for COPD arising from this disorder, called AAT augmentation therapy. I am also proud that much of our work and advocacy to discourage smoking has been of benefit to the wider public.

It is wonderful to see the outcomes of research materialise into real benefits for patients and the public and how the efforts to translate these findings have visibly improved people's lives. People are at the centre of this work and we host annual patient conferences where new research and treatment options are discussed together.

Our work continues to investigate the risks of developing COPD and whether lung disease may differ between different genetic types of AATD. By pursuing this research, I hope to further inform management and treatment strategies to improve patient outcomes.

Contribution to the UN Sustainable Development Goals

- **3,280** collaborating research institutions worldwide
- Partnership with Kids Operating Room on first pan-Africa **paediatric surgery e-learning platform**
- Joined PPI Ignite Network to enhance **public and patient involvement in research**

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



- Free online public course on **The Science of Health and Happiness**
- Website to support **youth mental health** during COVID-19 pandemic
- **7000+** registered viewers of RCSI MyHealth public lectures

11 SUSTAINABLE CITIES AND COMMUNITIES



- Fifth annual **International Citizenship Awards** in recognition of cultural and social skills for healthcare graduates

10 REDUCED INEQUALITIES



3 GOOD HEALTH AND WELL-BEING



- **Joint #2 in the world** in Times Higher Education (THE) Impact Ranking 2021
- **Strong health research:** 8,038 publications, 239,503 views, 181,505 citations (Source: SciVal – 2011-2020)
- First **National Preclinical Imaging Centre** to enhance medical research established



4 QUALITY EDUCATION



- **€7.8m** from Higher Education Authority to expand programme delivery
- **26,000** health professions alumni across 94 countries
- **Largest clinical simulation centre** in Europe

5 GENDER EQUALITY



- PROGRESS Fellowship for **Women in Surgery** celebrates its third year
- **Athena SWAN Bronze Awards** for School of Pharmacy and Biomolecular Sciences and Department of Physiology and Medical Physics

7 AFFORDABLE AND CLEAN ENERGY



- **Green Flag** for sustainability and environmental management
- **100%** green electricity procured
- **38%** improvement in energy efficiency (kWh/sqm) since baseline 2006

8 DECENT WORK AND ECONOMIC GROWTH



- Recognised by Exercise is Medicine® creating **culture of well-being** on campus.
- Listed in 'Top 100 Companies **Leading in Wellbeing**' index by *Business & Finance* in partnership with IBEC



“The infodemic has highlighted our duty to provide expert media commentary so the public can access evidence-based health information.”

Professor Fidelma Fitzpatrick, Professor of Clinical Microbiology and member of the RCSI MyHealth Expert Directory.



04

Supporting
healthcare
and society

29,000

REGISTERED FOR SCIENCE
OF HEALTH AND
HAPPINESS COURSE



6,895

NATIONAL MEDIA
MENTIONS

559

SPECIALIST
SURGEONS
GRADUATED FROM
COSECSA

7,964



REGISTERED TO
RCSI MYHEALTH
LECTURE SERIES 20/21



500

REGISTRANTS FROM
45 COUNTRIES ATTENDED GLOBAL
SURGERY GRAND ROUNDS

Supporting Healthcare and Society



Abi Kelly
Director of International Engagement
and External Relations

As the pandemic continues to impact lives and livelihoods across the world, RCSI underscored our commitment to tackling issues affecting human health and well-being and global health inequities.

A signatory to the United Nations' Sustainable Development Goals (SDG) Accord, RCSI is working towards this 'blueprint to achieve a better and more sustainable future for all' with a particular focus on SDG3 Good Health and Well-being.

The launch of the Institute of Global Surgery (IGS) in March 2021 was a powerful demonstration of this and also of our strategic vision to inform and improve healthcare delivery through academic research, clinical expertise and insight.

Five billion people globally lack access to safe, affordable and timely surgical care. The crisis is most acute in sub-Saharan Africa, where 93% of the population is unable to access the surgery they need when they need it.

Building on a long-standing partnership with the College of Surgeons of East, Central and Southern Africa (COSECSA), the new RCSI Institute will support the development of surgical training programmes in the continent, with the primary aim to encourage more doctors to pursue careers as surgeons and to retain them in their home countries.

Closer to home, RCSI continued to engage with and support policy makers, regulators and clinical and healthcare leaders in their efforts to improve healthcare delivery nationally.

In February 2021, RCSI commemorated the centenary of the death of inspiring Irish healthcare leader, Sir Charles Cameron. A Professor of Hygiene and Political Medicine at RCSI from 1864, Sir Charles highlighted that good health is achieved and informed beyond the clinic, in paying attention to inner city living conditions, to the well-being of prisoners, to the control of infectious outbreaks – to the population at large. To mark this centenary, RCSI conferred the inaugural Cameron Award for Population Health on Dr Mike Ryan, Executive Director of the World Health Organization's Health Emergencies Programme, another inspiring Irish healthcare leader, who has been a central figure in the global response to the pandemic.

With mental health now recognised as the 'unseen pandemic', RCSI's Centre for Positive Psychology & Health (CPPH) launched a ten-session online programme on the 'Science of Happiness'. The free course brought evidence-based explanations of how we experience happiness in our lives and attracted almost 30,000 participants.

While this and our other public engagement activities had to move online, we continued our important relationships with schools and colleges to support students in post-primary education to reach their full potential and to promote interest in science and healthcare careers.

Recognising the societal impact of our work, RCSI was ranked joint second in the world for SDG 3 'Good Health and Well-being' in the Times Higher Education Impact Rankings 2021.

RCSI was ranked joint second in the world for SDG 3 'Good Health and Well-being' in the Times Higher Education Impact Rankings 2021.

Community in Ireland

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.

Local community engagement

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

Christmas in the Community 2020

In normal circumstances, the 40th annual Christmas lunch for older people in our local community would have taken place at RCSI College Hall in December 2020. Although it was not possible to welcome guests as usual, REACH RCSI teams of volunteer students and staff mobilised to deliver festive gifts to people in their own homes. Gifts were accompanied by personalised cards made by RCSI student volunteers. RCSI students, staff and local community members also created a virtual choir video, and a DVD of the choir's performance was distributed to each older person with their gifts. Christmas dinners and stockings were also delivered to the Peter McVerry Trust for residents of a number of hostels.

RCSI student contact tracing

Over 70 of our senior healthcare students volunteered to train as COVID-19 Contact Tracers for the HSE over the Christmas holidays, thus providing extra capacity to the national system and giving students valuable training and skills.

AWS Wellness Workshop

In November 2020, two student societies collaborated with REACH RCSI to develop a remote Wellness Workshop for local secondary school students at Presentation Secondary School, Warrenmount.

#RCSIPulseCheck Challenge

Primary school students from three local DEIS schools participated in this student partnership project to promote physical health among primary school students by teaching participants how to check and record their pulse before and after set activities.

Leaving Certificate Chemistry

Professor Donal O'Shea (Chemistry) facilitated weekly virtual group Chemistry tutorials for local Leaving Certificate students throughout the academic year.

Junior Researcher Programme

In support of the recently introduced Science in Society Investigation component at Junior Certificate level, REACH RCSI formed a staff/student partnership with RCSI Postgraduate Student Union (PGSU), School of Postgraduate Studies (SPGS) and REACH RCSI link schools to create the Junior Researcher Programme whereby RCSI PhD students engaged remotely with local Junior Cycle students.

Foundation Year electives

While Foundation Year (FY) electives could not proceed in the usual way, REACH RCSI supported two teams of FY students with elective mock research proposals entitled, 'Exploring RCSI Students' Perspectives on Student Volunteering' and 'Measuring Awareness of United Nations Sustainable Development Goals among RCSI Healthcare Students'.

HEA PATH Network

In December 2020, RCSI joined the HEA PATH Network and is now part of a six-college consortium with University College Dublin (UCD), Institute of Art and Design (IADT), Marino Institute of Education (MIE), National College of Art and Design (NCAD), Trinity College Dublin (TCD) to promote and advance equality of access to higher education for under-represented groups.

Collaborative initiatives

In 2021, three collaborative initiatives took place: Creative Arts Spring School, Creative Arts Summer School, and Dublin Learning City Festival. RCSI hosted 120 participants from underrepresented groups across the two arts school events.

The Dublin Learning City partnership was formed to advance Dublin as a learning region, as defined by UNESCO. In March 2021, the Dublin Learning City Festival took place virtually with a diverse programme involving over 100 organisations and 8,000 participants.

As a partner organisation, RCSI staff and students hosted a variety of online learning opportunities.



RCSI students volunteered for five months at one of Ireland's largest vaccination centres located at The Helix in Dublin.

National community engagement

Transition Year MiniMed programme

In February 2021, over 4,000 Transition Year students took part in RCSI's first-ever virtual Transition Year MiniMed programme.

The programme gave participants the opportunity to learn more about what it's like to train and work as a doctor, with talks and video sessions from leaders across general practice, heart surgery, pathology, paediatrics, forensic medicine, transplants, obstetrics and gynaecology.

This huge engagement with the programme is evidence of the great interest in careers in healthcare among young people which has emerged during the pandemic. More than 40 speakers took time out of their busy clinical and academic schedules to deliver exciting and informative sessions during the week.

Virtual delivery of this series has allowed us to reach a larger audience, both nationally and internationally.

RCSI MyHealth lecture series

Following public health guidelines in response to COVID-19, the RCSI MyHealth lecture series transitioned from live, in-person events to pre-recorded, virtual events. Online delivery meant adapting from the traditional lecture-style to a panel discussion format.

The autumn/winter 2020 lectures specifically addressed the myriad of physical, mental and emotional health issues that have arisen during the COVID-19 pandemic, including living with the new normal, a toolkit for winter readiness and supporting children and youth health this winter.

Positive health was the focus from January to March, with topics including the science of happiness, managing coronaphobia and future-proofing our youth.

The spring/summer 2021 series included Vaccinations in the Time of COVID-19, Fertility and Pregnancy Health, Living Well with MS, LGBTI+ Health: Transgender Healthcare and a special guest lecture Professor Martin Seligman, one of the key founders of Positive Psychology.

Virtual delivery of this series has allowed us to reach a larger audience, both nationally and internationally. Almost 8,000 people registered for virtual events in the 2020/21 series, and the 12 RCSI MyHealth virtual events have been viewed over 57,000 times on YouTube and over 197,000 times on Facebook. Virtual delivery has enhanced accessibility to expert-driven healthcare information for viewers of the series.

RCSI MyHealth Expert Directory

The RCSI MyHealth Expert Directory is a resource for journalists that brings together details of RCSI experts, across a range of healthcare issues and concerns, in an online listing.

In support of the UN Sustainable Development Goals to promote good 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. RCSI was mentioned in 6,895 media articles and segments in Ireland during the reporting period, driven by the contributions of RCSI expert spokespeople. Expert commentary has featured in international outlets including the *New York Times*, BBC and *The Guardian*. In March 2021, RCSI became members of The Conversation, which has provided an additional platform to highlight thought leadership from our expert commentators to international audiences.

Global Community



Professor Mark Shrimme
O'Brien Chair of Global Surgery

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

Institute of Global Surgery

Five billion people worldwide do not have access to safe, affordable and timely surgical and anaesthesia care. The Institute of Global Surgery (IGS) is building on RCSI's track record of over a decade working in research, education and training in sub-Saharan Africa to address this crisis. The IGS's vision is "Rooted in equity, and in collaboration with our partners, we create patient-centred, outcomes-based global surgery research and education."

In July 2020, I commenced my role as inaugural O'Brien Chair of Global Surgery, to further this vision.

New projects and partners

In November 2020, the IGS announced a new partnership with global medical technology company, BD (Becton, Dickinson and Company). Created in collaboration with leading Malawian paediatric surgeon, Professor Eric Borgstein, KidSURG is working to expand surgical access to eight million children in Malawi. BD has donated \$500,000 in cash and equipment to this partnership.

Also in November, the IGS signed a Memorandum of Understanding with the United Nations Institute for Training and Research (UNITAR) and Global Surgery Foundation (GSF) to enhance surgical capacity and strengthen surgical systems to accelerate progress towards universal health coverage.

In January 2021, the IGS announced a successful bid to lead the mentorship component of the Global Surgical Training Challenge. The two-year €5 million Challenge is funded by Intuitive Foundation and seeks to create novel, low-cost surgical training prototypes for surgical practitioners in low- and middle-income countries. The IGS is working closely with RCSI SIM and RCSI Department of Surgery to mentor the ten competing teams who are based across twelve countries from Central and South America, to the Middle East, Asia and Africa.

At a virtual event in March 2021 to mark the official launch of IGS, Dr Gary Parker, CMO, Africa Mercy, Mercy Ships delivered a keynote speech. Building on this successful event, the IGS has since held online Global Surgery Grand Rounds on the first Wednesday every month, which have attracted over 500 registrants from 45 countries. These Grand Rounds highlight the work of RCSI researchers and global surgeons, as well as amplify the voices of people working within global surgery who do not usually have an international platform.

In May 2021, the IGS announced the launch of the pan-African paediatric surgery e-learning platform. Funded by Scottish charity Kids Operating Room, this free-of-charge teaching resource covers the paediatric surgery curricula of the West Africa College of Surgeons (WACS) and the College of Surgeons of East, Central and Southern Africa (COSECSA). The IGS is coordinating this project and was honoured to win the 2021 Project Management Institute (PMI) Ireland 'Project Management for Social Good Award'.

Over 800 surgical trainees and 25 anaesthesiology trainees are currently enrolled.



Theatre nurses and anaesthetists taking part in the training provided by SURG-Africa teams at Mwanza district hospital in Malawi.

RCSI/COSECSA Collaboration Programme

In June 2021, the RCSI/COSECSA Collaboration Programme was awarded €500,000 from Irish Aid to continue its work training and retaining more surgeons and anaesthesiologists in sub-Saharan Africa. This brings the total funding awarded to €5.6 million, along with significant in-kind support from across RCSI. Now in its 14th year, this is RCSI's longest-running global surgery partnership.

To date, 559 specialist surgeons have graduated from COSECSA, over 90% retained in their home countries. The first 19 regionally qualified anaesthesiologists trained under this partnership will graduate from CANECSA (the College of Anaesthesiologists of East, Central and Southern Africa) in 2021. Over 800 surgical trainees and 25 anaesthesiology trainees are currently enrolled in

COSECSA and CANECSA, and both colleges are being supported to sustainably grow as regional training bodies through the collaboration with RCSI and CAI (College of Anaesthesiologists of Ireland).

SURG-Africa

Led by RCSI, the largest surgical capacity-building programme in the world, the Scaling up Safe Surgery for District and Rural Populations in Africa (SURG-Africa) project, has been successfully completed. Implemented in collaboration with two European and three African partners, after five years of operations, SURG-Africa is now an established global brand specialising in surgical systems research. SURG-Africa featured in 13 media articles, presented at over 50 scientific conferences and the video explaining the concept of the project was viewed over 20,000 times in just one week.

SURG-Africa significantly increased access to essential and life-saving surgical care for underserved and vulnerable populations of rural Zambia, Malawi and Tanzania. It also made a substantial contribution to the development of surgical information systems in these countries, boosting the confidence and skills of over 350 surgical providers in 31 district hospitals and improving the safety, efficiency and effectiveness of service delivery for the 18m population covered by the project. The team published over 30 research papers documenting benefits of the work delivered by the consortium (see www.surgafrika.eu for stories of change), all in top quartile journals. Over 20 further papers are in preparation.

The SURG-Africa research programme covered different aspects of surgical care delivery in resource-limited settings, from functionality of referral systems to task-shifting as a solution to human resource shortages, surgical quality control practices and patient outcomes, among others. The ultimate goal was 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. Project findings have been disseminated to ministries of health in Malawi, Zambia and Tanzania, providing a blueprint for the governments to follow.

The project adhered to the principles of equity and inclusion with 48% of researchers female, and 40% from the Global South. The SURG-Africa RCSI team has been actively supporting early career researchers (63% of total) by offering opportunities to RCSI students (to-date over 20) as well as collaborating with partners abroad, including supervision of MS students from the University of Zambia (three students) and Maastricht University (five students).

Rooted in equity,
and in collaboration
with our partners, we
create patient-centred,
outcomes-based
global surgery research
and education.



Chiara Pittalis, Senior Researcher, SURG-Africa

From spending a full day trying to cross a lake in searing heat to having our car confiscated, field work for the team during the four years of the SURG-Africa project was often challenging.

Although constrained in the last year of the project due to the pandemic, visits to district hospitals in Malawi, Tanzania and Zambia were critical to understanding the frontline of care in these remote rural areas.

While much international attention is given to finding ways to boost the number of specialist surgical providers in cities, these non-specialist surgical providers in rural areas are often left behind.

SURG-Africa focused on understanding how to improve the care of patients from rural, and often poor, areas and for whom the district hospital may be their only option to obtain life-saving surgery.

These patients included the expectant mothers who have complications while giving birth, the victims of road traffic accidents, the kids fallen from trees or burnt by a hot stove. A 2016 Malawian study estimated that 79% of patients who lost their lives due to probable surgical conditions never received any surgical care.

SURG-Africa has given a voice to a large number of the district clinicians who despite all challenges provide these life-saving services to rural populations. These research efforts have helped to shed light on some of the obstacles to surgical care provision in rural areas. We hope our data can support national decision-makers in devising effective and durable solutions to fill these gaps.



PhD student Bhairavi Sawant conducting evaluation studies of PANIWATER prototype transparent jerrycans in the National Environmental Engineering Research Institute (NEERI) in Nagpur, India, where she has been hosted since the start of the pandemic.

Clean water projects

The restrictions caused by COVID-19 in the past year have slowed down some research activities and limited PANIWATER's dissemination activities. Nevertheless, in our role as coordinators of clean water projects, our team has endeavoured to maintain awareness and continue to improve the water quality to support healthcare and society.

In Bundelkhand, India PANIWATER developed a radio campaign across 150 villages to advocate for safe water handling and drinking water treatment, consisting of twelve radio jingles and one radio drama for broadcasting. The aim was to raise awareness of WASH (Water, Sanitation and Hygiene) with the core message 'safe and secure water handling and storage practices'. Pilot prototypes for all six of the PANIWATER technologies for the removal of contaminants of concern have been successfully manufactured, However, field installation and operation have been delayed by the COVID-19 pandemic.

Additionally, as in-person conferences, exhibitions and communications with stakeholders were all restricted, activities moved online. A key highlight was the cooperation with four sister projects in the EU Green Week webinar to address the topic, 'Reaching Zero Water Pollution in India through Low-cost Innovative Solutions'. The consortium also participated in the European IPR helpdesk webinar on 'Tech Transfer EU-India: How to Successfully Navigate Intellectual Property and Business Challenges', which offered practical tips for doing business in the EU-India cooperation framework, as well as an in-depth look at some essential areas of intellectual property to consider before commercialising R&D achievements in India.

International Health and Tropical Medicine

The Department of International Health and Tropical Medicine provides medical education for all student doctors in RCSI on topics including HIV, malaria and other vectors of disease. Professor Sam McConkey, in his role as Vice-Dean, leads international curriculum development.

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

COVID-19 pandemic response

During the COVID-19 restrictions, our teaching programme was managed and provided remotely.

Department staff, in their clinical roles at the Infectious Disease Department at Beaumont Hospital, continued to monitor the COVID-19 response and attend new admissions.

During 2020, Professor McConkey's expert commentary in the pandemic featured in 2,321 items of national and regional media coverage in Ireland including in print and on television and radio and he contributed to a number of international outlets including *The Guardian*, the BBC and the *New York Times*, and extensively on digital media platforms including Twitter. He also provided COVID-19 briefings to industry groups, sports societies, charities and educational groups.

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

“ I investigated
minimally invasive
treatments for
patients with early
oral cancers ”

Michael Ryan, recipient of the Faculty of Dentistry 2021
Leo Heslin prize



05

Professional
training

Faculty of Dentistry



Professor Albert Leung
Dean, Faculty of Dentistry

The Faculty of Dentistry was founded in 1963 with the core mission of advancing the science, art and practice of dentistry by the promotion of education, study and research. We have approximately 3,500 Fellows, Members, Diplomates and Affiliates globally.

The Faculty offers both postgraduate general dentistry and specialist fellowship examinations. The Faculty provides lecture-based and hands-on courses for dentists undertaking continuing professional development (CPD) and/or structured postgraduate training. The Faculty has longstanding specialist training collaborations with prestigious organisations overseas.

Unprecedented challenges

At the start of the global pandemic, we developed a slimmed-down 'virtual' office with in-house IT support to enable us to work closely as a team within the Faculty and with the RCSI mothership. We strengthened our education governance and utilised our in-house dental education expertise. Our small team has been resilient and innovative in our mission during the unprecedented challenges we experienced.

Faculty highlights

The Faculty expanded our popular virtual learning hub, bespoke lectures, examination preparation, specialty training and CPD programmes. Our internationally recognised examinations were offered online and to the same robust standards. The Faculty is proud to have been able to fulfil our colleagues' continuous

training, assessments and career development requirements throughout the pandemic.

In the past year, there was a more than tenfold increase in the number of candidates for the Diploma of Primary Care Dentistry (DipPCD) examination, and our quality-assured examinations have all been popular. With over 2,000 candidates from 38 countries in five continents sitting our proctored online examinations, we conferred just over 1,000 RCSI qualifications in the last two postgraduate conferrings.

The Faculty delivered the webinar 'Back to School after COVID-19' with eleven Dental Deans from four continents, and 600 participants from 22 countries taking part.

The 2020 Annual Scientific Meeting titled 'Dentistry in the New Decade' was delivered online and interactively to audiences from four continents of the globe.

Using the state-of-the-art RCSI National Surgical and Clinical Skills Centre, the Faculty team delivered our first on-demand asynchronous inverted classroom and flipped learning practical-based programme to an international audience exploring effective and safe Oral Surgery practices in a post-COVID-19 world.

The landmark 2021 Fergal Nally Lecture, 'Pandemics, Past, Present and Future' was delivered by Professor Sam McConkey to an audience of 650 from four continents, and included a lively discussion across the time zones.

Thank you

The Faculty has risen to the challenges it faced during 2020/2021. As Dean, I am extremely grateful for the brilliant teamwork and guidance from the Faculty board, executives, administrative team and colleagues from around the world. We are also very grateful for the unwavering support from our marvellous colleagues at RCSI.

There was a tenfold increase in the number of candidates for the Diploma of Primary Care Dentistry (DipPCD) examination.

Faculty of Radiologists



Dr Peter Kavanagh,
Dean of the Faculty of Radiologists

Due to the COVID-19 pandemic, the past year has been challenging for the Faculty of Radiologists with almost all activities being conducted remotely, and teaching sessions, tutorials and lectures delivered online.

For the first time, interviews as part of the selection process for incoming Radiology and Oncology trainees were conducted remotely. Sittings of the Faculty's three examinations (Part 1/Primary and Part 2a and b Final) were also conducted remotely, with proctoring aided by the use of artificial intelligence tools.

We have been fortunate to be able to use the new surgical training laboratory for the running of our in-person Interventional Radiology skills days, albeit with reduced capacity to comply with safety policies.

Scientific Meetings

The Faculty's four major meetings of the past year - Annual Scientific Meeting (ASM), Irish MRI Meeting (IMRIM), Spring Meeting and Management in Imaging Meeting (MIIM) were held virtually.

In September 2020, the ASM was themed 'Imaging in Infection. COVID-19 and other microbes' with Irish and international speakers delivering excellent talks on COVID-19 and other infections which continue to prevail. The Radiation Oncology component of the meeting was similarly strong with topical sessions on the impact of COVID-19 on Radiation Oncology services, as well as updates on breast cancer, gastrointestinal malignancies, prostate cancer and gynaecological malignancies.

In January 2021, the MRI meeting 'Head to Toe MRI' featured a number of superb presentations. The Spring Meeting took place in April 2021, themed 'Trauma Imaging from Top to Toe'.

International activities

As a member of the Specialty Training Board of the Royal College of Radiologists, London, this role provides important opportunities, in my capacity as Dean, for the exchange of ideas on all training matters.

In Kuwait, the Faculty has negotiated a new three-year contract for our radiology training programme.

Strong links continue to be maintained with the European Society of Radiology (ESR) and European Union of Medical Specialists (UEMS). Dr Adrian Brady (former Dean, 2010-2012), was elected 1st Vice President of ESR for 2021-2022, and will become President of ESR in 2022.

The Faculty was represented at ESR committees by new Board member Dr Mark Knox (Education), Dr John Feeney (Quality, Safety and Standards Committee) and Dr Owen J. O'Connor (Research Committee).

Professor Michael Lee is the outgoing President of the Interventional Radiology division of UEMS.

The Faculty continues to sponsor four scholarships, initiated by former Dean, Professor Dermot Malone, aimed at providing higher training in clinical subspecialty radiology at international centres of excellence. These include fellowships in Massachusetts General Hospital, University of Washington, Seattle, University of Toronto in Canada, and Oxford University in the UK.

Sittings of the Faculty's three examinations were conducted remotely, with proctoring aided by the use of artificial intelligence tools.

Faculty of Nursing and Midwifery



Professor Michael Shannon
Dean, Faculty of Nursing and
Midwifery

Since its establishment in 1974, the Faculty has played a pivotal role in leading and supporting the strategic development of the nursing and midwifery professions. This work continues today and I am delighted to highlight the diversity and the breadth of our work over the past year.

Enhanced learning through digital technology

The Faculty has scoped and designed a Continuing Professional Development (mCPD) Application and a request for proposal (RFP) has been issued.

We have developed and piloted a Credentialed, Competencies, Capabilities and Skills Passport solution for HR Health resource management.

Our ePortfolio has been developed to support Fellowship, Membership and other programme assessment. Sixty-one nurses and midwives were conferred with Fellowship in December and a Membership Award has been launched.

During the year more than 4,400 nurses and midwives engaged in 35 Faculty webinars and events. The Faculty also engaged in credentialing and revalidation programmes delivered to healthcare industry representatives.

Leading impactful research

The 40th Annual International Nursing and Midwifery Research and Education Conference, 'Meeting the Needs of Modern Healthcare' was held in February. Global leaders discussed workforce planning, service

redesign, and recovery and wellness in a COVID-19 world, with over 1,200 delegates representing 50 countries.

Other research activity included leading the submission of a European Centre of Research Excellence Erasmus+ proposal, 'An International Community of Inquiry PLATform to eNhanCe the DIGItal knowledge, skills and liTErACy of Healthcare educators (i-CAN-DigiTeach)'. The Faculty partnered on the International Network for Health Workforce Education, Erasmus+ proposal on Digital Pedagogy, titled MIObesityCareEU. European projects in progress include work on transitioning to newly qualified roles, accreditation of CPD, social media and CPD and Long Term Care CPD Needs.

On behalf of the Mental Health Commission, the Faculty conducted a review of its Quality Framework and a review of the revision of the rules and codes of practices relating to the use of restrictive practices.

Supporting healthcare and societal well-being

2,061 applicants from 43 countries completed the Overseas Aptitude Test to register as a nurse in Ireland up to 31 May 2021. Following a Government request, the Faculty facilitated a capacity increase of over 90% during the last year, supporting workforce demands nationally.

A Centre for Nursing and Midwifery Advancement for the RCSI Hospital Group implementation plan has been developed, fostering collaboration on CPD, clinical research, CQI, leadership and innovation. The Faculty delivered a Nightingale Challenge Emerging Leaders Programme and facilitated the DAISY Foundation Compassion Awards.

International activities included collaborating with RCSI/COSECSA and the East, Central, and Southern African College of Nursing to develop a needs-based perioperative nursing programme in the region. The Faculty inducted into Sigma International (Irish Chapter) during the year and is collaborating with WHO Copenhagen and the Geneva-European Nursing Roadmap.

Following a Government request, the Faculty facilitated a capacity increase of over 90% during the last year, supporting workforce demands nationally.

Faculty of Sports and Exercise Medicine (RCPI and RCSI)

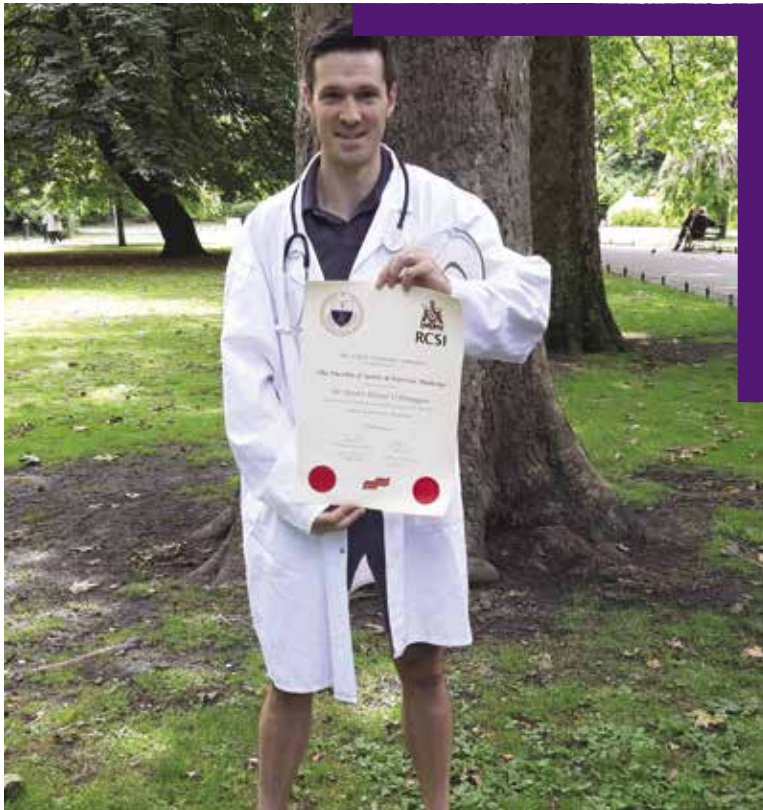


Dr Philip Carolan
Dean of the Faculty of Sports and
Exercise Medicine (RCPI and RCSI)

It has been a very challenging year for the board, committees, and staff of the Faculty of Sports and Exercise Medicine (FSEM) due to ongoing COVID-19 restrictions. We had to rethink everything we did, introduce new processes, turn the academic calendar upside-down, and move to a virtual world. The constant was that education and training remained the key focus of the Faculty.

CPD opportunities

The Faculty moved all of its regular Continuing Professional Development (CPD) activities online for the foreseeable future, delivering five webinars (in the absence of face-to-face SEMSEP modules), four journal clubs, and our spring study day with our colleagues from Ulster University, within the last twelve months. However, ASC 2020 was postponed to September 2021, to facilitate logistics around the organising of such a large event, and we look forward to holding our first virtual ASC 'Exercise is Medicine' this autumn.



Dr Stuart O'Flanagan, the first trainee due to complete Higher Specialist Training Programme in Sports and Exercise Medicine, with the formal Certificate of Completion of Specialty Training (CCST) to be awarded in July 2021.

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

This was quite a difficult year for our trainees, for whom involvement with elite sports and travelling abroad with the teams for away games is an integral part of the SEM curriculum. We partnered with our colleagues in the Australasian College of Sport and Exercise Physicians (ACSEP) last summer to give the trainees access to a number of SEM e-learning modules, and our Fellows and Honorary Fellows volunteered to give our trainees additional weekly tutorials to make up for the lack of 'team' activities. We are extremely thankful for their support and contribution, which complemented the training provided on-site as part of the trainees' SpR rotations.

FSEM website

In March 2021, we launched phase 2 of our new website (www.fsem.ie), which saw the move of our Fellows and Members' database to the online platform, giving our Fellows and Members access to a private part of the site thanks to individual login details. We also regrouped all their benefits to the platform in their personal accounts, such as access to their BJSM subscription, FSEM newsletters, discounts with our partner RCSI Travel, and we look forward to further benefits being introduced over the coming years.

RCSI Charter Day

In February 2021, the Faculty was delighted to take part in RCSI Charter Week 2021 as part of a virtual parallel session, and we look forward to presenting more SEM topics to the wider RCSI community at future Charter Day events.

Irish Institute of Pharmacy



Dr Catriona Bradley
Executive Director, Irish Institute of Pharmacy

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

ePortfolio review

Each year, approximately 20% of registered pharmacists are required to participate in an ePortfolio Review process. In January 2021, 1,328 pharmacists participated in ePortfolio review, with 96.2% receiving an outcome of 'standard met', indicating the profession's commitment to CPD.

To mark the completion of the first five-year cycle of ePortfolio Review, the IOP hosted a dissemination event in June 2021 which reflected on the role of CPD in patient care, in the delivery of health services, and in pharmacy workforce development.

Training programmes and information resources

Over the past twelve months, the IOP continued to support pharmacy practice through the delivery of a range of training programmes, including 20 accredited online training programmes.

In March 2021, the IOP launched a Mentoring Pilot Programme to empower newly qualified pharmacists to take control of their CPD and realise the benefits of

reflective practice. Learnings from this will be used to inform a larger mentoring programme, due to launch in autumn 2021.

The IOP recognises the immense effort by the pharmacy profession in maintaining frontline services during COVID-19. Initiatives developed by the IOP to support pharmacists during this time were the Return to Practice resource, to support pharmacists returning to the Register under Section 77 Restoration, and the COVID Hub, a repository of up-to-date and comprehensive information on COVID-19 for pharmacists.

Engagement activities

Over the past twelve months, the IOP 'In conversation with...' webinar series continued with topics ranging from personal development and well-being, to COVID-19-specific issues. Up to 1,100 pharmacists attended each webinar, and many others viewed recordings afterwards.

In October 2020, the IOP held its annual Peer Support Pharmacist (PSP) event. Fifty pharmacists attended the two-hour webinar which included advanced training on 'Social Media for Pharmacists' delivered by Marie Ennis O'Connor.

Launched in June 2021, and developed in collaboration with the IOP Mental Health Ambassador Network, and IOP Mental Health working group, a ten-episode podcast 'The Resilient Pharmacist' hosted by Catriona Bradley, features stories of resilience.

The IOP was honoured to take part in Charter Week in February 2021. The virtual session 'Developing Resilience in Pharmacy – a Personal, Professional or System issue?' was chaired by Catriona Bradley.

In June 2021, The 13th International LLLP conference, hosted virtually by the IOP and RCSI, included six plenary sessions and 23 collaborative workshops, and was attended by over 250 delegates across 13 countries.

IOP launched a Mentoring Pilot Programme to empower newly-qualified pharmacists to take control of their CPD and realise the benefits of reflective practice.





“ I enhanced my leadership skills by being actively involved in the decision-making process of evolving the delivery of teaching and learning at the University. ”

Fathi Moustafa, Senior Cycle 1 student,
School of Medicine, RCSI Bahrain



06

International
campuses

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 twelve months.

RCSI Bahrain

RCSI Bahrain welcomes students and staff of more than 50 nationalities. This international outlook shapes our academic excellence, as well as our global community of alumni. Our focus on clinical and patient-centred research contributes to addressing key regional, national and global health challenges.

Irish Medical Council virtual visit

RCSI Bahrain always strives to achieve the highest standards of teaching and learning and periodically undertakes intensive internal and external quality reviews. In March 2021, a comprehensive virtual visit with the Irish Medical Council was held. The Medical Council team, led by Professor Mary O'Sullivan, Chairperson of the National Council for Curriculum and Assessment (NCCA) and comprising of Council and external members, met with the Executive Management team. As part of the undergraduate medicine programme re-accreditation process, the review team also met with the School of Medicine staff, students (the Student Council and students from

all years/cycles), interns and training leads and clinical lecturers at our partner hospitals. The report from the visit is awaited.

RCSI Bahrain graduates exempted from PLAB examinations

RCSI Bahrain received approval from the General Medical Council (GMC) in the UK to allow medical graduates apply for registration to practice in the UK without having to undertake the Professional and Linguistic Assessments Board (PLAB) licensing examinations. This significant milestone will ease the process of accessing internship and postgraduate training opportunities for all RCSI Bahrain medical graduates in the UK, regardless of nationality. RCSI Bahrain graduates will only have to apply for registration with the GMC through the Relevant European Qualification (REQ) pathway. RCSI Bahrain currently has 129 graduates (of which 30 are Bahraini Nationals) working and training in the UK.



RCSI Bahrain nursing student administers a vaccine to a member of the community as part of the the national vaccination programme.



Biomolecular Laboratory at the RCSI Bahrain Research Centre

Biomolecular and Clinical Trial Research Centre

The RCSI Bahrain Biomolecular and Clinical Trial Research Centre in partnership with King Hamad University Hospital is on track for official opening in early July 2021. The Research Centre promotes teaching and research focused on the healthcare priorities of Bahrain, with the mission to specifically address prevalent diseases such as diabetes and obesity, and conditions such as metabolic syndrome. One area of expertise of the centre is the delivery of clinical trials to the highest of international standards, thanks to the RCSI team of experts based in Bahrain

and Dublin. Recently authorised in Bahrain, and another focus of the Centre's research, are clinical trials in stem cell technology, for which three research groups will be dedicated: new stem cell, pancreatic islet cell, and tissue regeneration.

According to Professor Stephen Atkin, Head of Postgraduate Studies and Research, RCSI Bahrain: "Our new international clinical and translational Research Centre will foster novel collaborative research opportunities with RCSI in Dublin and support RCSI's contribution to global research and the advancement of human health."

Nursing students' participation in national vaccination programme

In support of Bahrain's National Vaccination campaign, third and fourth year Nursing undergraduate students participated at different health centres to vaccinate members of the community.

Nursing Student selected as ICN Student Steering Group member

A fourth year Bahraini Nursing undergraduate student, Ms Hawra Hasan, was selected by the International Council of Nurses (ICN) as part of the Nursing Student Steering Group to represent the Eastern Mediterranean Regional Office (EMRO) region. Ms Hawan will be working with nursing students from different regions of the world to increase student representation and engagement within ICN and to enhance the nursing student and youth influence on global health and nursing policy dialogue.

This significant milestone will ease the process of accessing internship and postgraduate training opportunities for all RCSI Bahrain medical graduates in the UK



A clinical trial taking place at the RCSI Bahrain Research Centre.

RCSI & UCD Malaysia Campus (RUMC)

RUMC has reached a significant milestone of being 25 years old this year. RUMC admitted its first cohort of students in 1996, while it was still named Penang Medical College (PMC). PMC was established by RCSI and UCD with the objective of delivering quality medical education to graduates from Malaysia and the surrounding region. The medical degree course is still conducted on a joint basis between Dublin and Penang, the pre-clinical component being delivered at either UCD or RCSI and the clinical course being delivered in Penang. The advantage of this arrangement is that it combines cost efficiency with delivery of an international-standard medical education.

Penang Medical College changed its name to RCSI & UCD Malaysia Campus in 2018 on being granted

Foreign University Branch Campus status by the Malaysian Ministry of Higher Education. This year sees RUMC celebrating its silver anniversary, although in somewhat subdued circumstances.

Class of 2020 and 2021 graduation

Due to the COVID-19 pandemic, graduation of the Class of 2020 was delayed until September 2020. This was followed not long after by the graduation of the Class of 2021 in May 2021. It was notable that in our 25th year, the 2,000th graduate of RUMC was conferred, making this a double landmark year. In addition, one of the first students to attend RUMC on scholarship, Dr Melissa Mae Gabriel, graduated as valedictorian.

Research

Cochrane Malaysia operates as a network of sites around Malaysia, and we are proud that the coordinating site is based at RUMC Malaysia Campus. A notable achievement this year was the decision by the Ministry of Health to make the Cochrane Library freely available to everyone in Malaysia. This has led to RUMC hosting a series of workshops run for Malaysian doctors on how to use the Cochrane Library. RUMC has also increased its research publication output over this year.

COVID-19

We have been actively engaged in the efforts to manage the pandemic in Penang with staff and students helping out in vaccination centres and community projects. The University provided extra equipment for State Health, including the recent donation of a Reverse Osmosis (RO) machine.

In our 25th year, the 2,000th graduate of RUMC was conferred, making this a double landmark year.

70 postgraduate scholars were conferred, bringing the total number of graduates from RCSI Dubai to 874.

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, and the Senior Cycle (SC) 2 class recently completed their final exams.

At the end of the academic year, Professor Mike Larvin retired to the UK after successfully leading the PU-RCSI school of Medicine as Dean for four years. Associate Professor Karen Morgan was appointed Director of the PU-RCSI Medical Programme and Professor Arnie Hill was appointed Visiting Dean.

Fifth convocation

The Class of 2020 was the school's fifth graduating class. A virtual graduation was held on 17 November to celebrate their achievements.

Research

Despite continuing restrictions, the PU-RCSI faculty and students have continued their involvement in research. SC1 student Santralega Lingam was sole presenter from Malaysia amongst 200 speakers from 20 countries at the UK Physiological Society's 'Future Physiology' virtual conference in July 2020. She presented research from her summer 2019 RCSI elective.

School staff achieved 51 peer-reviewed publications, with 24 of our academic staff maintaining active research profiles. The School's top ten active researchers shared h-indices of 9 to 43 with individual citations of 303 to 11,457. Staff published 13 of the University's fortnightly 'Health with Perdana' public educational articles in the 'Star' national newspaper's Health Supplement.

PU-RCSI staff and COVID-19

Many faculty members and students remain heavily involved in COVID-19 relief efforts in Malaysia. Psychology and Behavioural Sciences faculty members have been involved in providing psychological support services and our students have been volunteering at vaccination centres nationwide.

RCSI Dubai

The RCSI Graduate School of Healthcare Management in Dubai (formerly RCSI Institute of Leadership) welcomed over 100 new scholars onto masters and diploma programmes in Healthcare Management, Quality and Safety, Leadership and Innovation and Clinical Leadership, during the year.

At the conferring ceremony in November 2020, 70 postgraduate scholars were conferred, bringing the total number of graduates from RCSI Dubai to 874. A tailored seven-month executive development programme on 'Leadership and Innovation for Women in Healthcare' is being delivered for the second year in a row for Johnson & Johnson. Two cohorts are being delivered in parallel attracting 46 emerging female leaders based across Africa, Middle East and Turkey.

An executive series of development programmes with the UAE's largest healthcare network, SEHA, is also being delivered. SEHA is the largest employer of RCSI graduates in the UAE. The delivery of the first two development programmes 'Coaching for Wellness in the Workplace' and 'Leading Transformation Change and in Healthcare' has been completed with participation from 88 SEHA learners.

COVID-19 has highlighted the need for learning interventions for healthcare professionals to be more accessible and flexible and this has precipitated the transition of all programmes to a digital-plus delivery model led out of Dublin. RCSI Dubai will expand as a business and recruitment hub, supporting Gulf Cooperation Council (GCC) and international growth. This move is an essential enabler for the development of a global learning community, supporting the delivery of better healthcare worldwide.

“ Studying
medicine and
completing my MD
at RCSI empowered
me to become a
leader in healthcare. ”

Dr Gozie Offiah, Medicine, Class of 2005, MD Class of 2011;
Clinical Lead for the National Intern Training Programme,
Medical Intern Unit, NDTP, HSE; Senior Lecturer and Director
of Curriculum - THEP Implementation, RCSI



07

Enabling
our vision

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, including the SCONUL Library Design Award (Small Libraries Category) and Irish Laboratory Awards (Education Laboratory of the Year).

Our Dublin campus has seen other significant investment. The 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's 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 the €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, delayed due to the COVID-19 pandemic, now planned to commence towards the end of 2021. 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 is for the campus development to remain aligned with our commitment to provide 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, a redevelopment of the Ardilaun Centre.

Information technology



Justin Ralph
Chief Technology Officer

RCSI Information Technology prioritises serving the current and future needs of our students, staff, researchers and other key stakeholders.

New students experienced a transformed digital welcome with remote access to RCSI IT services, instructions and video guides, and a dedicated on-boarding support service. Combined with delivery of student laptops during lockdown, this meant that new students were digitally ready to commence their new course. Enhanced IT support services were provided throughout the year to ensure that students and staff across campuses and off-site could successfully use RCSI digital solutions.

A new CRM system enhanced our student recruitment and marketing functions, and enabled RCSI to strengthen national and international collaborations.

A new integration hub was developed to enable RCSI applications connect with one another resulting in more efficient operation processes to set students up in RCSI's virtual learning platform. This new hub will enable further efficiencies to be achieved in the future. Organisational improvements were achieved through implementation of a new IT purchasing portal, streamlining of IT procurement operations, and process redesign of system access management in conjunction with HR.

A key investment was made in building an IT team to deliver high-quality digital-first content in a scalable fashion. A full programme was completed for Research Methods and a significantly increased volume of work initiated for the Graduate School of Healthcare Management, School of Nursing and Midwifery, and School of Pharmacy and Biomolecular Sciences. The team will be integrated into the new RCSI Online initiative due to launch in 2022.

IT security is embedded within the management of applications and infrastructure, with continually planned cycles of cyber security reviews and action planning. We recognise the importance of user education for IT security literacy and have rolled out new IT security awareness training in conjunction with HR. This training complements the extensive workshops, training and support guides that IT delivers to upskill students and staff on all aspects of IT throughout the year. To ensure staff and students are getting the benefits of new and improved system features, and to ensure that RCSI IT systems and infrastructure are supported and secure, IT continues to maintain and upgrade RCSI applications and infrastructure.

RCSI's ambition to deliver a transformative education and learning experience for students is the driver for investment in current projects for digital solutions across assessment, feedback and clinical placements. New clinical placement and real-time assessment tools will transform how clinicians, students and staff experience life in the healthcare education setting, providing a leap in capability and ease of use for our clinicians, students and staff.

RCSI's ambition to deliver a transformative education and learning experience for students is the driver for investment in current projects for digital solutions across assessment, feedback and clinical placements.

Development – Alumni Relations, Fellows and Members



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

In a year that demanded resilience, responsiveness and ongoing evolution, the Development, Alumni Relations, Fellows and Members teams provided consistent and meaningful engagement with RCSI's external stakeholders, continuing to deepen relationships with our committed communities.

RCSI TOMORROW Campaign

In the early months of 2020, the RCSI Development Team re-evaluated the RCSI TOMORROW campaign priorities and adapted strategies to help sustain fundraising efforts. Our main objective was to keep stakeholders informed and engaged during this fast-changing time. Amid uncertainty, the role for RCSI as a dedicated health sciences university within our community was clear. We have stayed the course and our efforts have demonstrated the confidence in our programmes and relevance to donors. The campaign has raised €26 million to date and a brief overview of campaign activity follows:

Creating healthcare leaders of tomorrow

RCSI committed to ensuring that COVID-19 would not prevent students from gaining the world-class educational experience that RCSI prides itself on. We launched the #RCSIttogether for Our Students' Future Campaign and doubled funding for the Student Hardship Fund. In addition, our generous donors helped fund 34 students across Aim High, Consilio Manuque, Kiran Pathak, International Medicine and Moira O'Brien Sports Scholarships.

In December 2020, 1,500 students who stayed in Dublin throughout the holidays were supported through the RCSI #FestiveNightIn appeal, each receiving a festive stocking to help spread Christmas magic and bring cheer during the holiday season.

Building healthier societies

In 2020, with the support of philanthropic funding, RCSI launched the Centre for Positive Psychology and Health. Led by Professor Ciaran O'Boyle, the Centre, the first of its kind globally, will apply the scientific principles of positive psychology to enhance the health and well-being of people all over the world.

Advancing breakthrough research

In 2020, science-based technology company 3M awarded a significant philanthropic research grant to RCSI to advance scientific knowledge in the global response to COVID-19. The research focused on two important areas: greater understanding of the impact of micro clots, and the development of new treatment regimes to aid recovery.

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

Apart yet together: uniting 26,000 alumni in 94 countries

RCSI is acutely aware of the impact of the pandemic on alumni. Alumni have felt the effects of COVID-19 in their roles as clinicians, researchers and healthcare administrators. However, despite the challenges, the pandemic also sparked a desire among alumni to connect with RCSI, with former classmates and with colleagues.

In August 2020, over 1,600 alumni tuned in to participate in the annual Alumni Reunion which took place virtually. In autumn 2020, six inspirational recipients of the 2020 Alumni Awards were celebrated.

Alumni engagement continued late into 2020 and early 2021 with the organisation of the inaugural Alumni Townhall in December and virtual 'receptions' for the Schools of Physiotherapy and Pharmacy in January, attended by almost 400 alumni. An Alumni Organising Committee was recruited to lead the North American Alumni Engagement Series, which will continue into autumn 2021.

The 2021 Alumni Magazine featured more than 80 alumni, reflecting the emphasis on sharing alumni news and exchanging experiences. Weekly eNewsletters are sent to 13,700 alumni.

RCSI now ranks fifth in the UK and Ireland Survey of Alumni Engagement, a position we aim to build on in the future.

FELLOWS AND MEMBERS

Expanding the RCSI Fellowship and Membership community

To expand the community and develop the pathway for membership, the Fellows and Members team introduced an Affiliate Membership category earlier this year. Affiliate Membership is available to medical students with an interest in pursuing a career in

surgery and surgical trainees prior to the successful completion of the MRCS Part B exam.

In addition, RCSI celebrated the success of 95 new Fellows and Members admitted in absentia in virtual ceremonies in December 2020 and welcomed a further 75 to the College in July 2021.

Our community of surgeons now totals 9,600 Fellows and Members across 83 countries.

Connecting our surgical community

Throughout the year, the Fellows and Members team continued to engage and inform Fellows and Members by providing ten Surgical Bulletin eNewsletters, six editions of *The Surgeon* journal and two issues of *Surgeons Scope*, the exclusive magazine for Fellows and Members. In addition, monthly international webinars were held in North America, United Kingdom, Hong Kong, Malaysia, Singapore, Bahrain, Dubai, Saudi Arabia and Pakistan to regularly check in and demonstrate support.

Celebrating: Charter Goes Global

The 2021 Charter Day Meeting, themed 'Charter Goes Global', was a hugely successful four-day programme of clinical and scientific discourse delivered entirely online. The programme featured 120 speakers from five continents reaching an audience of 4,000 Fellows and Members across 50 countries. Such was the impact of the 2021 programme, a similar and if possible hybrid format will be delivered again in 2022.



At the announcement of a 3M philanthropic grant to RCSI in support of COVID-19 research were (l-r) Prof. Fergal O'Brien, Director of Research and Innovation; Prof. Steven Kerrigan; June Ryan, 3M Ireland Country Leader; Prof. James O'Donnell; Keith O'Connor, 3M Head of Business Development; Áine Gibbons, Director of Development and Alumni Relations; and Chris Lessing, Medical Affairs Leader for 3M+KCI.

International Engagement



Abi Kelly
Director of International Engagement
and External Relations

International engagement is central to the RCSI strategy for education and research excellence and our impact on society.

As one of the world's truly global education institutions, RCSI internationalises on many levels through our branch campuses, international students and faculty, staff and student mobility initiatives, international events, collaborations, alliances and partnerships. Our focus is also on internationalisation of the curriculum, summer schools, global citizenship and cultural diversity.

This year we published our new peer-reviewed International Engagement Strategy to expand further our global footprint and our research and education partnerships.

Capitalising on our new university status, this new strategy signals RCSI's willingness to engage with universities that hold similar values of respect, collaboration, scholarship and innovation. This includes

joining the European University Association (EUA), which has 800 members in 48 countries within wider Europe, and also increasing the number of exchange partnerships under the Erasmus+ programme to support staff and student mobility. RCSI currently has 23 Erasmus agreements with separate universities and our aim is to increase these over the next three years with key strategic universities.

A dedicated resource and funding is now available for all staff in RCSI to encourage and support international collaborations. This includes analysis of universities working in complementary fields of education and research, with the aim of fostering reciprocal partnerships and alliances. The RCSI Collaborate Initiative was introduced in the year to support our academics to establish new networks and attend virtual conferences which have an international focus.

We also staged a number of high-profile online events during the year which attracted international audiences and speakers to discuss the global health challenges of our time. This included the launch of the Institute of Global Surgery which reached over 500,000 people through the accompanying communications campaign. A new website www.rcsi.com/international which identifies our current global connections was launched to demonstrate our international outlook and to invite potential collaborators to make contact.

The global higher education landscape is full of opportunity. Ireland's national strategy for Higher Education to 2030, supported by national funding initiatives, recognises the significance of global collaboration both within the university sector and through engagement with wider society. To advance improvements in global health and well-being, RCSI actively seeks partnerships in all that we do.

We published our new peer-reviewed International Engagement Strategy to expand further our global footprint and our research and education partnerships.

Human Resources



Barry Holmes
Director of Human Resources

Understanding and responding to new ways of working enables us to create the best possible environment for our workforce. The Human Resources (HR) team's priority is to support and engage staff, enhance leadership and management capability, support organisational development and promote a positive work environment and culture.

Since the start of the COVID-19 pandemic, the HR team's main focus has been to support the health, well-being and safety of staff and students in both remote and on-site environments. RCSI's Business Continuity Workgroup (BCP), sponsored and chaired by HR Director, Barry Holmes, has worked closely with the Estates, IT, ORI and Surgical Affairs teams to support all staff in both settings and also on the coordination and implementation of a phased return to campus in advance of the new academic year.

The HR partners have engaged with managers on the design and roll-out of new working structures to enable a smooth transition to remote/hybrid working, utilising team reflection processes and other tools to capture key organisational learnings from the pandemic to help mature more effective ways of working throughout RCSI.

HR further developed the #RCSIttogether brand and published bi-weekly HR bulletins sharing key messages to support the positive culture in RCSI. In successive quarterly Pulse surveys, there has been consistently high positive feedback in respect of communications issued by HR. Individual development supports including 1:1 coaching and mentoring, psychometric profiling, 360° assessment and feedback are ongoing and over 100 staff have been involved in Appreciative Inquiry workshops — a strengths-based approach to organisational change which explored 'RCSI at our Best'.

It was our sixth year to participate in the hugely popular Aurora Women's Leadership Development Programme with eleven RCSI staff completing the programme. Engagement with the virtual classroom offering across the University continued to rise with over 650 participant days on virtual courses and workshops with satisfaction levels in the 90%+ level.

There was a sharp uptake in the use of the new online PDP system this year, with 92% of staff submitting their PDP objectives for 2021. Staff can easily align their yearly objectives to RCSI mission and strategic plans. HR developed the 'Welcome Buddy' initiative where 40 staff volunteers were recruited and trained to support 150 new incoming international students. HR also contributed to the design and delivery of the first Student Leadership Development programme, an important StEP initiative. In addition to this, HR were delighted to launch a new University-wide campaign called #thankacolleague, with staff encouraged to post messages of thanks to their colleagues. To date the campaign has reached over 1,000 employee interactions on Workvivo, our internal engagement platform.

Finally, through the incredible work Inspire does on the IBEC 'Keep Well Mark', RCSI was included in the *Business and Finance* Top 100 Companies Leading in Wellbeing 2021 Index.

100 staff have been involved in Appreciative Inquiry workshops - a strengths-based approach to organisational change which explored 'RCSI at our Best'.

Equality, Diversity and Inclusion

RCSI is committed to embedding equality, diversity and inclusion (EDI) across everything we do. This commitment ensures that we can all work and learn in an environment which is defined by dignity and respect, and that everyone in RCSI is treated fairly regardless of age, civil status, disability, family status, gender, membership of the Traveller community, race, religion, sexual orientation, or socio-economic status.

In 2020-2021, RCSI received three Athena SWAN Bronze School/departmental awards in recognition of our commitment to embed gender equality at RCSI: The Department of Anatomy and Regenerative Medicine; the School of Pharmacy and Biomolecular Sciences; and the Department of Physiology and Medical Physics were all recipients.

The EDI Unit was awarded €110,00 in grant funding including an award under the Higher Education Authority (HEA) Gender Equality Enhancement Fund in partnership with University College Cork (UCC) and Technological University (TU) Dublin for the LIBRA (balance) project. LIBRA seeks to address biases and accelerate culture change through use of simulation technology.

Built on RCSI's commitment to encouraging staff-student partnership and engagement, we established three new EDI Forums where student representation and 'lived experiences' are encouraged: Access for All; Ending Sexual Violence, Supporting Survivors and

Promoting Consent (ESP); and Race Equality.

RCSI contributed to the development of the first national Race Equality in Higher Education (HE) survey in Ireland, issued in November 2020. A dedicated race equality action plan was launched in 2021, following an external review by Pavee Point and Race Equality Charter Award holders in the UK.

We partnered and supported a number of student-driven initiatives including an Anti-Racism Reading Group pilot programme for Graduate Entry Medicine (GEM) students; REPRESENT – a project which seeks to increase representation of dermatological dark skin tone presentations in the medical curriculum; and the Transformative Learning Experience (TLE) project aimed at incorporating EDI among clinical case-based teaching content.

In line with the Government's Consent Framework (2019), we published a three-year ESP Action Plan. We partnered with NUI Galway to develop a bespoke Diversification of Active*Consent programme, the Dublin Rape Crisis Centre to develop further training to frontline support staff and student leaders, in addition to our Bystander Intervention and Receiving a Disclosure trainings.

In May 2021, we launched the EDI in Higher Education learning tool, a comprehensive foundation course for staff developed in partnership with the Irish University Association (IUA) and reviewed by the Irish Human Rights and Equality Commission, as well as a number of civil society partners.

Our six staff networks successfully pivoted online to deliver a hugely successful Ensuring Women's Voices Are Heard campaign, which launched on International Women's Day; Pride and Positive Ageing Week celebrations; International Men's Day and World AIDS Day. We also welcomed guest speakers and EDI advocates including Adam Harris, Emma Dabiri, Dearbhail McDonald, Dr Ruth Freeman, Noelle O'Reilly, Adam Shanley, Dr Vanessa Lacey, Aranee Manoharan and Dr Karl Neff.



In June the Race Equality Forum hosted author Emma Dabiri for an 'In Conversation with' event centred around her second book *What White People Can Do Next: from Allyship to Coalition* which discusses the historical construction of the concept of race, analyses the current anti-racist movement and reflects on how we can build coalitions for more inclusive communities.

Finance



Jennifer Cullinane
Director of Finance

RCSI has been at the forefront of healthcare education and training since its establishment under Royal Charter in 1784 as the national training body for surgery in Ireland.

In December 2019, RCSI was granted university status as RCSI University of Medicine and Health Sciences, having received designation as a statutory degree-awarding body in 2010. RCSI is also a recognised college of the National University of Ireland (NUI). Today, RCSI as an independent, not-for-profit health sciences institution offers education and training programmes at undergraduate, postgraduate and professional training levels. Medical programmes are accredited by various bodies including Quality and Qualifications Ireland (QQI) and the Irish Medical Council.

RCSI is currently ranked in the top 250 Universities worldwide in the Times Higher Education (THE) World University Rankings, and joint second for Good Health & Well-Being in the THE Impact Rankings under the United Nations Sustainable Development Goals.

Key activities

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

Although headquartered in Ireland, RCSI’s education, training and research activity span three continents, Europe, Asia/Middle East, and Africa. RCSI operates three medical schools overseas, one in Bahrain and two in Malaysia (Perdana and Penang), and a range of healthcare management programmes. Postgraduate professional training programmes extend beyond those run in Ireland and include surgical training activities supporting the College of Surgeons East, Central and Southern Africa (COSECSA), in co-operation with Irish Aid. Partnership is a key tenet of RCSI’s delivery, encompassing collaboration with other Higher Education Institutions (HEI) through research studies, outreach programmes with local communities and clinical placements, including the academic partnership with the RCSI Hospital Group.

RCSI contributes to the building of the reputation of Ireland as an international centre for education as evidenced by its world university rankings, while making a significant contribution to local economies each year. RCSI employs over 1,200 people in the country and we estimate that close to 2,000 additional indirect jobs across the Irish economy are supported through expenditure by RCSI’s staff and students.

Financial management

As the governing body of the institution, the RCSI Council has responsibility for the University’s financial affairs with certain functions delegated to the Finance and Audit and Risk Committees. Overall the organisation’s financial goal is to ensure robust financial stewardship, in an increasingly competitive market environment.

RCSI operates a primarily self-funding model with a small percentage of revenue derived from public sources. In line with its charitable remit, all surpluses earned are reinvested for the furtherance of its education and research objectives. Annually there is a strong focus on generating a cash surplus to enable the organisation meet its commitments, both current and capital in nature, including funding day-to-day operations, working capital needs, debt servicing and campus infrastructure investment. Significant capital expenditure projects are funded through an appropriate balance of debt and cash reserves. A level of reserves are maintained to provide for continued investment in RCSI’s market offerings and to enable responsiveness to general market volatility.

Review of the year to 30 September 2020

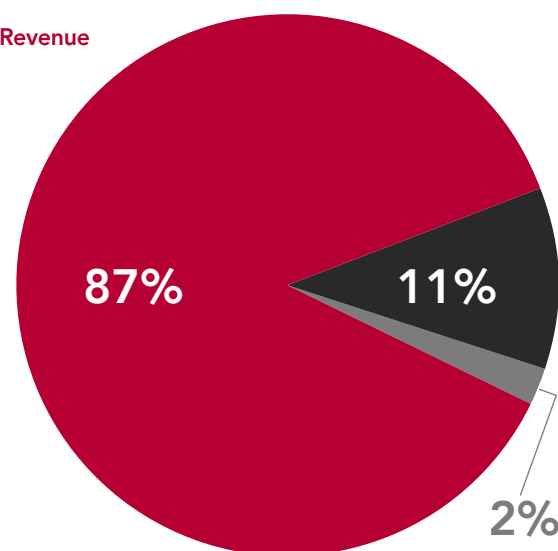
Overall, the University’s financial performance for the year ended 30 September 2020 remained broadly in line with the prior year despite the pandemic and ensuing difficult trading environment.

The majority of revenue continues to be generated from those activities that are core to the RCSI’s mission. These include degree-awarding activities,

Consolidated statement of income and expenditure

	2020	2019
	€m	€m
Revenue	201	197
Operating costs	(166)	(164)
Depreciation	(15)	(8)
Interest (net)	(2)	(2)
Operating surplus	18	23
Unrealised non-operating (loss)/gain	3	(4)
Net surplus for financial year	21	19

professional postgraduate training and research programmes. In addition, a valuable source of ancillary revenue is derived from its investment portfolio. Public funding sources account for 15% of total revenue. During the year, revenues grew by 2%, largely due to steady growth in education programme activity including modest fee increases. Student numbers* stand at over 4,500 with representation from over 69 countries. Over half of all students attending RCSI do so under a sponsorship agreement or other supports.

Revenue

87% Education and training programmes

11% Externally funded research

2% Investment

Operating costs increased by 5% year on year, mainly due to the continued roll-out of investment initiatives under the RCSI strategic plan and expenditure related to the delivery of operations in line with pandemic safety protocols. Despite the adversity, our students and staff embraced digital innovation made possible from strategic investments over the last number of years, including measures to counter



*In Ireland

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

cyber risk. As a higher education institution, staff-related costs account for the majority of the operating expenditure. To ensure effective use of resources, operational delivery is underpinned by a “value for money” and continual improvement agenda, together with a sustainable environmental focus. A review of carrying value of assets in the year resulted in an increased depreciation charge of €15m. Unrealised non-operating net surplus/deficits on year end re-measurements recognised in the Consolidated Statement of Income and Expenditure account include currency impacts and investment property/pension scheme revaluations. The defined benefit pension scheme deficit stood at €18m as measured under accounting standards while the funding plan agreed with the Irish Pensions Board following a 2012 restructure, remains broadly on track.

In the year, an operating cash surplus equivalent to 5% of revenue was generated, having met commitments relating to debt service and capital expenditure plans. Tight management of cash reserves continued to be a focus, along with minimising the effects of a negative interest environment.

Balance sheet

Overall, RCSI’s net asset value increased by 6% arising from a strong financial performance and an improved pension deficit, offset by property revaluations. Expenditure on the capital programme amounted to €12m relating mainly to digital transformation and campus infrastructure investments. Loan refinancing was successfully concluded during the year.

RCSI has a number of investments through subsidiary structures in support of its mission. In Ireland these include a clinical research centre at Beaumont Hospital (Clinical Technologies & Research Development Ltd), a property management services company (West Green Management Company Ltd) and a

Consolidated balance sheet

	2020 €m	2019 €m
Non-current assets	389	394
Current assets	261	251
Total assets	650	645
Current liabilities	129	200
Non-current liabilities	174	118
Total liabilities	303	318
Net assets	347	327

travel company (RCSI Travel DAC) to support the delivery of programmes overseas. RCSI operates a medical university in Bahrain, and a joint venture with University College Dublin in Malaysia (RCSI-UCD Malaysia Campus, formerly known as Penang Medical College).

Principal risks and uncertainties facing RCSI COVID-19, cyber security and market competition continue to be the principal risks facing RCSI. The organisation’s risk management framework enables risk monitoring and the implementation of risk mitigation measures. In relation to the pandemic, RCSI adapted to delivering socially-distanced digitally-engaged learning in line with safety protocols and as appropriate a seamless transition to remote working.

Conclusion

In what has been an unprecedented year, I would like to acknowledge the significant team efforts of all staff and students across the organisation. I would in particular like to commend my finance and senior management colleagues for their commitment over the past year, to enable continued delivery of RCSI’s mission of “leading the world to better health”, in a financially sustainable manner.

As we look forward to RCSI’s post-pandemic future, we remain mindful of the need for healthcare leaders and the role that RCSI clinicians and researchers play in the global search to counter the effects of COVID-19. We will continue to deal with the challenges of operating in a pandemic, ensuring the safety of our students and staff. We also recognise the opportunities that lie ahead. As the new academic year approaches, we are grateful for investment in digital capability, the security that long-term funding provides and the dedication and commitment of all RCSI staff across the organisation.

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 2020/2021

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

- Jarlath Bolger: clinical and research fellowship in thoracic surgery, Toronto General Hospital and University Health Network Toronto

RCSI Surgical Travel Grants

- John Tristan Cassidy: upper limb fellowship, Melbourne Orthopaedic Group, Australian Institute of Musculo –Skeletal Research
- Elaine Redmond: fellowship in paediatric urology, BC Children's Hospital, Vancouver
- Jack Woods: clinical fellowship in reconstructive microsurgery, Memorial Sloan-Kettering Cancer Centre, New York City
- Mark Broe: robotic research postgraduate fellowship, Royal Prince Alfred Hospital, Sydney, Australia

Joint RCSI/ Guisse Mehigan Scholarship Travel Grant

- John Tristan Cassidy: upper limb fellowship, Melbourne Orthopaedic Group, Australian Institute of Musculo –Skeletal Research

Joint ACS/RCSI Resident Exchange programme

- Christina Fleming: international fellowship in robotic colorectal surgery and advanced pelvic malignancy, Pelvicare Centre, CHU Bordeaux

RCSI/Ethicon Foundation Travel Grants

- Cillian Clancy: clinical fellowship in the Department of Colorectal Surgery, Cleveland Clinic
- Gerard Sheridan: clinical fellowship in the Division of Lower Limb Reconstruction and Oncology, Department of Orthopaedics, Faculty of Medicine, Vancouver Campus
- Jack Woods: fellowship in the Department of Surgery, Plastic and Reconstructive Service, Memorial Sloan Kettering Cancer Centre

RCSI PROGRESS Women in Surgery Travelling Fellowship

- Helen Mohan: fellowship at Peter MacCallum Cancer Centre, Melbourne

The RCSI/IITOS Travelling Fellowships

- Andrew Hughes: pelvic and lower extremity reconstruction fellowship, Rothman Orthopaedic Institute, Philadelphia, USA
- Ciara Fox: upper limb pathology fellowship, North Bristol, NHS Trust
- Eoghan Pomeroy: lower limb reconstruction and trauma fellowship, London Health Sciences Centre - University Hospital, London, Ontario, Canada
- Gerard Sheridan: arthroplasty fellowship, Hospital for Special Surgery, New York, USA and Vancouver General Hospital, Vancouver, BC, Canada (two fellowships)
- James Broderick: lower limb adult reconstruction fellowship, St Michael's Hospital, Toronto, Canada
- John Gibbons: trauma and lower limb reconstruction fellowship in Christchurch Hospital, Canterbury District Health Board, New Zealand

- Matthew Nagle: primary and revision arthroplasty fellowship, QE II Health Sciences Centre, Halifax
- Mike O'Sullivan: foot and ankle fellowship, Royal Orthopaedic Hospital NHS Foundation Trust
- Olan Carmody: trauma and degenerative spine surgery fellowship, Royal Orthopaedic and Queen Elizabeth Hospital, Birmingham, UK
- Paula McQuail: foot and ankle fellowship, St. Paul's Hospital, University of British Columbia Department of Orthopaedics, Vancouver, BC, Canada
- Peter Dawson: UK national spine fellowship, Leeds Teaching Hospitals NHS Trust
- Robert Piggott: clinical fellowship in shoulder and elbow surgery, Sydney Shoulder Research Institute

Millin Lecture 2021

- Colin Pierce: Evidence based research of surgical technology and technique leading to change in practice and healthcare delivery

Dr Richard Steevens Fellowship for 2021

- Clíodhna Browne (urology) –scholarship for clinical fellowship in minimally invasive urological surgery, Austin Health, Melbourne, Victoria, Australia
- Andrew Hughes (trauma and orthopaedics) –bursary for international pelvic and lower extremity reconstruction

The Professor W.A.L. MacGowan Medal 2020

- John Tristan Cassidy (trauma and orthopaedic surgery)

Appendix 2

Academic staff promotions

Promotion to Senior Lecturer

Dr Annie Curtis, School of Pharmacy and Biomolecular Sciences
 Dr Deirdre Fitzgerald Hughes, Department of Clinical Microbiology
 Dr Michelle Flood, School of Pharmacy and Biomolecular Sciences
 Dr Oran Kennedy, Department of Anatomy and Regenerative Medicine
 Dr Tobias Engel, Department of Physiology and Medical Physics
 Dr Amal Al-Qallaf, Language and Culture Unit, Bahrain
 Dr Ebrahim Rajab, School of Medicine, Bahrain

Promotion to Associate Professor

Dr Declan Patton, School of Nursing and Midwifery
 Dr Emer Reeves, Department of Medicine
 Dr Eva Doherty, Surgical Affairs
 Dr Helena Kelly, School of Pharmacy and Biomolecular Sciences
 Dr Maria Morgan, School of Pharmacy and Biomolecular Sciences

Promotion to Professor

Professor Kevin McGuigan, Department of Physiology and Medical Physics
 Professor Niamh Moran, School of Postgraduate Studies and School of Pharmacy and Biomolecular Sciences
 Professor Seamus Sreenan, Department of Medicine and Graduate Entry Medicine

Appendix 3

Honorary appointments and promotions

Honorary Clinical Professor

Prof. John Hurley, Mater Misericordiae Hospital
Prof. Norman Delanty, Beaumont Hospital

Professor of Art

Una Sealy, Royal Hibernian Academy of Arts

Honorary Clinical Associate Professor

Prof. Abel Wakai, Beaumont Hospital
Prof. Alan Martin, Beaumont Hospital
Mr Colm Power, Beaumont Hospital
Mr Donncha O'Brien, Beaumont Hospital
Prof. Donough Howard, Beaumont Hospital
Dr Ezzat Elhassadi, University Hospital Waterford
Prof. Frances Dockery, Beaumont Hospital
Prof. Gabor Szeplaki, Mater Private
Prof. Ireti Farombi, Our Lady of Lourdes Hospital Drogheda
Mr John Burke, Beaumont Hospital
Dr John Lyne, Beaumont Hospital
Dr Laura Durcan, Beaumont Hospital
Dr Maeve Eogan, Rotunda Hospital
Prof. Mark Kennedy, Beaumont Hospital
Dr Mark Logan, Beaumont Hospital
Dr Martin Mulroy, Our Lady of Lourdes Hospital Drogheda
Prof. Mary Keogan, Beaumont Hospital
Mr Mayilone Arumugasamy, Beaumont Hospital
Prof. Michael Boyle, Rotunda Hospital
Prof. Michael O'Reilly, Beaumont Hospital
Dr Mike Staunton, Our Lady of Lourdes Hospital Drogheda
Dr Monica Monaghan, South West Acute Hospital
Dr Philip Murphy, Beaumont Hospital
Prof. Seamus O'Reilly, Cork University Hospital
Dr Siobhan MacHale, Beaumont Hospital

Honorary Clinical Senior Lecturer

Ms Anel Naude, Beaumont Hospital
Dr Ashraf Morcos, University Hospital Waterford
Dr Azhar Syed, Cavan General Hospital
Mr Ben Husien, Beaumont Hospital
Dr Ciara Murphy, Connolly Hospital
Dr Claire Louise Murphy, Connolly Hospital
Dr Claire Thompson, Rotunda Hospital
Dr Conor Harrity, Rotunda and Beaumont Hospital
Dr Daniele Giacompo, Alto Vicentino Hospital/University of Padua
Dr Diane Gillen, Beaumont Hospital
Dr Doireann McWeeney, St Luke's General Hospital
Dr Eavan McGovern, Beaumont Hospital
Dr Emma Gordon, Our Lady of Lourdes Hospital Drogheda
Dr Eoin Judge, Connolly and Beaumont Hospital
Dr Farah Mustafa, Our Lady of Lourdes Hospital Drogheda
Dr Gabriel Fitzpatrick, Department of Health
Mr Jamie Smith, Beaumont Hospital
Dr Jarushka Naidoo, Beaumont Hospital

Dr John Keohane, Our Lady of Lourdes Hospital Drogheda
Dr Karen Eustace, Beaumont and Connolly Hospital
Dr Karl Ewins, Beaumont Hospital
Dr Maha Abdul Azeez, Beaumont Hospital
Dr Mark Hehir, Coombe Women and Infants University Hospital
Dr Martin Mahon, Connolly Hospital
Dr Maurice Clancy, University Hospital Waterford
Dr Murtaza Essajee, Cavan General Hospital
Dr Nay Myo Oo, University Hospital Waterford
Mr Peter Keogh, National Orthopaedic Hospital Cappagh
Dr Rachael Cullivan, Consultant Psychiatrist
Dr Richard Watchorn, Beaumont Hospital
Dr Richelle Korrane, Connolly Hospital
Dr Roisin Collieran, Cardiovascular Research Institute, Mater Private
Mr Ronan Long, Our Lady of Lourdes Hospital Drogheda
Mr Sherif Elaarag, Beaumont Hospital
Dr Shiva Sreenivasan, South West Acute Hospital
Dr Tidi Hassan, Our Lady of Lourdes Hospital Drogheda
Dr Usama Boles, Mater Private Hospital

Honorary Senior Lecturer

Dr Nicholas Young, VHI

Honorary Clinical Lecturer

Dr Ahmed Abdul Hafeiz, University Hospital Waterford
Dr Ahmed Gabir, University Hospital Waterford
Dr Aisling McDonnell, University Hospital Waterford
Ms Alison Kearon, National Orthopaedic Hospital Cappagh
Dr Alwaleed Abdelgadir, University Hospital Waterford
Dr Amal John, University Hospital Waterford
Dr Amy Fogarty, University Hospital Waterford
Dr Anthony Noone, University Hospital Waterford
Dr Arveen Jeyaseelan, University Hospital Waterford
Dr Brendan Phelan, University Hospital Waterford
Dr Brian Murphy, University Hospital Waterford
Dr Brian Rigney, University Hospital Waterford
Dr Caoimhe Brennan, University Hospital Waterford
Dr Casey Card, University Hospital Waterford
Ms Catherine Devaney, HSE Primary Care
Ms Ciara Doran, National Orthopaedic Hospital Cappagh
Ms Cinny Cusack, Beaumont Hospital
Dr Clare Crowley, University Hospital Waterford
Dr Darragh O'Sullivan, University Hospital Waterford
Dr David Jackson, University Hospital Waterford
Mr David Richards, Mater Misericordiae University Hospital
Ms Deirdre English, Senior Physiotherapist
Dr Devin O'Shea Farren, University Hospital Waterford
Dr Elgelani Bahaeldein, University Hospital Waterford
Dr Emily Buckley, University Hospital Waterford
Dr Evelyn Lynn, University Hospital Waterford
Ms Fiona Campbell, Cork University Hospital
Dr Hazel Denton, University Hospital Waterford
Dr Helena Dolphin, University Hospital Waterford
Dr Hind Awad, University Hospital Waterford
Dr Jasim Usmar Khan, University Hospital Waterford
Ms Jenny Ashton, Beaumont Hospital
Dr Kasun Samarasinghe, University Hospital Waterford
Dr Laura Reaney, University Hospital Waterford
Dr Mahmood Ahmad, University Hospital Waterford

Dr Maria Walsh, University Hospital Waterford
 Dr Mark Bolger, University Hospital Waterford
 Ms Mary McCallon, Our Lady of Lourdes Hospital Drogheda
 Dr Mekki Hassan, University Hospital Waterford
 Dr Michael Flanagan, University Hospital Waterford
 Dr Michelle Madden, University Hospital Waterford
 Dr Mohamed Alfatih Hamza, University Hospital Waterford
 Dr Mohammed Ali Mohammed, University Hospital Waterford
 Dr Mohammed Khairul Nazri, University Hospital Waterford
 Dr Mohammed Yousif, University Hospital Waterford
 Dr Muhammad Abdullah Khalid, University Hospital Waterford
 Dr Muhammad Adeel Sarwar, University Hospital Waterford
 Dr Muhammad Fahad Iftikhar, University Hospital Waterford
 Dr Muhanad Mohamed, University Hospital Waterford
 Dr Munzir Hamid, University Hospital Waterford
 Dr Nadine Coptly, University Hospital Waterford
 Dr Niamh O'Donnell, University Hospital Waterford
 Dr Pdraig Bambrick, University Hospital Waterford
 Dr Paul Eduarad Stanciu, University Hospital Waterford
 Dr Paula Finnegan, University Hospital Waterford
 Dr Peter Lalor, University Hospital Waterford
 Dr Randa Ibrahim, University Hospital Waterford
 Dr Razan Elsheikh, University Hospital Waterford
 Dr Rebecca Howley, University Hospital Waterford
 Dr Robert Kerley, University Hospital Waterford
 Dr Rodhri Hill, University Hospital Waterford
 Dr Roisin O'Sullivan, University Hospital Waterford
 Ms Ruth Fewer, University Hospital Waterford
 Dr Sadhbh Lee, University Hospital Galway
 Dr Sam Gaine, University Hospital Waterford
 Dr Sean Landers, University Hospital Waterford
 Dr Sean O'Sullivan, University Hospital Waterford
 Dr Sebastian Gracias, Beaumont Hospital
 Dr Shivran Singh, University Hospital Waterford
 Dr Tobias Maharaj, University Hospital Waterford
 Dr Toney Poovelikunnel, Beaumont Hospital
 Dr Viviana Sala, University Hospital Waterford

Honorary Lecturer

Dr Himanshu Rai, Cardiovascular Research Institute, Mater Private
 Mr Kevin Mulligan, Centre for Midwifery Education

Appendix 4

Honorary doctorates and fellowships

Honorary doctorates

Professor Dame Jocelyn Bell Burnell, Visiting Academic and Professorial Fellow, Mansfield College, University of Oxford
 Dr Mary D'Alton, Chair of the Department of Obstetrics and Gynaecology, Willard C. Rappleye Professor of Obstetrics and Gynaecology, Columbia University Medical Centre, USA
 Dr Richard Horton, Editor-in-Chief of The Lancet
 Katie Elizabeth Piper, best-selling international author, TV presenter and charity campaigner
 Professor Martin Seligman, Zellerbach Family Professor of Psychology and Director of the Positive Psychology Center at the University of Pennsylvania, USA

Honorary fellowships

Dr Tony Holohan, Chief Medical Officer of Ireland
 Professor Chung-Mau Lo, Hospital Chief Executive, The University of Hong Kong – Shenzhen Hospital; Chin Lan-Hong Professor and Chair of Hepatobiliary and Pancreatic Surgery, The University of Hong Kong; Director of the Liver Transplant Center, Queen Mary Hospital

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