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University College Cork, Ireland

Medical
Alumni and Faculty

Newsletter 10

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Contents

Diary in Pictures

UCC Medical Alumni Scientific Conference 2011

Dr Mary Bukley and Dr Nell Crushell

Dr Paddy Crowley and Dr Dermot Long

Dr Eamonn McCoy, Dr Eamon Shannahan and Dr Mary Favier

Dr Helen Hynes and Dr Deirdre Rafferty

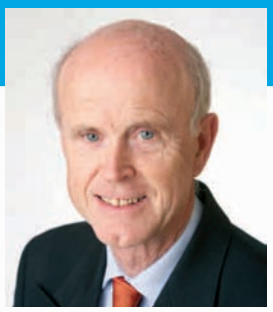
Professor Cillian Twomey, Dr. Niamh Lynch and Professor Barry Ferriss

Dr Ronan Boland and Professor David Kerins

Professor Peter Kearney, Dr. Pat Cogan Tangney, Dr Michael Hyland and Professor Cillian Twomey

Professor Eamon Quigley and Dr Noel Tangney

Dr Will Fennell



Introduction

Welcome to the 10th Medical School Alumni Newsletter.

We are coming earlier this time in order to alert alumni to the next annual Alumni Scientific Conference on September 13th 2012 to be held in Brookfield Health Sciences Complex, UCC. We are hoping to facilitate class reunions at the time and we wish to invite representatives from the reuniting classes to present their experiences. Details of the volunteer class organisers for the 2012 reunions are listed on the back page.

The 2011 Scientific Conference was an outstanding success in terms of quality and diversity of presentations and a number of the presentations are summarised in the newsletter.

It has also been decided that the UCC Medical Alumni Association should become the UCC Medical Association (incorporating Alumni and Faculty). With the development of the College of Medicine and Health, the faculty has become much more diverse than before. Up to now, many UCC faculty have shied away from alumni functions to our loss.

You will see below a brief summary of five outstanding Research Centres in UCC. I would encourage you to consider supporting the centres in any way. Giving any sum no matter how small is welcome and there are tax benefits for sums over €250 in a year, whether paid from Ireland or overseas. As the highest earning graduate group in UCC I think you will agree we should lead by example in supporting our Alma Mater.

I am also appealing for contributions to our next Newsletter and Annual Conference on September 13th 2012. The feedback from graduates far and wide remains very strong, brings back happy memories and frequently renews contacts.

We will look forward to welcoming Dr Madoline O'Connell & Dr Bill Navin (1939 graduates) as guests of honour at the conference. ■

Professor George Shorten

Welcome

UCC has become a progressively more outward looking University over the past decade and has benefitted from a strategy of internationalisation. The School of Medicine is keen to identify a small number (perhaps four) Alumni currently working at excellent training institutions which would be interested in developing formal links with UCC.
These links might take the form of undergraduate student electives, postgraduate training fellowships, PhD studentships, or exchange programmes for staff or students.

Although informal arrangements currently exist with several individuals and institutions, it is the School's intention to build on these. This will serve to enhance UCC's reputation internationally and to increase valuable diversity in the classroom, clinic and lab. You may express interest in contributing in this way by contacting Ms Connie Mulcahy, Manager, School of Medicine (msm@ucc.ie).

We want the answer right now and with as little padding as possible. There simply is no time to consider the "ifs" or "maybes" because the next question is not far behind.

The pace of life seems quicker and is quicker than before. The answer may be a catchphrase, slogan, headline or, best of all, a ranking. As I write, several university ranking systems have recently recognised UCC as a university that is improving, at least relative to its peers. The Shanghai Jiao Tong World University Ranking, the QS World University Ranking and the Sunday Times have all reported on the improved standing of UCC. We bravely opted to undergo specific evaluation by QS and were rewarded with five stars. For all the acknowledged failings of the university ranking systems, they are important determinants of how we are perceived worldwide. In 2011/12 this perception is of a first class university which knows where it's going and is getting there. Any visitor to the newly occupied facilities in the Western Gateway Building would agree.

One of the categories on which the university rankings are based is "internationalisation". The Medical Alumni Association has a tradition of bringing together old friends with shared memories of Cork and UCC. The annual meetings are invariably stimulating and good fun. It is ideally positioned to carry the reputation of UCC School of Medicine to our international colleagues and to prospective students.

There will also be opportunities to formalise our links with your new "home" institutions. These may occur in the form of student electives and placements, exchange programmes for staff or students, fellowships, PhD or scholars programmes, or collaborative research projects. In 2012, the School of Medicine will approach many of you with specific proposals; more importantly we will welcome and respond to your suggestions.

Enjoy the newsletter and we will look forward to welcoming you to the 2012 Annual Scientific Meeting of the Medical Alumni Association. ■

Head on the Couch - Professor John Higgins

Dr Bridget Maher interviews Professor John Higgins, Head of College of Medicine and Health, University College Cork and Professor of Obstetrics and Gynaecology at UCC.

There has been considerable expansion of student numbers at Brookfield Health Sciences Complex. What do you think of the student facilities at the College of Medicine and Health?

People work better when their work environment is good and students here at the College of Medicine and Health at UCC have state-of-the-art facilities. The micro-environment that is the Brookfield Complex and the recently-developed Western Gateway Building is brand new and beautifully designed. We should be grateful - it has given us top-class facilities and we really don't want for anything in terms of facilities. Western Gateway is a huge building, with lots of extra space that is now being utilised. If you invest wisely, it will always be worth-while and the extra space in the Western Gateway Building is now proving very useful.

What are your goals and your vision for the College of Medicine and Health?

The College of Medicine and Health is a relatively new creation, initially bringing together medicine, nursing, dentistry, followed by pharmacy and the clinical therapies. It takes time for a project of this nature to become a reality but our key objective is to make the College of Medicine and Health the epicentre for healthcare innovation and care for all healthcare professionals in the region.

We have identified three main objectives that we will persue. The first one, and a very important one, is to identify major research themes that we actively and strategically support so that it just doesn't depend on an individual's enthusiasm (which is important, of course). Five research themes will be the focus for the next five years – "Five in Five". That's our number one priority - to invest in research infrastructure in the broader sense, not just the space, but the people.

The second objective is to make the College of Medicine and Health a centre for lifelong learning for all health professions in the region. We train the undergraduates in all the different disciplines and there is nothing inconsistent with our continuing to do this. We have the skill-sets among the faculty, we have the organisational resources and we have the buildings and the facilities to deliver post-graduate education. It's very important for UCC to say that it wants to take on that agenda and I think it's wholly in keeping with the philosophy of the College of Medicine and Health. In the past, universities drew a line in the sand when students graduated. "That's it, we've finished with you, off you go". But the world is changing rapidly. What's now happening, especially with the Medical Practioners' Act, and what is also happening in other professions, is that Society is telling us that while university may have given health professionals their educational foundations, they have got to keep reinventing themselves as information changes more and more rapidly. The university is ideally placed to take on this role.

The third big agenda for us is one of the strategic goals in the University's 5 year plan to deliver an Academic Healthcare Centre for this region. What does that mean? It means that you link the delivery of clinical care which is the prime focus for any healthcare system, with teaching, training, research and innovation and commercialisation. Up to now, those agendas have been running in parallel, but around the world, particularly Northern America and some Nordic countries and more recently, the UK, they have found that running these agendas in parallel and separately, is not the best way to do it. The best healthcare systems in the world are actually bringing the various strands together and finding innovative governance mechanisms. These healthcare systems believe that, while delivery of clinical care is central, their remit also includes teaching, training, research and innovation.

This approach helps change the culture within the healthcare organisation in that there is an emphasis on change and on excellence and innovation. Healthcare is the world's biggest business. Ireland is highly reliant on healthcare as a business and we are very successful in the healthcare business. We are phenomenally successful in the manufacturing of medical devices. We are phenomenally successful at manufacturing pharmaceuticals. When you consider healthcare in this way, when you look at the big picture, Ireland does extremely well. Of course, in Cork and Kerry, we should aim to do better than anywhere else!

What's first on the agenda?

In the next few months, we're going to put shape on these plans and include them in the University's strategic plan. We will feed this agenda into the Department of Health as they consider how they are going to reform the healthcare system. There is a real opportunity here and the timing is good - the current Programme for Government aims to take hospitals out of the HSE and set up locally autonomous institutions. We have real opportunity right now to influence thinking nationally.

And now to a bit further afield. You worked in Australia - what are your views on the Australian Healthcare System?

In many respects, the Australian healthcare system is very similar to Ireland. Most people have a GP even if the primary care system is not quite the same. Hospital care is free and yet 40% of the population voluntarily take out private health insurance. What struck me most about the Australian system was that they got much better value for money. They were more cost conscious and the system was better run and better organised than here. In all parameters, from childhood vaccination to high-tech hospital procedures, Australia does better than us even though they don't spend much more than we do on healthcare. We should ask why?

I think they define issues better. They are very straight, what they say is what they mean and they tell you as it is. In fact, they bring that trait to everything, from how they run the clinic to how they run the healthcare system. Medical training is very well organised and they put a huge emphasis on training. They have a 'can do' culture, they look at something pragmatically and don't cite the fifty reasons you can't do something. We could learn a lot from this attitude.

Has the economic downturn had an adverse effect on your plans?

On the contrary. The economic downturn has been the single biggest driver of reform, it has brought realism to how we all think, and made us all more practical and more willing to change.

The types of things I am talking about - an academic healthcare centre for example, these are generational changes and it requires significant momentum to deliver changes as fundamental as these. But it's not just the College of Medicine and Health at UCC that is calling for these changes - other medical schools around the country are pursuing the same agenda. It may well be that a whole set of circumcumstances are coming together - where Ireland is today, a new Government, the need for a radical revamp, the need to reform the public sector. All of these things happening together may make this just the right time for the changes we suggest.

What did you learn from your experiences in bringing together the Maternity Services in Cork?
I learned almost everything I consider important in terms of management and leadership from this project. I learned a lot about people and their concerns and the need to bring people along with you. I hope I learned a lot about myself and that I'm a wiser person for it. One of the key things I've learned from the CUMH project is to identify the things you are not good at and fill those gaps first – you need people and partners working with you who have the particular strengths you don't have. I think I'm stronger on outlining the vision rather than necessarily delivering the fine details that underpin the process.
I also learned the importance and advantage of being close to clinical services and being a practicising clinician when trying to reform healthcare.

How important is clinical practice to you?
If I were to choose what I consider the single most important thing that I do, I would say that it is that I am a practicing Obstetrician. I would admit that getting out of bed at 3.00 am gets harder as I get older though! But this 24 hour commitment defines Obstetrics. There are certain specialities with a lot of "on-call" and Obstetrics is one of them. If you find "on-call" easy as a trainee, Obstetrics is one of the specialities that you may find attractive - it self-selects in that regard.

Is Cork home now?
Cork is home. Three of our children were born in Ireland, one in Australia and the youngest two are citizens of the Republic of Cork! Cork is a fantastic place. At a time when the world is changing to bringing more balance back in to our lives, Cork provides that balance and offers a huge amount in terms of lifestyle and quality of life. Recently I was listening to an external group talking about University College Cork. They said that if you look at the top universities in the world, the overwhelming majority are not found in capital cities but are located in what you might loosely call second cities - Harvard, Yale, Oxford, MIT, Cambridge. I think that this is a most useful observation. Cork is the right place.

The Art of Medicine
What attracts me to the inclusion of Humanities in Healthcare Education is the importance of tapping into our imagination and unlocking the full potential of individuals. The perfect organisation doesn't exist, but if it did, it would be one where people look forward to coming to work and feel that the organisation supports them personally and wants them to be great, an organisation that cherishes them personally for their contribution. I think that in Ireland sometimes we put too much emphasis on form rather than function and on process rather than results. The healthcare world is changing rapidly. The countries that can tap into their staff's innovation and imagination are the countries that will invent new medical devices and develop new treatments. These are the countries that will prosper. Fortunately, Ireland is a naturally innovative, creative country and this will be to our benefit. I look forward to the future.

UCC Alumni Achievement Award 2011

Sr Miriam Duggan

Limerick native, Sr. Miriam Duggan, graduated from UCC with a degree in Medicine in 1964. After graduation, she went on to study Obstetrics in Birmingham, receiving her MRCOG in 1969 and FRCOG in 1982. Sr. Miriam is a member of the Franciscan Missionary Sisters for Africa and has dedicated her life to combating the HIV/AIDS epidemic in Africa. She is affectionately called 'The Mother Teresa of Africa'.

Sr. Miriam went to Uganda in East Africa in 1969 to work first as Head of Department at St Francis' Hospital, Nsambya, Kampala and, in later years, as Medical Superintendent where she was also involved in the training of midwives and doctors.

In response to the HIV/AIDS pandemic, which became manifest in 1987, she helped establish clinics, mobile and home based care programmes to care for the sick and to help the orphans. She founded Youth Alive in an effort to address the root causes for the spread of HIV and to help young people to make responsible choices and avoid getting AIDS. The Youth Alive programme provides ongoing education regarding sexual behaviour, drugs, self-esteem and constructive life choices by providing members with a strong sense of belonging and the necessary support that they need to oppose the negative forces and pressures all around them. This prevention programme was very successful in Uganda in reducing the prevalence rate and it has now been adopted in 21 African countries. In 1998 she transferred to Southern Africa where she continued to establish care and prevention programmes in South Africa, Zambia and Zimbabwe.

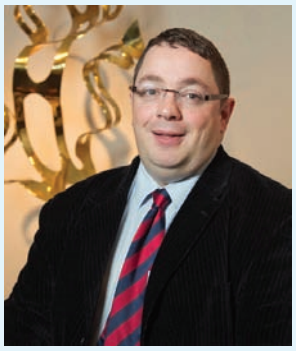
Sr. Miriam has received numerous accolades and awards for her work in HIV/AIDS care and prevention. She was honoured by Harvard University, Church of Uganda and the Templeton Foundation for pioneering behaviour-based HIV prevention in 2006. In 2008 she was presented with a recognition award from the President and Parliament of Uganda.

As well as her medical work, Sr. Miriam has been involved in the Catholic Charismatic Renewal and the Christian Doctors Guild.

She was elected Congregational Leader of the Franciscan Missionary Sisters for Africa, a position she still holds. She was President of the Irish Missionary Union from 2004 -2009.

New Chair Appointments

John F. Cryan is the newly appointed



Professor of Anatomy in UCC. His mission for the Anatomy department is to enable high-quality innovative teaching and assessment of anatomy at both undergraduate and postgraduate level within a context that is clinically meaningful and related to the competencies required by health professionals. From a research perspective the Anatomy Department has a long-standing focus on neuroscience research and John is hoping to develop an internationally recognised research unit in the neurosciences to advance knowledge, and to educate both students and society of the mechanisms and potential treatments for brain disorders. The name of the Department will change in coming months to reflect the dual disciplines of Anatomy & Neuroscience.

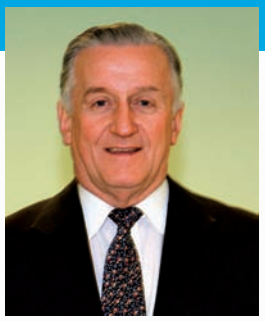
Prior to his recent appointment, John was a Senior Lecturer in Pharmacology in the School of Pharmacy and in the Dept. of Pharmacology & Therapeutics. He received a B.Sc. (Hons) in Biochemistry and a PhD in Pharmacology from the National University of Ireland, Galway, Ireland. He was a visiting fellow at the Dept. of Psychiatry, University of Melbourne, Australia (1997-1998), which was followed by postdoctoral stints at the University of Pennsylvania, Philadelphia, USA and The Scripps Research Institute, La Jolla, California. He spent four years at the Novartis Institutes for BioMedical Research in Basel Switzerland, as a Head of Laboratory in Behavioural Pharmacology prior to joining UCC in 2005. John is a Principal Investigator in the Neurogastroenterolgy Core of the APC (http://apc.ucc.ie) and also a Principal Investigator in Food for Health Ireland (http://www.fhi.ie)

One of the major focuses of John's research group is to understand the neurobiology of stress-related neuropsychiatric disorders including depression, anxiety and drug dependence using molecular, cellular and behavioural approaches. Other interests include understanding the interaction between brain and gut and how it applies to stress and immune-related disorders, including irritable bowel syndrome, obesity and sepsis. He is also interested in applying novel approaches to facilitate drug/siRNA delivery to the brain in vivo. John has an H-Index of 35 having published over 130 peer-reviewed articles, including articles in high-impact journals such as PNAS, Neuron, Nature Reviews Drug Discovery, Molecular Psychiatry, Biological Psychiatry, Progress in Neurobiology, Gastroenterology, Gut and Journal of Neuroscience. John is an Editor of The British Journal of Pharmacology and Senior Editor of Neuropharmacology and is on the editorial board of 7 other journals. John has been honoured with the European College of Neuropsychopharmacology (ECNP) Fellowship Award, the Wyeth Psychopharmacology Award from British Association of Psychopharmacology and the Young Scientist Award from the European Behavioural Pharmacology Society.

Ken D. O'Halloran was recently appointed

Professor and Head of Physiology at University College Cork. Ken is a native of Cork city and was educated at Coláiste Chríost Rí and University College Cork. He read Physiology for the BSc (Hons.) degree at UCC graduating in 1992. Thereafter, he completed his doctoral studies at the Royal College of Surgeons in Ireland (1995) and undertook postdoctoral training in the USA at the University of North Carolina - Chapel Hill (1995-6) and the University of Wisconsin – Madison (1996-2000). Ken joined the Faculty of Medicine at University College Dublin in 2000 and spent 11 years as an academic in UCD. The opportunity to lead a Department with a strong commitment to teaching and research at undergraduate and postgraduate levels was a major factor in his decision to return to his alma mater. The Department of Physiology at UCC teaches more than 1,000 students annually across a broad and demanding range of programmes in the College of Medicine and Health and the College of Science, Engineering and Food Science at UCC supported by excellent technical and administrative staff. The Department has the largest undergraduate BSc in Physiology programme in the country. Coupled with this is a diverse array of research activity in the Department supporting undergraduates, postgraduates (M.D., M.Sc. and Ph.D degrees) and post-doctoral fellows engaged in studies that range from cell and molecular physiology, through integrative systems physiology to experimental models of human disease www.ucc.ie/en/physiology/. Current projects are funded by SFI, HRB, IRCSET, EU, Wellcome Trust, and other charitable organisations. Principal Investigators in the Department lead research labs in two key sites on campus – the BioSciences Institute and the Western Gateway Building. Ken is keen to build on the legacy of his predecessor Prof. Edward Johns and he points to the important role that the Department can play in strengthening links between the basic sciences and clinical medicine in both education and research. Researchers in the Department of Physiology are engaged in interdisciplinary projects with research groups in Ireland and further afield and there is great potential to link research in Physiology at UCC with industrial partners. Ken's primary research interest is the control of breathing in health and disease. His research group utilise experimental models of common human respiratory diseases to explore the physiological and pathophysiological effects of hypoxia on the respiratory control system. Working with scientists, clinicians and colleagues in industry, the group are engaged in studies that may inform therapeutic strategies in the treatment of devastating respiratory diseases. Outside of UCC, Ken has active roles in the Physiological Society (UK and Ireland) and the Royal Academy of Medicine in Ireland.

Those were the days ... UCC, Physiology and Professor Jack Sheehan



As a former graduate in biological sciences, now of advancing years I feel strongly moved to acknowledge publicly the major contributions of UCC to my personal development and to my professional career. I feel especially indebted to John D. "Jack" Sheehan, Professor of Physiology, for the strong influence he exercised on myself and several other young physicians who, from the late 1950s on, sought insight into the then nascent field of modern scientific medicine. As background, I had studied medicine in UCD from 1956 to1962, at a time when Irish Medicine in general was more or less dominated by the influences and opinions of a handful of prominent Professors, Consultants and Specialists, often linked to each other by dynastic, marital and social connections. Very few of them were engaged in, or in close touch with, contemporary scientific research of any kind. Nevertheless, from this core group of opinion leaders emanated the modeling and advice that directed the post-graduate training of most young physicians towards essentially clinical careers. As a result, the care delivered even in teaching hospitals, could mostly be described as "eminence-based" rather than evidence-based, with students and junior doctors uncritically learning medicine largely based on the unchallenged views of their mentors.

I had always been interested in science and had reached UCD on an entrance scholarship in mathematics. My medical education was "touched by the light of science", in that we certainly had exposure to various basic sciences as we progressed through the pre-clinical years, but the content was rudimentary, relatively superficial, and gleaned from text-books, with course contents that changed little from year to year. Notes taken from our teachers in class were rounded off with knowledge gained from text-books, and these sources generally guided what we re-gurgitated in examinations, largely undigested. We did not read journals or engage in critical discussions: we thought everything was known, just not by us.

My eyes began to be opened to the limitations of this educational process by a group of Americans in my class, veterans of the Korean War, who came to study medicine in Ireland, where the costs of a medical education that was widely accepted in the USA, were easily covered by their benefits under the "GI Bill". They were all older than their Irish classmates, more mature, tougher intellectually, and in many cases had completed undergraduate degrees in the sciences in good universities, before beginning their military service and medical education. They had limited tolerance for the often poorly-supported opinions of their Irish professors, and frequently questioned them, or challenged faculty to produce data in support of the theories or hypotheses they had expressed. While their (to us hilarious) contributions often shocked us, and were not on the whole well received by faculty, they opened my eyes not only to the to the great local popularity of uncritical thinking, but also to the rapidly-growing body of scientific discoveries that might be brought to bear on exciting new biomedical research and ultimately patient care.

But where was a young doctor to obtain the mentorship and training to prepare for this emerging world of medical science? In UCD at the time, outside of Pathology and Pharmacology, there were few opportunities to study basic sciences e.g. Physiology, Biochemistry, Cell Biology, Genetics or any of the more quantitative aspects of biology. Looking at the careers of medical graduates ahead of me in UCD, doctors such as Barry Flanagan and Andy Heffernan, who had managed to secure first class academic training abroad, the springboard to such success often seemed to be spending a year in Cork, doing a B.Sc. degree in Physiology. The additional components of this training included degree-level Biochemistry, with lesser amounts of pharmacology, microscopy, photography, statistics and, above all, compulsory reading and analyses of the original published reports of ground-breaking experiments in physiology. In UCD I had had no training of any kind in data analysis or critical thinking, but in the Physiology Department at UCC, such training was an on-going daily activity.

Behind the organisation and execution of all this, and completely committed to the enlightenment of his students, was the tough and sometimes gruff, but ultimately kind, witty, and good-humored figure of Jack Sheehan, a Cork man returned from England, Africa, and God Knows Where. Like Florence Nightingale, he neither gave nor accepted an excuse, but his door, heart and mind were always open to anyone needing help or guidance. He was possessed of great personal integrity: the constant reflection of this in his behaviour left a lasting impression on me. He had a strong work ethic, always seeking excellence in himself and in those he served or directed. He also brought to us awareness of a world beyond our shores, and tried to prepare us for it. Out there, beyond the horizon, was a new and exciting world, and there were real doctors who carried out research for a living. Today, with UCC in the forefront of world centres of excellence in biomedical research, these comments may seem to border on the absurd, but in 1963-64 this awareness greatly expanded my consciousness of the scope of medicine, and its emerging basis in scientific research. His forward and objective thinking was extremely valuable to his students, to UCC, and ultimately to all Irish Medicine.

But all was not work. When I came in 1963, I joined classmates Eoin Casey and Jim Finnucane, who later went on to successful careers in Rheumatology and Endocrinology, while I pursued Gastroenterology and Hepatology, with occasional excursions into Biochemistry and Nuclear Medicine. All of these careers developed from our Physiology studies in UCC. But we also had lots of fun and great camaraderie year round. We shared interests in history, literature, music, drinking pints, and pursuing many of the "fine halfs" that wandered the quad. But, with Jack's encouragement, we also learned to work as a team, in studying some of the more difficult intellectual concepts posed by the assigned course materials.

After finishing my B.Sc., I stayed on for another 15 months and finished the M.Sc. degree in Physiology, while lecturing to medical students. I had to develop from scratch the methodology for the experiments which were the basis of my thesis, a task I found very hard. But, when the going got tough, Jack was always there with support and encouragement, and taught me a lifetime lesson in the value of persistence. This work gained me the NUI Travelling Studentship in Physiology in 1965, and helped open doors in both London and the USA. Another warm and supportive colleague from this time was Prof. Dan O'Mahony in Pharmacology. Week-ends often found Jack, Dan, various other faculty members and I, hiking in the mountains of West Cork and Kerry, to the great enjoyment of all. I recall with affection many other faculty colleagues from that time, including the late Seamus Kavanagh, John Murphy, Denis O'Sullivan, Sean O'Riada, and many others. I also found time to be an occasional performer at Cork's Southern Group Theatre, with my friends James N. Healy and Fergus Cahill, and we also broadcast a regular folk music program, "Ballads at Night", from RTE's Cork Studios.

But throughout this rich and happy interlude in my life, the one who contributed most to my growth and development was my good friend, Prof. John "Jack" Sheehan. I am just one of many young doctors who were privileged and fortunate enough to spend some time under his wise direction that greatly benefited all of our careers. Both UCC and his students are much in his debt, and owe him our profound gratitude and deep respect.

Thank you, Jack. ■

Introducing the UCC/NUIG/AUCMS Twinning Medical Programme

In September 2011, UCC welcomed the first intake of 51 medical students from Malaysia to a new Twinning programme. This programme involves a three way partnership between UCC, NUIG, and The Allianze University College of Medical Sciences (AUCMS), based in Kepala Batas, Penang State, Malaysia. AUCMS was introduced to the Irish partners in 2005 by the Malaysian Government, with a Memorandum of Agreement signed by all partners in January 2009 at a ceremony in Penang.

The students are recruited from the AUCMS Foundation course or from Mara Banting College in Kuala Lumpur following interview by the Irish partners and successful completion of the Foundation year or IB examinations. Eventually, the intake will consist of 60 students per year in UCC and 60 in NUIG. The Malaysian students make a great contribution to the life of the medical school, and a true 'learning together' atmosphere prevails.

High-quality school-leavers have been recruited to UCC from Malaysia, beginning in 1978, but in the past, the students have remained in Ireland for the full five years of the course. UCC is still recruiting students for the five year programme, but in this new Twinning programme, the students will experience slightly more than half their training in Ireland, returning to do their clinical studies in Malaysia, where they will be based at Taiping hospital in Perak state. The clinical studies will follow the curriculum and exam structure of UCC/NUIG, with the students rotating to other hospitals and primary health care centres for parts of their training. The clinical curriculum will be delivered using a mixture of conventional lectures and small group teaching, supported by distance learning facilities.

The students will remain registered students of UCC (or NUIG) for the duration of their course, taking UCC/NUIG moderated examinations, and upon successful completion of the course, will be conferred with a UCC or NUIG medical degree. Extern examiners will be appointed by the Irish partners.

A representative of UCC/NUIG, Professor Paul Fletcher, has been established in Penang since October 2008, providing ongoing liason. Professor E.J. Johns has recently been appointed as Pro-Dean and will be based in Taiping, to take on responsibility for organising the academic staff recruitment and infrastructure developments in Taiping and at the other hospitals, to ensure that all facilities are in place for the return of the first students in Spring 2014. The Twinning Programme partners have a staffing plan for the development of academic units in all of the major clinical disciplines, which will be based around the training sites. In order to provide a pattern of clinical training in Malaysia equivalent to that delivered in Ireland, there will (in addition to the appointment of the Pro-Dean) be appointments at Professor, Senior Lecturer, and Tutor level in the disciplines of Medicine, Surgery, Paediatrics, Obstetrics, Psychiatry, Primary Care, Medical Imaging and Anaesthesia. These professorial staff will be jointly recruited by UCC and NUIG.

In addition to involvement in the appointments of the academic staff in Malaysia, the Irish partners will provide mentoring and advice in course delivery and assessment. Staff development for the new Malaysian staff will include Medical Education courses which will be provided by the partner institutions in Ireland by distance learning.

Investment by the partners in the programme will ensure that the students are provided with excellent library facilities, IT laboratories, video conference facilities, clinical skills laboratories, simulation rooms, seminar and tutorial rooms, lecture rooms, student common room, prayer rooms, lockers, and staff offices. These will be provided at all hospital sites, and in a specially built student medical school building close to the main Taiping hospital base. This will also include student residential accommodation. Planning for this is advanced and will be completed well ahead of the students' return to Malaysia.

By the time of transfer to Taiping, the students will have completed (both in Cork and Galway) an intensive clinical preparation and orientation course in January – March on aspects of Health Management and Health Care Delivery specific to Malaysia, Global Health and Infectious Diseases, ALS and Advanced Clinical Skills courses, patient safety, Ethics and Medical Law, and completion of Pathology and Pharmacology exams. Satisfactory completion of this course is mandatory prior to transfer to Malaysia, with all assessments completed by March. A member of the Malaysian based faculty will have a role in this preparation for transfer to Malaysia.

Following transfer in the second part of third year, the students will reinforce their clinical knowledge and skills through the completion of clinical attachments in Fundamentals of Integrated Clinical Practice (which will include Cardiovascular Studies, Gastro-intestinal, Respiratory and Critical Care, Care of the Elderly, and Acute Medicine).

The students will augment their hospital and community based experience with ongoing Clinical Skills training in the facilities provided by the partners at the purpose built medical school near to Taiping Hospital, and at other primary care health centres and hospitals in Malaysia. Clinical Skills sessions will continue throughout their clinical studies, adapted appropriately to the stage of their training.

Where are the students to undertake their clinical training ?

View of one of the ward blocks in Taiping Hospital

Taiping Hospital

Yong Wah Hospital, or the Chinese Pauper Hospital, was the first established hospital in the Federated Malay States. It was founded in 1880 to treat the Chinese coolies and tin-miners who were often sick and suffered from various diseases, such as diarrhea, cholera, malaria, beriberi, dysentry, and pulmonary diseases. Its establishment was developed in parallel with the town's significant economic growth.

The hospital has continued to expand, particularly in recent times, and it is now the second largest hospital in Perak province. The hospital currently has 608 beds and serves as the major hospital for northern Perak province. There are 44,000 admissions annually; 70% bed occupancy; 6,200 deliveries; and 202,000 OPD attendances. Taiping has a complement of 400 medical staff, of whom 51 are specialists, 120 are Medical Officers, and 140 are Housemen. New ward blocks and outpatient departments are currently under construction, and this will further increase the bed complement. Taiping Hospital has recently been designated as a centre of excellence for research, and collaborative research with the Irish partners will follow.

Aerial view of Taiping from peak of Maxwell Hill looking west

Taiping is a large town located in northern Perak, Malaysia, about 100km south of Penang on the main North-South highway. Taiping derives the name from two Chinese characters 太(tai - 'great') and 平(ping - 'peace'). It has a population of almost 200,000 and is the second largest town in Perak after Ipoh, the state capital. The discovery of tin deposits in the area in the 19th century attracted settlers from China, who were organised into two feuding groups around the Cantonese Ghee Hin (義興) society and the Hakka Hai San (海山) society. British intervention in the early 1870's put an end to the feuding and the town, which used to be known as Klian Pauh, acquired its present name. The British made Taiping the administrative centre for the state of Perak in 1875. The town served this function until 1937 when the state capital was moved to Ipoh. The town contains many old colonial buildings, typical Chinese buildings and temples and a large state prison Taiping also receives some limelight for being the wettest town in Peninsular Malaysia. The average annual rainfall is about 4,000mm in Taiping, while the peninsula's average is 2,000mm – 2,500mm. An umbrella is not needed though as most of the time it is just a drizzle. Locals do not wonder whether it will rain on a particular day; they wonder what time it will rain.

The unusual rainfall has also led to a fertile collection of flora and century-old rain trees in the Taiping Lake Gardens, which were the first public gardens established during British rule in Malaysia. These gardens, which contain ten scenic lakes, are located near Bukit Larut within the Taiping town centre, and are adjacent to the Taiping Zoo. There is a large country club and golf resort adjacent to the Lake Gardens and Zoo.

Taiping was on the route south for the Japanese forces invading Malaysia in WW2, and there is a War Graves cemetery which is maintained to this day, with separate areas for the Christian, Muslim, and Hindu fallen. ■

Taiping Lake Gardens with Maxwell Hill in the background

Main Street in Taiping with Maxwell Hill in background

Map of Taiping

Dr Kevin Horgan

Connecting the Dots

A request to write for the Graduates Newsletter prompts a reflection on the decisions underlying one's career path. Connecting the dots can only be done in retrospect, and that can create an erroneous illusion that the path followed was planned.

My decision to attend UCC to do medicine in 1976 was somewhat predictable as my father was a UCC medical graduate. The road from Crescent College in Limerick to UCC was well travelled.

Physiology and Pharmacology were my favorite subjects. It was only later when I was involved in teaching at other medical schools that I realised just how good the clinical education was at UCC with the superb cornerstone of the clinic system.

My interest in internal medicine was fortified by electives in surgery and cardiology in Ottawa, Canada in the summer prior to final med. I learned there that I wasn't going to be a surgeon! The structured post-graduate training I witnessed was very appealing and I decided I would try and pursue post-graduate training in North America. One of the Ottawa cardiologists was Johns Hopkins trained and strongly encouraged me to go there. My discovery that there was a strong connection between Hopkins and UCC amplified my interest.

After internship in CUH, I returned to the physiology department thinking a firmer grounding in physiology under the challenging mentorship of Prof Sheehan and Prof Hall would be an excellent foundation for my desired career in academic medicine. It was!

I then spent a hectic year as a Senior House Officer in Birmingham, prior to going to Baltimore. I worked at the General Hospital and the Queen Elizabeth Hospital where Richard Fitzgerald was a revered member of the radiology departments. There was a strong tradition of UCC graduates working there, with Prof Denis O'Sullivan and Paule Cotter two notable predecessors. Medical practice was predictably very similar to Cork though the volume of patients and their ethnic diversity was a novelty. There was reticence about aggressive therapy that contrasted with my subsequent experience in North America: elderly patients with chronic respiratory disease were not to be ventilated because of concern that they would become ventilator dependent. I saw multiple patients with hypothermia during the severe winter of 1984. I became friendly with Malegapuru Makgoba, an opinionated South African endocrinologist and immunologist, who would later inspire me to do immunologic research. Also, another colleague was David Adams with whom I shared multiple interests. The most memorable clinical experience I had in Birmingham was in the Liver Unit which had a rapidly growing transplant unit and that kindled an interest in applied immunology.

I then moved to Baltimore where Paul and Andrew Whelton were on the Johns Hopkins faculty. There was a distinctive sense of cohesion and collegiality at Hopkins: the esprit de corps was particularly strong and welcoming with a mindful awareness of the historical legacy of William Osler and his philosophy of "Aequanimitas". The generous hospitality of Donal and Alma Nyhan was very welcome when I arrived.

The hospital was more generously staffed and the hospital stays tended to be shorter

than in Birmingham and Cork. All inpatients were seen daily at consultant level. There was a formal signing out process to ensure that colleagues, covering your patients when you were off, were aware of potential issues that might arise. Patients were zealously "worked up" with little regard to cost and investigations were easily arranged. I did more lumbar punctures in one week at Hopkins than I had done in a year in either Birmingham or Cork. Elderly patients with chronic respiratory disease were frequently and briefly ventilated and to my surprise generally did well. There were many teaching conferences. I recall vividly a presentation on hypothermia where it was commented that all the relevant literature was curiously from the UK, provoking an interesting discussion! My aspiration in pursuing a 3 year medical residency was to try and assume some mastery of internal medicine! However, as much as I learned and the more experience I got, the more I appreciated the degree of my ignorance in comparison to the multitudes of surrounding expert subspecialists.

Unlike most of my colleagues, I didn't feel a compelling attraction to any clinical subspecialty. Inspired by my friend Malegapuru, who was now at the National Cancer Institute in Bethesda, Maryland in suburban Washington DC working in the laboratory of Stephen Shaw, I applied to do immunology research in Steve's lab. I thought this would be an excellent opportunity to learn about research in a small laboratory that was publishing in high impact journals such as Nature. I joined Steve's group in 1988. Steve had made the observation that antigen independent T cell interactions result from adhesion mediated by specific molecular interactions and identified the first molecular receptor ligand interactions between different cell types: CD2 with LFA3 and LFA1 with ICAM1. I extended this by characterising subsets of T cell defined by differential expression of isoforms of the CD45 molecule. Unlike much immunology research, we only used human samples. My main finding related to the a4b7 integrin molecule which mediates the migration of T cells to the gastrointestinal tract. This molecule has subsequently emerged as an important factor in mediating HIV infection and also as a therapeutic target for inflammatory bowel disease. When I left Steve's lab, my former colleague from Birmingham David Adams took my place. UCC classmate Frank Sullivan was also in Bethesda, training in oncology and subsequently radiation oncology. I interacted with research fellows from all over the world and it was enthralling to learn about their research. I particularly enjoyed learning about advances in brain imaging from Declan Murphy, a psychiatrist from London, who regularly updates me on his latest findings at Kings College.

My immunologic research experience prompted my choice of specialty. If I were to apply my insights into human immunology to a clinical problem, then gastrointestinal disease seemed a logical focus. The University gastroenterology department with numerous "opinion leaders" on the staff including Fergus Shanahan. Jared Diamond the physiologist and ornithologist was also a member. Since "retirement" Diamond has become a geographer and writer of provocative and influential books that attempt to explain the rise and fall of civilisations: "Guns, Germs and Steel" & "Collapse".

The UCLA medical school was founded in 1951, interestingly, the year of my father's graduation from UCC, illustrating the youth of California. My endeavors at applying my immunologic insights to inflammatory bowel disease were somewhat frustrating. Pursuing what is now called translational research, I impatiently felt the work I was most interested in would be more effectively pursued in the setting of a pharmaceutical or biotechnology company. I also felt there was too much of a rift between patient care and the laboratory based research I was trying to pursue: I didn't feel comfortable as a part time clinician treating complex patients.

I was lucky to get a position at Merck in their GI group – which had a very strong record of successfully developing drugs such as Pepcid and Losec. Merck, at that time, had an exceptional reputation among pharmaceutical companies for its academic rigour and ethical approach to business.

My assigned project was to lead the clinical development of a neurokinin 1 (NK1) receptor antagonist. The NK1 receptor is the dominant receptor for the neuropeptide substance P, originally discovered in 1931 and believed originally to have a crucial role in pain perception. Many companies had been trying to develop NK1 antagonists but progress had been slow. When clinical trials were done, surprisingly the compounds were not effective at relieving pain, but they were effective at preventing nausea and vomiting associated with cancer chemotherapy. My job was to design and supervise the execution of the clinical trials that would enable approval of the Merck NK1 receptor antagonist throughout the world for alleviation of nausea and vomiting. The drug's site of action was in the brainstem and it had a complex metabolic and drug interaction profile. We used positron emission tomography (PET) to help select the dose in a way that has remarkably become a model for subsequent development of brain penetrant drugs.

The drug was approved in both the US and Europe in 2003 as Emend. An especially gratifying aspect of the program was the number of letters received from patients who had found chemotherapy to be very distressing without Emend and easily tolerable with it.

In 2004, I was also belatedly and peripherally involved in the final days of the COX-2 inhibitor Vioxx as a marketed drug, when a colon polyp prevention trial, that I had assumed responsibility for, produced unequivocal evidence of a cardiovascular risk. It was established soon after that other COX-2 inhibitors shared this risk. Though the COX-2 inhibitors reduced the recurrence of polyps, this benefit was negated by the cardiovascular effect. It was my Philadelphia neighbor, Dubliner Garret FitzGerald, who had predicted previously that there might be cardiovascular issues in some patients when he had discovered that COX-2 inhibition reduced prostacyclin production.

Given the increasing importance of biologic therapies and my background in immunology, I was keen to acquire some biologics experience which was not possible at Merck. A dividend of living in the Philadelphia area is the proximity to many of the major pharma companies and I joined Centocor, a subsidiary of Johnson and Johnson, the developer of Remicade. For 2 years I worked on Remicade and several novel anti - inflammatory drugs before I became restless and moved to General Electric Healthcare to work on molecular diagnostics. The diagnostics were imaging based and were a logical extension of my prior experience with PET at Merck. GE had acquired the diagnostic group as a result of the acquisition of the Amersham company. This was a fascinating experience and I thoroughly enjoyed working on molecular imaging agents related to the diagnosis of Alzheimer's disease, Parkinson's disease and cancer with a focus on angiogenesis. Developing a novel diagnostic is more complex than is frequently appreciated – the key question is whether a novel diagnostic provides additional information that influences patient management/outcomes positively. Many diagnostic evaluations provide information that is not likely to alter management: reimbursement based rather than evidence based medicine!

Having spent more than 12 years in very large companies, I was keen to try working for a much smaller enterprise where I could attempt to leverage my experience. The company I joined in February 2011, Soligenix, has an inflammation focus and is trying to repurpose existing drugs for novel indications where there is unmet medical need. So far, I'm enjoying the more informal atmosphere of a small enterprise and we are working on some very interesting projects with potentially large impact.

I have been very lucky to have such a varied career thus far. Certainly, my UCC clinical and physiology training gave me an excellent foundation and it is gratifying to see how the medical school has developed and flourished in recent years. Please get in touch via linkedin if you are passing through Philadelphia and I look forward to seeeing my classmates in October 2012 at our 30th year reunion. ■

Medical Grand Rounds: feeling the pulse of an institution

Introduction

Walking along the main corridor in Cork University Hospital after an absence from the building of more than 15 years, I was surprised at the multitude of memories that came flooding back from my days as a student and junior doctor in UCC and "the Regional". Just as a piece of music can bring back memories of a time and place that is long forgotten so, I realised, can the return to an institution that was once a nurturing environment for those of us assigned to learn the medical profession within its walls. During the course of an afternoon spent visiting an ailing relative, I enjoyed taking time out to explore some of my old haunts and to trigger the return of additional memories.

Passing the ward sister's office on ward 2A reminded me of the post-ward round cup of tea that was part and parcel of Denis O'Sullivan's professorial ward round. Because of the size of the room all but the senior members of the team were excluded. I had a real sense of "arrival" when, as Prof Sull's registrar, I was finally invited in to the china tea set inner circle. I was surprised to see a photograph of the professorial team from those days still adorning the wall of the main ward corridor. Another "wall decoration" that I had forgotten about was the board (prominently displayed near the hospital entrance) listing the winners of the best NCHD presentation from the mid-1980's to the present time. I don't know where the idea for that "board of honour" came from (it may have been the aforementioned tea room) but it represents a good example of the promotion of a (competitive) learning environment in the hospital.

Medical Grand Rounds (MGR) is a fundamental part of any academic medical centre but one that can easily be taken for granted. Since returning to NUI Galway as a Senior Lecturer in 2005 I have been responsible (along with my colleague Tim O'Brien) for the organisation of the Galway University Hospitals MGR programme. I have come to realise that while effort has to be put in by the organisers to ensure that talented and informative speakers get invited to deliver MGR, the real success of the programme is dependent on the degree of engagement by the staff of the institution. If asked to assess the health of an academic medical centre anywhere in the world, I would have no hesitation in asking to sit in on that week's MGR. While HIQA, the Medical Council and the HEA have a legislative role in ensuring (and accrediting) the standard of care delivery, teaching and research within an Irish teaching hospital the weekly MGR is where all of these elements should (ideally) come together.

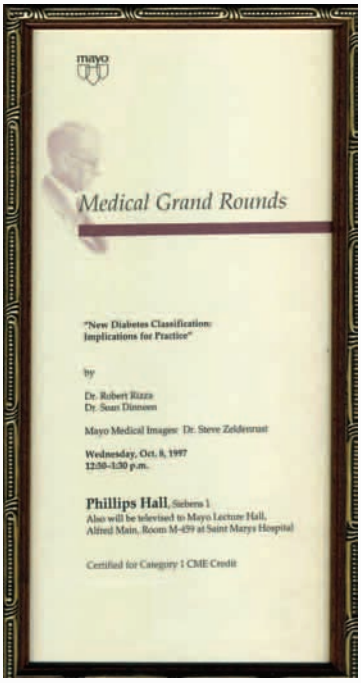
When invited by Will Fennell to write a piece for the UCC Medical Alumni newsletter I thought a reflection on my own experience of MGR in the various institutions in which I have worked would be of interest to the readership. It has certainly been interesting to write!

Cork in the 1980's

My recollection of MGR in Cork during my NCHD days consists mainly of the weekly case presentation mentioned above. These were typically SHO-led and involved two separate 30 minute reviews of a case (or cases) including discussion and key learning points. In those pre-powerpoint days we used acetates and an overhead projector to deliver the message. The venue (main lecture theatre) and the audience (senior members of the medical consultant staff and your NCHD peers) meant that there was a formality and an edge to the event. Added to this was the fact that you were competing for a prize and your name on the board! Derry Murnaghan stands out in my memory as being an interrogator of fine detail. Michael Brady, Professor of Surgery, was also a regular attender. While very few of us mere mortals would ever dare compete with the likes of Liam Plant on the floor of the UCC "Philosoph" the MGR forum was a more even playing field. The case itself often carried the day and the presenter did not need to have world class public speaking ability to engage the audience. The meeting was held on Fridays at 4pm and was followed by tea and biscuits which in turn was often followed by adjournment to the Bishopstown Bar. The cut and thrust of the Cork MGR forum and the collegiality that it engendered among the medical staff was good preparation for future endeavours overseas.

Mayo Clinic MGR

I moved to the States in 1989 and spent several years in training and on staff at the Mayo Clinic. Mayo amounts to an enormous medical enterprise with the main facility in Rochester, MN and satellite clinics in Jacksonville, FL and Scottsdale, AZ. It was a remarkable place to learn and to practice medicine. The scale of the enterprise was hard to fathom coming as we did from an under-resourced health service in Ireland. In the year I left Rochester (1999), Mayo Foundation employed 32,531 staff consisting of approximately 2,000 consultants, 1,500 trainees and over 28,000 administrative and allied health personnel. The annual expenditure on research in 1998 was over 200 million dollars and on education over 100 million dollars. There were 1,820,000 outpatient visits and 108,054 surgical cases which generated over 100 million dollars in net patient care revenue. The three shields



of the Mayo logo represent clinical practice, research and education, and the not-for-profit model calls for revenue from the practice to be fed back into the teaching and research efforts.

Medical Grand Rounds at Mayo were held at lunchtime on Wednesdays in the ground floor of the Siebens building, a multi-storey building dedicated to medical education. The venue was an impressive several hundred seater auditorium with large wall hangings reminding people of the traditions of Mayo including images of the founders of the institution (the Mayo brothers) and of Nobel prize-winning clinical investigators (Kendall and Hench). The MGR session was chaired by the Chair of the Department of Medicine or in his absence, a senior member of the Mayo Foundation (responsible for postgraduate education). Presenters included external and (mainly) internal consultants from a range of medical specialties. The main speaker was often preceded by a brief vignette or image in clinical medicine presented by an internal medicine resident.

My early recollections from attending those sessions include a sense of amazement at the self-confidence of the American medical student. It would not be unusual for a student to ask a question or even speak of their own "experience" with a certain condition in front of an audience of several hundred clinicians. Later on I came to appreciate the meritocracy of the US system. If someone has a good idea (regardless of their seniority) the system wants to hear about it and (generally) will do what it can to encourage and promote its development.

The MGR session at Mayo was strong on the clinical aspects of medicine and (like many other aspects of the work there) interpreted scientific breakthroughs in the context of what they meant for clinical practice. This was true of my one and only presentation at Mayo MGR when (along with my mentor) I spoke of the clinical relevance of new diagnostic criteria for diabetes (see illustration).

McMaster CE&B Rounds

After completing my internal medicine and sub-specialty training at Mayo I spent a year doing a Masters in Clinical Epidemiology at McMaster University in Hamilton, Ontario. I studied in the Department where the term "Evidenced Based Medicine" was defined and put into operation by people like David Sackett and Brian Haynes. Because the year involved no clinical practice I did not attend the hospital MGR but instead was a regular attender at the weekly "Clinical Epidemiology and Biostatistics" or CE&B rounds. This was a remarkable forum in which clinicians from many different backgrounds combined with "methodologists" (including statisticians, health economists, clinical trialists and others) to interrogate protocols, preliminary data, or final results of clinical practice research. There was a real excitement to the presentations and discussions with a sense of "making it up as you go along". This was the environment that gave birth to the concept of the number needed to treat (NNT) which has now become a widely used method for presenting the results of a randomised controlled trial in a way that is relevant to the practicing clinician. As a mere MSc student I did not get to present at CE&B rounds and I don't think I would have been brave enough to do so even if invited!

Addenbrooke's Hospital MGR

After 10 years in North America I moved to work in the NHS and took up a consultant post in Addenbrooke's Hospital, the main teaching hospital of the University of Cambridge. I was very busy clinically during my time in Addenbrooke's and often missed the weekly MGR which was held on Wednesdays at lunchtime (a particularly busy day for me). The venue was the William Harvey lecture theatre in the Clinical School building. The meeting was chaired by the Regius Professor of Physic, Professor Sir Keith Peters, or by one of the Professors of Medicine. The format involved two 30 minute presentations by consultants or senior trainees on a sub-specialty topic of interest to the general audience. The meeting was always well attended by students and clinicians from all ranks within the hospital. On the 2 occasions that I delivered MGR in Addenbrooke's I included patients as co-presenters. This was not commonly done but was very well received. The first patient was a retired banker who developed a true allergy to insulin, a once-in-a-career event, even for a diabetologist. The second was a patient with diabetic gastroparesis who was the second person in the UK to receive a gastric pacemaker to treat his condition. Both patients were very confident at discussing their condition in front of a large medical audience.

Galway in 2011: bringing it all back home!

Our MGR programme in Galway is held on Fridays at lunchtime and is supported by an unrestricted educational grant from a number of pharmaceutical companies. Because we have separate postgraduate education sessions geared towards SHOs and Registrars the MGR programme is consultant led. We aim to have internal speakers approximately twice per month and external speakers (from within Ireland or from further afield) twice per month. If possible we invite external speakers to meet colleagues from their specialty at a Visiting Faculty dinner on Thursday evening and/or during the course of Friday morning. The MGR programme is a good way of promoting the hospital and the university to influential people from abroad. We encourage new consultants to present as early as possible during their appointment as a way of letting people know their interests and encouraging interaction. The programme is generally well attended although we have had disappointing turnout on occasion, particularly if the time of the meeting is changed to facilitate a visitor's travel arrangements.

What lessons have we learned from other MGR experiences and how have these lessons been incorporated into our Galway programme? The venue is really important and should reflect the importance placed on the meeting by the institution. Although we have more modern facilities on the main University campus we continue to hold MGR in the Clinical Science Institute because it is adjacent to the hospital and makes it easier for busy clinicians to attend. Buy-in (and attendance) from senior clinicians is critical. If juniors see that their consultant does not attend MGR then they are very unlikely to do so themselves. Attendance cannot be insisted upon by the organisers however the recent introduction of competence assurance by the Medical Council is likely to help attendance at all organised medical education events. Preparation of a proper introduction by the chairperson helps set the scene for a good MGR. Ease of use of the audiovisual supports also helps avoid the unanticipated during a talk. The dream scenario for the editor of a medical journal is a readership that tears the journal out of its wrapping as soon as it arrives and sits down to read the content cover to cover. The equivalent for the organiser of a MGR forum is a large attendance with full participation in the Q&A session following an enlightened talk. While we may not yet be at that point in Galway we're working on it! Let us know if you are passing through and you want to feel the pulse! ■

Dr Paul O'Brien

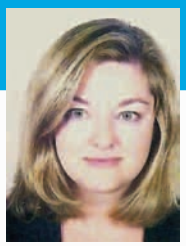
Memoir of the Plague Year

LONG TERM FOLLOW-UP

Following on my 'Memoir of the Plague Year' article in the Medical Alumni Newsletter 7 describing how some other students and I during the Cork polio epidemic of 1956 volunteered to manually ventilate a little 4 year-old girl with respiratory paralysis who couldn't be mechanically ventilated, the Cork Holly Bough 2009 picked up on the story. Shortly after it appeared editor John Dolan got a call from Carmel Daly who thought she recognised her little sister Margo Flynn from my description. I spoke with Carmel and, sure enough, she was right. She told me that Margo had lived on in the bosom of her family until she died age 19 of complications of chronic respiratory insufficiency. She had led a happy if compromised life. I had the pleasure of also talking with Margo's ninety year-old mother, who was very happy her brave little girl was remembered after all the years. Subsequently Margo's full tragic but uplifting story appeared in the 2010 Holly Bough.

I contacted what far-flung survivors of those long- ago days I could find, including Nancy O'Connell SRN, (nee Riordan), in South Carolina, who also spoke with Margo's mother and sister, and fellow volunteers Raymond Hegarty (Nova Scotia), John A. Kelly (Pennsylvania), Michael O'Sullivan (Arizona) and of course my wife Elizabeth Healy. They were pleased and intrigued to hear such positive follow-up on their efforts after 54 years. ■

Dr Deirdre Bennett and Dr Martina Kelly



What Makes A Doctor?

The Teaching and Assessment of Medical Professionalism

"To me the ideal doctor would be a man endowed with profound knowledge of life and of the soul, intuitively divining any suffering or disorder of whatever kind, and restoring peace by his mere presence" Henri Amiel

The aim of modern medical education is to produce a good doctor rather than a perfect one. But what does a good doctor look like? How do they feel, think and behave? Our professional bodies attempt to capture these elements in definitions and frameworks for medical professionalism but in practice the issues are complex and poorly defined. Most doctors are aware of these guidelines but day to day employ an internal barometer in relation to professionalism. We all have an image of the good doctor, a composite created over years of undergraduate and postgraduate training, based on other doctors we have met and experiences from our own practice. We may not find it easy to define professionalism but we know when it is missing, in others at least.

Professional behaviour in doctors is important to patients. In 2010, 52.6% of complaints to the Medical Council related to breaches of professional standards or poor communication /rudeness. In 2006, a Medical Council survey revealed that 25% of people had reason to be dissatisfied with a doctor over the previous 5 years. In 30% of cases this related to doctors' inter-personal skills including rudeness, poor communication and a lack of empathy. The need to ensure that medical graduates do better in the future is clear.

Guiding medical students as they develop their professional identity is challenging for teachers. Diverse in every aspect, medical school classes no longer look like a typical Irish Leaving Certificate cohort. In 2011, across programs at UCC, more than half of our first year students are North American or Malaysian. They may be in their teens or their thirties, just out of school or married with families. They come to medical education with vastly differing experiences of life and of education. New knowledge and understanding is built on the foundations of what students already know and understand. The challenge for us is to support the development of professional identity in a way that connects who our students are with the requirements of patients, colleagues and wider society.

The traditional medical education, which most of us experienced, did not address Medical Professionalism as a discrete entity. Domains within professionalism, ethics and jurisprudence, were taught but other aspects were left to the informal and hidden curricula. The informal curriculum is the ad hoc learning that takes place in clinical settings, discussing cases in corridors and over coffee. The hidden curriculum is made up of powerful messages communicated to students about "the nature of things" in medical practice. The uncritical absorption of unprofessional attitudes and behaviours is a risk of this approach. It is now recognised that such an important aspect of students' development shouldn't be left to chance. Regulatory bodies require that we teach and assess our students' professionalism.

So how do we go about teaching students about medical professionalism in the clinical setting in UCC in 2011? Before students come to clinical attachments they are taught the cognitive base of medical professionalism. There is a gap, however, between the theory of medical professionalism and its practice. It is in the clinical setting that students come to understand the complexities and uncertainties of professional practice. Students are encouraged to be aware of professionalism issues that arise on clinical attachments. They write reflective pieces on their experiences which are then discussed in small group sessions with their peers and a tutor. Reflection requires the students to look at the attitudes and beliefs that they bring to the clinical setting. They return to an event and view it from a distance. They consider how they and others behaved and felt at the time, they are able to analyse how events unfolded and how they can use this understanding in their future practice. By discussing their thoughts with peers they gain alternative perspectives and the beliefs and attitudes which they hold may be challenged. The tutor guides students to an understanding of professionalism in practice.

Students often reflect on the professional skills of role models. *"She never once appeared to lose composure, particularly when the story of the patient's family history was unfolding. She was able to express an appropriate level of empathy and compassion towards him while he was telling his story..... she patiently eased the patient's worries and concerns, as well as ensuring that he understood the approach he was to take in managing his condition".*

They examine their own feelings and those of their patients. *"She started talking about her daughter who was born with congenital neural tube defect. I felt very emotional and disabled, I didn't know what to do, or say because I fear if I changed the subject she would feel rejected but if I interact and ask further she would get more emotional so I was in a awkward position but I expressed sorrow many times and showed empathy because I think that this is what she wants.....after a few seconds I was able to respond to the patient's body and verbal language to make her feel important and listened to".*

They gain insight into how trust develops between doctor and patient. *"The GP has time to build up a relationship with his patients that you do not often see in the hospital setting. During my three weeks in general practice I saw how important this patient relationship is and how patient trust in their doctor is so important. I saw people with both acute and chronic illness during my three weeks in general practice and it helped me to understand better the affect that illness has on people's lives.*

Therefore, we teach medical professionalism in a way that is grounded in students' own experiences and contextualised in real life practice. But how do we judge what our students have learned? Assessment of professionalism remains problematic. What is the rationale behind trying to assess professionalism? To encourage students to take it seriously? Perhaps. To provide formative feedback? Certainly. Most importantly however, it is about identifying the unprofessional doctors of the future. The link between undergraduate unprofessional behaviour and later breaches is well established.

No single assessment method can capture the complexity of professionalism. Surveys of professional attitudes have not been demonstrated to translate to clinical practice. At UCC we have added a professionalism dimension to many of our clinical assessments, OSCE, clinical attachment evaluations, workplace based clinical examinations eg. MiniCEX. Behaviour in such artificial situations, with an examiner standing by, may not reflect behaviour in practice however. Nor do such assessments address the thinking that lies behind behaviour. In this regard assessment of written reflections seems attractive but there are problems here also. Is it ethical to assess students' inner thoughts and will doing so lead to gamesmanship? Students might fabricate their reflection in order to gain a better mark. The educational literature has some suggestions, however these focus on reflective writing ability rather than linking to understanding of the concept of medical professionalism, which is surely our goal.

Medical Professionalism is an emerging area within Medical Education. Our research, here in the Medical Education Unit at UCC, examines both how students learn about professionalism and how we might effectively assess their learning. In an era when there is heavy emphasis on biomedical research and technological advances, we must not forget what separates us from the bio-scientists and bio-engineers. What makes us doctors? It is our relationships with patients. Research into teaching and assessing Medical Professionalism is key to the future of our profession and must be supported by the same investment of effort and funds as research in biomedical domains. To conclude *"One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient"*

Charles Sugrue M.D. of Cork (1775-1816) - A Name That Deserves To Be Better Known

Mortan's Medical Bibliography is a comprehensive listing of the most important contributions to the world literature of medicine. The only citation with a Cork connection appears to be that of Charles Donovan, honoured for his contributions to the pathogenesis of leishmaniasis. Hopefully, Cork doctors of the future will continue to significantly contribute to medical science. One Cork doctor whose name deserves inclusion in any bibliography of medical science is that of Charles Sugrue.

On the June 26 1800, Sugrue sent a letter from the city of Corke to the London Medical and Physical Journal, describing the case of Richard Mountjoy, who was eight years old when he first came under Sugrue's care in 1796. *"[A] thin sprightly boy of a fair complexion with blue eyes delicate skin and fair hair was attacked … with a severe pain under the stomach." Treatment for worms and all other therapies then available were of no avail, except large doses of laudanum. The pain persisted for some months until he underwent a spontaneous remission. The child remained well until the summer of 1799, when his illness relapsed, with pain similar to before, increasing in severity. "Though during the last three or four months of his illness, he took a considerable quantity of nourishment, he visibly became more emaciated and feeble. His pulse was during this time about 120. His countenance resembled that of a person in the last stage of a pulmonary consumption; it was pale, and the hectic flush was distinctly marked on each cheek; he had constant profuse and universal perspiration."* Young Mountjoy's progress was inexorably downhill. He died in May 1800.

At the parents' request, a post-mortem was performed. Reflecting the wasting nature of the illness, no omentum or adipose tissue was found. There was no evidence of tuberculosis or of worms. A tumour was found attached to the right kidney:

The tumour was of an oblong shape, about six inches long, and from two and a half to three in its largest diameter; it was of the same colour as the intestines externally; it was of a firm consistence and on cutting into it, we found it composed of a yellowish-coloured substance, with a shade of brown, not unlike the remains of beef-suet, after it has been melted and the tallow squeezed out of it. After been separated from the kidney, it weighed 2¾ lbs. We now had no hesitation in pronouncing this tumour to be a considerable enlargement of the capsula renalis [adrenal gland]. … On raising up the stomach and spleen, a similar tumour was perceived on the left side, which on examination was found to be the capsula renalis of that side also considerably enlarged; it resembled in appearance that of the right side … The capsula renalis of the left side, together with the kidney, which was of the natural size, weighed 3¼ lb.

The symptoms and signs of weight loss despite a voracious appetite, recurrent abdominal pain, hectic flushing, perspiration and tachycardia, taken together with the presence of bilateral adrenal tumours are highly suggestive of phaeochromocytoma. No other diagnosis would account for this combination of findings. Hitherto, the first description of phaeochromocytoma was thought to be by Dr Felix Frankel in 1886. He described the case of 18 year old woman, who suffered from intermittent attacks of palpitations, anxiety, headache and vomiting. An autopsy showed bilateral adrenal tumours which however were thought to be incidental to her illness which was attributed to nephritis.

Born in 1775, Charles Sugrue was a medical student in Paris and in Edinburgh, then the leading centres for medical education. When in Edinburgh, he translated from the Latin Robert Menzies' *A Dissertation on Respiration,* which contains the first description of a method of measuring tidal volume of breathing. Sugrue graduated at the age of 21 years from Glasgow University and came to Cork after qualifying. There, the institution with which he was most associated was the Cork Dispensary. Dispensary doctors were often those who by virtue of their religion or who for other reasons were excluded from the more lucrative hospital positions. Patients ("the sick poor") were treated in their homes and doctors were for the first time exposed to the full effects of the extreme poverty then prevalent. Sugrue also had a connection with the Cork Lying-In Hospital.

Edward Jenner, noting the protection against smallpox conferred by previous cowpox infection, introduced vaccination in 1798. The success of the procedure ensured its rapid dissemination. According to John Milner Barry, to whom credit is usually given for introducing vaccination to Ireland, the protective effect of cowpox infection had been long known in west Cork - the native Irish calling it shinach. Sugrue was Milner Barry's closest associate in introducing vaccination to Cork. Sugrue undertook experiments, presumably to understand the mechanism of protection conferred by vaccination. Obviously not hindered by ethical considerations, he inoculated with smallpox two children who had already been vaccinated, and noted the failure of a smallpox pustule to develop; in another experiment, Sugrue simultaneously inoculated a child with both cowpox and smallpox.

There were recurrent epidemics in Ireland of typhus fever throughout the eighteenth and nineteenth centuries, with a particularly virulent outbreak in Cork in 1800 and 1801. John Milner Barry was the most prominent doctor in early nineteenth century Cork, particularly in the field of public health. Despite much opposition, he succeeded in opening the Cork Fever Hospital and House of Recovery on the Old Youghal Road in 1802. Sugrue was a member of the founding committee of the Fever Hospital. Sugrue and Milner Barry were close associates, but seem to have had a falling out at this time.

Medical issues and politics can be closely intertwined. An anonymous Cork writer declared that the vaccinators "are with few exceptions, if not downright Jacobins, at least jacobinacally inclined". Sugrue was politically active and was indeed also "jacobinacally inclined". Coming from the increasingly confident and upwardly mobile Catholic professional middle class, he would have been acutely aware of the continuing discrimination of the Penal Laws. Education in revolutionary Paris and in Enlightenment Edinburgh must have influenced the young student. Cork itself was politically radicalised in the 1790's. Arthur O'Connor, a senior United Irishman, visited the city in 1796. O'Connor had recently been in France and knew an invasion was imminent. A "select few was summoned" to meet him. Sugrue was a member of the Directory of the United Irishmen then formed. The French invasion at Bantry Bay in the winter of 1796 was a failure but raised the political temperature even higher. Even greater numbers of the medical profession were however loyalist, most prominent among whom was Dr Robert Harding, physician in the North Infirmary. Harding was sheriff of Cork in 1798 and was the leading figure in suppressing local radicalism and revolution. In his house searches and other activities, he did not spare his medical colleagues. Sugrue remained sufficiently prominent in radical circles that he was arrested at the time of Robert Emmet's uprising in 1803.

It is possible to follow his career until 1804 but thereafter we lose track of Charles Sugrue. He may have continued practicing without public activity or he may have left Cork. He died in Genoa on 30th March, 1816 after a short illness contracted on a journey from Marseilles.

Sugrue was an active participant in the vibrant medical culture of early nineteenth century Cork. From the case report, we can deduce he was an acute observer and an empathetic and astute clinician. A product of his background, he was also socially and politically active. Sugrue deserves recognition and honour. When Cork clinicians consider phaeochromocytoma, we should remember Charles Sugrue, who provided its first description. ■

Dr Éamon McCoy

Twenty Years of War and Disaster - The Story of IDEALS

This is the story of a medical charity. Although it is a very small charity, it is one that has been realistic in ambition, highly cost effective and has punched well above it weight during the last two decades. It has changed the lives of those of us involved. It has also changed the lives of many others in Europe, Asia and now in the Middle East. It has done so at minimal costs in travel or miscellaneous expenses or overheads. More importantly, it is a medical charity that doesn't just firefight but sees that, though its acute projects must be completed in a short a time as possible, long term support is critical. Finally, it is a charity that realises that medical assistance alone is sometimes not the priority. This charity is called IDEALS and it has been in formal existence for more than 17 years.

The story begins in June 1994 in the Sarajevo, the capital of Bosnia and Hertzogovnia, which had been under siege of almost a year - a siege that would last for a total of 42 months. At least 142,000 people, of a population of 4.3 million are known to have been killed, 16,000 of these children under the age of 12. However these are United Nations figures and probably a gross underestimation. It is believed that almost 400 physicians were killed or imprisoned. In the city of Sarajevo alone with a population of 380,000 (pre war 550,000) nearly 11,000 were killed, 80% of these civilian, including 1,500 children. In addition more than 50,000 were wounded, 15,000 under 18 years-of-age. But what these figures hide is the sheer savagery of the attacks on the population, the systematic murder and rape, the deliberate wounding in the pelvis and lower limbs in order to sap medical resources, the targeting of children in order to draw adults into firing range and the precise shelling of hospitals. They also neatly disguise many thousands of deaths from malnutrition and infection.

At the time I was doing my anaestheic training in Belfast and had seen a fair share of bomb and gunshot injuries. But Sarajevo was on another level. Early in the siege almost all of the ambulances were destroyed, together with the buses, trams and the telephone system. Indeed red cross-marked vehicles and their crews were specific targets of sniper and mortar fire. In the first few months, 93% of casualties received some form of basic first aid by relatives, friends or others. This percentage fell as the rescuers themselves became targets, as were the few remaining private vehicles and taxis used for transport to hospital. Accurate sniper and mortar fire necessitated a change from the policies of "stay and play" or "resuscitate while transporting" to the simple "scoop and run". In addition, due to the danger of transporting the wounded in daylight, front-line casualty clearing stations were set up. One of the busier stations was hit more than 3,500 times in six months.

Hospital care in Sarajevo was provided by two centres - The University Clinical Centre and the State Hospital. The Clinical Centre suffered irreversible damage to its children's and maternity sections and lost 20% of its beds and significant numbers of medical staff. Therefore many doctors and nurses were moved from destroyed community health centres and clinics to these two facilities. The State Hospital was located in the central part of Sarajevo close to the university and 400m from the city's first defence perimeter. By the middle of 1994 staff here estimated that over 500 rounds of artillery shells had hit the hospital. The aggressor had an accurate knowledge of the layout of the hospital and aimed to knock out the casualty department, central sterile store, operating theatres, radiology department, generator, water supply, pharmacy, blood bank and kitchens. They succeeded to a large degree. All floors from the 4th to the 12th were rendered unusable, and from the 7th to the 12th destroyed. However even some of the intact wards had to remain unoccupied as they were exposed to sniper fire. A red cross was placed on the hospital early in the siege in accordance with the Geneva Convention. Unfortunately the surrounding forces used the cross as an aiming point and it was soon removed. From some of the higher floors of the hospital you could have had a perfect view of the fighting except that, like previous untrained observers, we found that there was usually very little to see. High-powered weapons and high speed fire, camouflage and smokeless explosives in modern warfare render soldiers invisible. Now and then a puff of dust would rise in the city, but with the sound of the impact so delayed that cause and effect seem to be disconnected.

The shelling and constant stream of casualties took their toll resulting in patients lying in beds jammed side-byside with no space between them in corridors and storage rooms. Operations were frequently performed on stretchers in the emergency department. Despite back-up generators and other emergency provisions, the hospital still lost electricity for months at a time. No fuel meant no heating in an area where midday temperatures were still less than zero in winter. Needless to say an intact window was unusual. Little water meant no laundry facilities and that bed clothes, theatre gowns and drapes had to be eventually burned as they eventually posed an infection risk.

I was part of a medical team working in The State Hospital at the time. One particular evening the noise was intense but not unusual with continuous shelling and heavy machine gun fire. Just like the local medical staff, we were all tired. We had arrived to do a specific job, but had been able to accomplish little as day and night we had been forced into providing emergency care to casualties that were pouring into the hospital day and night.

What we were only beginning to experience was another emotion that the local staff had been feeling for more than 12 months, frustration. What we were seeing was a sophisticated society and well resourced medical system experience a sudden and prolonged conflict. The close quarters warfare resulted in a significant loss of physical resources and the massive numbers of military and civilian casualties placed an enormous pressure on medical personnel. Finally there was totally inappropriate and inadequate assistance.

That evening our group set up a charity that became known as IDEALS (International Disaster and Emergency Aid with Long-term Support - www.IDEALS.org.uk) which has 6 trustees that include three for medical expertise, a business expert (who provided substantial initial funding), an influential politician and an accountant.

During the last 17 years, IDEALS has been involved in projects in Bosnia, Pakistan, Sri Lanka and Gaza and at first glance these projects may seem quite disparate. But what they have in common is that they fit our eight fundamental rules for giving aid. These are; 1. Have a particular skill (or get it), 2. Get local information from locals, 3. Plan small and specific projects, 4. Have a limited time-scale (months not years), 5. Bring added value (teaching, equipment, drugs), 6. Avoid dependency (Governmental agencies, NGOs), 7. Be a minimal burden on the local facilities (bring all equipment and personnel), and 8. Always maintain close contact. The reason that rules such as these are important is that the effects of war and disaster are not just from physical and psychological damage but also a breakdown of civic life (education, law and order, commerce, health service) and a loss of education, food, water, heat and medicine. These effects are too great for even the largest organisations and in any case are often beyond our control.

In Bosnia, centred on Sarajevo, and to a lesser extent Mostar, we had 4 main projects. The first 4 years focused on fracture non-union, chronic wound infection and anaesthesia development. The years from 1998-2000 concentrated on long-term development of medical education and sustainable equipment planning. However it is important that a dependency culture does not develop

and towards 2003 we knew that our role should reduce and in any event we were asked to repeat our formula far further away.

A military historian was asked in a radio interview were there fundamental rules of war. Slightly tongue-in-cheek he replied that there were only three; never meddle in Ireland, never ever invade Russia and never ever, ever go near "The Stans" (Afghanistan, Pakistan, Kazakhstan,Kyrgyzstan,Tajikistan,Turkmenistan and Uzbekistan). "The Stans" have proven the graveyard for many a military adventure in history by Alexander the Great , Genghis Khan, the British (twice), the Soviet Union and now the United States led coalition. In 2003, due to our experience and reputation in Bosnia, we were asked to become involved in the frontier region of Peshawar, in the federally administered tribal areas (FATA) of Pakistan on the border with Afghanistan.

The problems in this wild and war torn area are legion. From our perspective our charity could assist the reduction in the extraordinarily high mortality rate from major, or sometimes relatively minor, injuries. This results from the distances to medical facilities, the absence of training in pre-hospital and immediate hospital care and the lack of even basic equipment.

We funded Primary Trauma Care (PTC) instruction in the area. For those not familiar with PTC – it is a system of Acute Trauma Life Support that is free, appropriate to poorly equipped locations and can be cascaded rapidly once a cohort of enthusiastic instructors have been created. We realised that confining this training to the Peshawar region would be suboptimal and now have thousands of medical staff trained in Karachi, Lahore and Quetta, who have formed a supporting fellowship across Pakistan. We didn't know it at the time but this fellowship would prove very useful, very soon.

Like the rest of the world we watched the Asian tsunami in horror on the 26th December 2004. We all had a sense of helplessness. Reports from the vast area affected revealed that the aid priorities were fresh water, food, shelter, logisticians and engineers. We, as a small medical aid organisation, would have little to offer. However in February 2005 we were given a significant donation and asked to see if we could assist in a particular area. We ended up in Tangalle on the southern coast of Sri Lanka. Almost 80% of the coastline had been severely affected. Because of the rapid international response and financial aid there was great hope. Though phase 1 of the recovery process was complete – everything else was falling apart due to political wrangling and corruption, poor communication and coordination.

In Tangalle there was total destruction at the coast and for at least 100m inland. This was highlighted by the nearby greatest train crash in railroad history when The Samudra Devi (Queen of the Sea) was hit by 2 waves resulting in somewhere between 1,500 and 2,500 deaths. The infrastructure was wrecked. The human cost was extraordinary with at least 40,000 dead or missing. However most casualties died immediately and, though the survivors suffered mainly long bone and soft tissue injuries, local medical facilities could cope. It was apparent that the major problem was damage to social infrastructure.

Infrastructure was not our area of expertise but we knew that doing nothing was not an option. We could get the funds, the time and professional assistance. In a very short time we put together a project team to tackle problems in shelter, water and sewage and to make these projects sustainable. In Tangalle the Tamils had been resettled in a camp, which was really just a warehouse full of tents. With little or no sanitary or other facilities, malnutrition and disease were rife. The local School for Blind and Deaf Children, essentially an orphanage, was even worse.

They benefited from a large donation of food and assistance with a new clean water supply and kitchens. In addition some essential local businesses were given professional and financial assistance to return to normal activity including the supply of cattle, fishing nets and building materials. A deep-sea trawler was purchased to replace one that was destroyed in the Tsunami. This allowed the crew of ten to be employed and for their families to be supported - up to one hundred people in total. The supply of this boat included a contract guaranteeing free fish and income to the Blind and Deaf Childrens' school.

Our charity learned a lot of new skills in Sri Lanka but never envisaged that they might again prove so useful, so soon. In October 2005 a devastating earthquake hit Pakistan close to the area where we had based our projects. Ironically, it was caused by movement of the same tectonic plate as that had caused the Asian tsunami. The roughly 70,000 killed and 100,000 injured proved once more that it's building collapse that kills, not the earthquake. Most survivors lived in inaccessible sites, were already impoverished and their rotten buildings had immediately collapsed. More than 19,000 children had died and 50% of the survivors had multiple injuries. In addition numerous patients were found weeks later having had very poor medical treatment by inexperienced overseas volunteers resulting in problems such as septic ulceration and malrotation.

IDEALS trained doctors from the PTC fellowship moved to the area to care for the immediate needs of the injured survivors and appropriate medical equipment was provided. However it was obvious that the most important aid would be shelter.

We targeted a small village called Bedadi and paid for the resettlement of the destitute population into a temporary tent village. This was of high quality and allowed them to survive the succeeding winter with a high standard of living that was disease free. The children's education was also attended to with a temporary school.

In September 2006 IDEALS paid for the purchase of new land for the Bedadi families that freed them from a feudal dependence on corrupt landlords. This permament resettlement has been described by the United Nations High Commission for Refugees (UNHCR) as a unique venture. They moved in on October 17th 2006 and the New Bedadi Village was completed in Autumn 2009. The families now own their houses and cannot be prey to unscrupulous landlords. Skills, which were learned during the building of the village, are now used to gain employment and support the community. The total cost was only £200,000.

On the morning of 27th December 2008, in response to persistent rocket attacks on Israel, the Gaza Strip was attacked by F16 fighters and Apache helicopters. The initial attack lasted only 220 seconds but killed 230 and injured 700. The subsequent invasion lasted 3 weeks resulting in at least 1,166 deaths including 936 civilians, 313 of whom were children.

The invasion and subsequent siege has resulted in massive destruction of livelihoods, agriculture, infrastructure and basic services and has created a culture of dependency. Huge numbers of homes, government buildings and facilities were destroyed. Health facilities were damaged or destroyed including half the hospitals, primary health care centres and many ambulances. Most drinking water is unfit for consumption (hepatitis is rife) and electricity unreliable resulting in the use of small generators which cause burn and blast injuries daily.

In 2009 an organisation called Medical Aid to Palestinians (MAP) asked us to go to Gaza. We were initially very reluctant to do so, not because of danger but because the very act of turning up in Gaza is often interpreted as a political statement. This area is a tinderbox and any charity has a lot to lose by association. But we went, we are still there and delighted to be so. Now we are using our core skills in five projects in complex fracture management, limb reconstruction, anaesthesia and pain management and a large program in the management of chronic disability.

During most of the last 20 years our charity IDEALS has ended up in several regions that continue to suffer the effects of war and disaster. We have learned a lot during that time but some things have never changed. The eight principles we wrote down in June 1994 in the State Hospital, Sarajevo still hold true. But they don't negate the problems

you will encounter over and over again. In areas of disaster you will encounter many war tourists, enthusiastic amateurs and dangerous criminals. You must identify them early and steer clear. Governmental and non-governmental organisations (NGOs) are usually doing their best. It is fashionable to criticise them, particularly those working with or for the United Nations. Most criticism is unfair. However it is true that they frequently don't know what others are doing, they have no chain of information sharing, they cannot leverage off each other, cannot synergize their activities, cannot resolve conflict and often have no sustainability. Some of these organisations seem to define success as the ability to go from one failure to another with no loss of enthusiasm.

We have found that it is worth remembering some basic rules. The first concerns safety and personal safety is usually just common sense. However the only truism is that most reassurance is pointless. Despite all the books and documents published and reassurances given there is no pattern to those who live or die in war. In war people die because they do. There is nothing more to it than that.

The second rule concerns promises. Even for a medical charity, medical assistance is often not the first priority. Safety, water, food and shelter are often of more immediate importance. Therefore never make a promise unless you are certain you can deliver in a reasonable time frame. To the desperate never even hint at the possibility of delivery as this will be taken as a promise.

Finally there is the question of trust. Many victims recognise that above all you are giving them that most precious of commodities, time. But they usually place an enormous trust in you, especially as a doctor. Victims of war and disaster are often victims because of the trust they place in those who, by commission or omission, actually caused their problems in the first place. They and you should be wary. As Machiavelli said *"Put not your trust in princes, bureaucrats or generals – they will plead expedience while spilling your blood from a safe distance"*

Dr Carol Dundon

A Short History of Anaesthesia

In 1796, James Moore, Member of the Surgeons Company, London published a small book thirty pages long entitled "A method of diminishing pain in Surgery". James Moore had devised a nerve compression apparatus. It was rather like a curved carpenter's clamp with a screw adjustment. He showed it to the renowned surgeon John Hunter of St. George's Hospital, London who obligingly produced a patient who needed a below-knee amputation. The patient had lost all his toes and had a large ulcer on his foot.

On the morning of the operation, at a quarter to eleven, Moore began the nerve compression. The limb became numb after half an hour. At a quarter to twelve, Moore gave the patient one grain of opium. A few minutes after twelve, the tourniquet was applied and Hunter performed the amputation.

This trial was considered a success by Moore. There was evidence of a most remarkable diminution of pain, particularly during the first incisions through the skin and muscles, which are generally by far the most severe parts of the operation. The exact date of the trial is not known, but Hunter was surgeon to St George's Hospital from 1768 to 1793.

"A Brief History of Anaesthesia" by Charles T. Jackson M.D. was published in Boston in 1861. It contained a comprehensive account of anaesthesia as it was then practiced. It is 127 pages long and at the beginning, Jackson puts forward his case:

"Whatever removes the exhausting pains arising from the Surgeon's knife adds greatly to the chances of the patient's recovery. Strongly impressed with this belief, for many years, I sought some method of preventing the pain of a surgical operation."

Jackson describes some of the methods used by preceding generations in attempts to relieve pain. Opium was inefficient and dangerous because its systemic effects were too great before it produced any real anaesthesia. A freezing technique with ice could be effective, but could lead to gangrene and pneumonia. Alcohol, causing stupor, had been successful in isolated cases but it was not suitable for routine use. Mesmerism (a form of hypnosis) sometimes worked well but was unreliable.

Dr. Jackson's book shows that the time lapse between the discovery of new agents and their use in practice is incredibly long. Humphrey Davy's suggestion of nitrous oxide as an anaesthetic in 1800 was not used clinically for another forty six years! Chloroform was discovered in 1831 but was not used in practice until sixteen years later – and Ether was the most neglected of all, known for 306 years, it had to wait till the year 1846! However, when these last three agents did finally make it into the unique and powerful world of anaesthesia, they revolutionised surgical practice forever.

The first public demonstration of the efficacy of ether as an anaesthetic was performed by John Collins Warren, Dean of Harvard Medical School, in the Ether Dome, Massachusetts General Hospital (MGH), Boston. Ether was administered by a dentist – William Thomas Green Morton. The date was 16th October 1846. Less than four months later, the following notice appeared in the medical press.

PAINLESS OPERATION
TO THE EDITORS OF THE MEDICAL PRESS.

GENTLEMEN – I think it right to add my testimony to that of others in favour of the inhalation of ether vapour, (when properly administered) as a preventive of pain in surgical operations.

I yesterday amputated the thigh of a patient (by circular incision) for incurable disease of the knee-joint, who did not evince the slightest appearance of pain. It is needless for me to state more than the fact of its wonderful efficacy. The vapour was administered by Surgeon Grattan, dentist, of this city, with an apparatus constructed by himself. I may add, its success astonished me, and I believe all those gentleman present. – I remain, gentlemen, your obedient servant,

GEO. S. COTTER M.D., &c.

Cork, 56, South Mall, January 31st, 1847

Editor's note:
Cotter and Cork OTB - On the Ball

John Woodroffe and the Cork Anatomists

History, when you least expect it, has a charming ability to throw up characters. One such is John Woodroffe who established Cork's first stand-alone School of Anatomy in 1811. A recent exhibition on Woodroffe in the Jennings Gallery in UCC's Health Sciences building presented a vivid picture of his life and times and included an erudite tribute by Professor John Fraher, Professor Emeritus of Anatomy at UCC, to some famous Cork anatomists whose early years must surely have been influenced by Woodroffe's presence. The trouble is that the records don't always yield information on the first steps in a famous career.

Woodroffe provided a thorough grounding in basic medical sciences and gave his students a zeal for study and a hunger for learning. He came to Cork in his mid 20s around the time when Nelson was approaching immortality at Trafalgar. Probably nobody noticed this young Dubliner arriving in Cork to claim his inheritance. His great, great, great grandfather had been Provost of Bandon in 1641 and had three sons who were granted land by Charles II, probably for losses suffered in the 1641 Rebellion. John's portion of the family inheritance was about 700 acres in East Carbery around the town of Ballyneen. He joined the Military Hospital in Cork as a junior surgeon where he was regarded by at least one leading Cork physician as "one of the very lowest rank". He seems to have had two things going for him – a passion for anatomy and a magical way with words.

Before starting his school, he sought advice among the medical profession in Cork – mixed to say the least but it was enough. In 1811, he leased a building in Margaret Street in the South Parish and offered a course of "Anatomical and Surgical Lectures". He seems to have been an overnight success. He welcomed all – aspiring art students or medical students or members of the military. He even offered his introductory lectures to the general public, "specially adapted to a female auditory". In 1815, the war with France having concluded, a doughty reporter of the Cork Mercantile Chronicle dropped into Margaret Street to listen. He begins his report thus: *"Criticism is not intended to form any part of our notice of Dr Woodroffe's Lecture. Upon its matter it would be presumption in any other less acquainted with the subject to offer a contending remark; and as to the manner, we are disposed to pass over his peculiarities and slight defects, and lose them in the recollections of the beauty of his language, and the irresistible truths he impresses on us."* Whatever his mannerisms may have been, John Woodroffe could inspire with words. Imagine being a 15 year old with all life ahead of you and hearing this? *"I will admit that, when the giddy season of boyhood is over, when the star of Science has illumined the darkened chamber of the mind, when, by persevering study and well directed application, the rudiments of the healing Art are fairly acquired, when the memory is stored with fundamental principles of Medical science, when the soil is cultured and the seed is sown, a warmer sun will ripen the intellectual fruits, and more large opportunities and extended practice will mature judgment and teach experience— but without such preparatory acquirements what manifold risks and dangers do you run."*

For nearly 20 years he had the field to himself and in that time a number of pupils passed through his school who went on to fame, if not fortune, in the Victorian era – artists such as Daniel Maclise, Samuel Forde, William Fisher, George Russell Dartnell, the great sculptor John Hogan and surgeons and anatomists such as Joseph Maclise, Richard Butcher and possibly one or more of the Quains. The link between anatomy and art is not surprising for Anatomy has always been a visual science. Joseph Maclise produced some truly stunning images of dissections, drawn from life on stone in a new process called lithography.

Woodroffe was not just an inspiring teacher. He was a hard working surgeon in the South Infirmary – the proceeds of his public lectures all went to the Infirmary – and a tough opponent when crossed. In 1820 he fought "a furious paper war" with William Bullen for his reputation and won. In 1829 he and other medical men (for they were all men in those days) fought a campaign to combine the County Infirmary at Mallow and the North and South Infirmaries in Cork into one General Infirmary and lost. In the course of that campaign he penned this letter in defence of his school: *"I am well aware that to obtain a knowledge of Medicine requires years of serious application, and if I sought by my Lectures to abridge a single day of pupilage or undergraduate study, I should feel myself amenable to Doctor Galwey's censures. I even think the prolonged period now insisted upon at Colleges and Universities, far too limited for the acquirement of the great mass of knowledge necessary to be obtained. I do not then pretend to any shortcut, to any Royal road to Medical Science. Of all acquirements, Anatomy is the most essential, and to the student the most difficult and repulsive, and if he can be accomplished in this necessary rudiment of professional education, previous to his entering a University, the heavy obstacle to his progress is removed, and he can at once apply himself to all the elegancies and refinements of Medical literature. That the Cork school is of essential value in this way has been acknowledge by almost every pupil I ever had; and it is an admitted fact that the most expert Anatomists to be found among the Classes at the University and at the College of Surgeons for some years, are those who commenced their careers of study in this City."*

This exhibition, which uncovered this previously unknown portrait of John Woodroffe (courtesy of his living descendants), does much to bring back a tough and rather appealing character from 150 years of relative oblivion.

Dr Len Amow (A Personal View of an Aortic Dissection)

A surgical experience in Buenos Aires, Argentina – while attending the International Society of Orthopaedic Surgery and Traumatology.

Extracted from *"Present Medical Condition"* (Argerich Hospital, Buenos Aires, October 2006).

"Lennox Amow is a male patient born in the Republic of Trinidad and Tobago. While visiting the country for professional purposes, he suffered syncope and was taken to Fernandez Hospital, where global aphasia and right-side hemi paresis were established. By means of imaging studies (CAT with contrast MRI) he was diagnosed as having DeBakey type A aortic dissection involving aortic arch, ascendant-descendant aorta and the dissection reaching up to right primitive iliac artery. A brain CAT showed neither hemorrhagic injuries nor early signs of ischemia. The patient was urgently taken to Argerich Hospital, being hypertensive on arrival and having severe language disorders regarding production, naming, repetition and comprehension as well as serious motor disorders in the right half of the body. The patient's diagnosis was confirmed and by means of subtraction angiography it was shown that the ascent aorta had been affected from its root to the infrarenal abdominal aorta with moderate valvular insufficiency and extension of dissection up to the left carotid artery and right carotid occlusion.

It was decided that urgent surgery was required. In such surgery the placement of a vascular endo-prosthesis at the root of the ascendant aorta with valvular resuspension and the placement of a seond vascular prosthesis at the arch with closure of the false lumen at the aorta and at both carotid arteries were performed with the use of extracorporeal circulation for 226 minutes, continuous cerebral perfusion by means of cannula insertion of both carotid arteries and controlled hypothermia for brain protection. The patient was taken to ICU with assisted ventilation, marked hemodynamic instability and metabolic acidosis, requiring vasopressors. During the first post surgery hours the patient experienced auricular and ventricular fibrillation requiring defibrillation. The patient's vital signs were normalised in the following hours and his urine output recovered and didn't require dialysis.

The patient became hemodynamically stable on the following days, showing an improvement in his language skills, despite suffering from quadriparesis with muscular hypotonia and requiring assisted ventilation. (He was believed to have polyneuromyopathy of patients in critical condition.) The patient experienced some complications due to his condition, such as late pneumonia associated with ventilation (NAR), bacteremia, urine infection and prolonged assisted ventilation, because of which tracheostomy was performed on September 11.

At present, the patient is lucid, tracheostomised, without assisted ventilation and with partially preserved verbal comprehension. He is unable to move suffering from quadriparesis with right-sided predominance. He is undergoing motor and respiratory rehabilitation, he is under no antibiotic treatment and he may be taken to a rehabilitation centre."

Letter received from Dr Amow – July 2011

After successful surgery, (I say this tongue in cheek), and a period of time in Intensive Care, Intermediate Care, I was considered fit enough to be transferred to rehabilitation medicine at a special physio and occupational centre in the vicinity of Buenos Aires. I had to travel for about 3 hours. Once there I assessed my environment. Locked away in a private area, I thought I could move about just as easily as before surgery.

And so, I rolled over my body closer and closer to the edge of the bed. Then I put my feet over the edge and there was a crashing noise when the rest of my body hit the floor as gravity forced me to fall to the ground. The attendant nurses and staff made sure that such an event never happened again. From then on I had supervised physiotherapy and occupational therapy.

For 5 days a week and on Saturday morning, I was at first exposed to physiotherapy with passive movements of the joints of my upper and lower limbs. Then they proceeded to my trunk and neck to loosen out these joints which had also stiffened up. In the afternoons it was occupational therapy for about 2 hours.

I had noticed that I had more power in my left hand as I could almost clutch all the fingers in a closed fist. My right hand was definitely weak and the IT-P, P-I-P and TIP joints were only half closed and the rest of my fingers remained pointed out.

It was only when I returned to Trinidad at the end of January 2007 that I began my own therapy. I started by holding onto the bed and walking around the bed, holding onto the bed edge or rail. Then I obtained a walking cane and started going away from the bed and into the outside areas. By then the fingers of my right hand were closing more, but not still quite enough.

It was only on my refresher course in driving a vehicle and driving out on my own that I realised I could hold the steering wheel with my right hand and that I could make a firm fist with all the fingers on my right hand.

All this while my personal assistant was teaching me how to write again with my right hand.

Editors note:
Len - Well done and thank you - great fighting spirit.

Ten years in a functional bowel clinic: *making some sense of the complaints that just will not go away* - Professor Eamonn M M Quigley

Gastrointestinal complaints that are not readily explained on the basis of a defined radiological, pathological or biochemical abnormality have been conveniently lumped together as "functional gastrointestinal disorders" (FGIDs) and their sufferers largely dismissed as "functional", beyond help and unworthy of serious scientific consideration. Over the past ten years or more a group of clinicians and scientists at the Alimentary Pharmabiotic Centre (APC) in Cork have attempted to swim against this tide and sought, at a clinical level, to provide some support for those who suffer from these complaints and, at a scientific level, to unravel the complex biology of the FGIDs. While our primary focus has been on irritable bowel syndrome (IBS), our clinical data-base includes the full range of these complaints/ syndromes and has been able to document their impact on clinical and diagnostic services. Outcomes of the latter have included the recognition, firstly, that diagnostic algorithms are poorly developed for these disorders and, secondly, and as a consequence, that some of these patients are overexposed to radiation emanating from diagnostic studies.

IBS-type symptoms are not only common but also non-specific and one of the challenges faced by gastroenterologists on a daily basis is to attempt to interpret the significance of these symptoms when they occur in a patient with a known "organic" disorder such as coeliac disease or inflammatory bowel disease (IBD); our own research would suggest that such symptoms in these contexts should always be regarded as indicative of ongoing activity of the primary disease process, until proven otherwise. Such observations, suggesting that inflammatory processes can produce IBS-type symptoms led to the elaboration of a research question that we have been pursuing in the clinic and in the laboratory for the past several years: could a low grade of inflammation or immune activation (and much lower than would qualify as IBD) be operative in IBS, in general?

What we have found is that this is indeed the case; not only are immunological changes detectable in the mucosa in IBS, but "spill over" into the systemic circulation is also evident through the detection of pro-inflammatory cytokines in serum. The obvious question then arises: what is driving this immune response? The gut flora (microbiota) is a prime suspect and, while it is still early days, evidence is beginning to gather to suggest the presence of subtle changes in these bacterial populations in IBS. Are any of these findings of any clinical significance? Firstly, we believe that there is the potential to develop a biomarker for IBS, something that has been sorely lacking and, secondly, we already have evidence that some therapeutic agents, such as certain probiotics, may owe their efficacy to an anti-inflammatory mechanism. Parallel studies in a number of animal models attempt to dissect the neuro-gastroenterolgical pathways that may mediate the physical and biological impacts of these microbiota-host interactions.

We believe that these are exciting days in what were previously neglected areas, IBS and other FGIDs, and that there is hope for real diagnostic and therapeutic progress. To get to this stage would have been impossible without the hard work of the students, trainees, and research colleagues who actually do the work, the doctors who refer the patients, the nurses, doctors and other health professionals who care for them and, above all, the patients themselves for their patience and cooperation. ■

Baby Steps: *Towards a Better Understanding of Neonatal Brain Injury*

- Dr Niamh Lynch
- Professor Denis O'Sullivan

Fellow (2010 - 2011)

Neonatal Encephalopathy

The area of neonatal neurology is challenging and rewarding, particularly when one remembers that an effective neuroprotective intervention following neonatal brain injury may result in 60 to 70 years or more of improved quality of life following that intervention. Premature and full term infants are vulnerable to brain injury. The focus of my work was to examine the population of infants with neonatal encephalopathy. Encephalopathy can develop in the context of infection, neonatal stroke, or hypoxic ischemic encephalopathy (HIE). Hypoxic ischemic brain injury affects 3-5 infants per 1000 live births. Of these, 0.5-1 per 1000 infants develop symptoms of moderate to severe HIE.

Denis O'Sullivan Fellowship Proposal

My original proposal for the Denis O'Sullivan fellowship aimed to address the question of whether a high number of seizures (seizure burden) contributed further to brain injury in newborns with neonatal encephalopathy. I planned to calculate the number of seizures in newborns with encephalopathy, using continuous video EEG, and to perform MR spectroscopy in addition to the routine MRI of brain that is performed in the first two weeks of life in these newborns. MR spectroscopy provides data on biochemical derangement within the brain. It gives an indication of the ongoing effect of seizures on the brain, and whether or not the seizures are injurious to the developing brain. Establishing if this is the case would lead to greater emphasis on effective seizure control in newborns with encephalopathy.

Challenges

MR spectroscopy was not available in CUH, although at the time of my proposal it was envisaged that the software could be acquired quickly. However, in these difficult economic times, obtaining funding for this expensive software was challenging, and the process was protracted. I persisted in writing grant applications for funding and negotiating with the suppliers and my endeavours paid off, but it took several months, and in the meantime, I decided to modify my research focus.

Modified Proposal

Work is currently underway to identify an effective anti epileptic agent for newborn seizures, which are notoriously difficult to control. It has long been recognised that clinically evident seizures evolve in severity over time in newborns with HIE. Seizures have been described as beginning at about 24 hours of age, and reaching a peak before declining in severity and ceasing by about 72 hours of age. However, it is now realised that clinically evident seizures are only the tip of the iceberg in terms of true seizure burden in newborns with encephalopathy. This is because many seizures in newborns are very subtle, or subclinical. The only way to truly measure the seizure burden in this population is by continuous long term video EEG monitoring.

Recently, a new intervention called therapeutic hypothermia, or 'cooling', has been shown to be effective in improving outcome in newborns with HIE. The reason for its effectiveness is not entirely clear, but it may be partly due to reduction of seizure burden. However, it is only possible to ascertain this if we truly understand how seizures evolve in newborns who have not been cooled.

Benefits

Analysing the evolution of seizures over time in newborns with HIE has three potential benefits. It may identify a therapeutic window during which intervention would have an optimal impact on reduction of seizure burden. It would allow us to avoid incorrectly attributing efficacy to new interventions in the case where the intervention took place at a time when seizure burden may begin

to decrease regardless of therapy. Finally, it provides a benchmark against which we can assess the effect of new and innovative forms of neuroprotection and anti-epileptic medication on evolution of seizure burden in newborns with HIE. In particular, we would like to assess the impact of therapeutic hypothermia on the evolution of seizure burden.

Methods

The Neonatal Brain Research Group is uniquely placed to ascertain whether there is evolution of seizure burden over time as we have EEG data on over 300 infants, born between 2003 and 2011, who have exhibited signs of neonatal encephalopathy or seizures. From this extensive database we identified infants from the period prior to the introduction of therapeutic hypothermia (2003-2006) with HIE and seizures who had a minimum of 48 hours of continuous video EEG monitoring. We then analysed the evolution of seizure burden over time and calculated the distribution of seizure burden using the skewness coefficient.

Results

15 infants were eligible for this study. The results showed that seizure burden evolved over time and that seizures were not evenly distributed over the seizure period. Seizure burden was positively skewed, meaning that there was an accumulation of seizure burden near the beginning of the seizure period. Further statistical analysis showed a short period of high seizure burden followed by a longer period of lower seizure burden.

Conclusions

This study has successfully identified a pattern of temporal evolution of seizure burden in newborn infants with HIE. There is a short period of high seizure burden, followed by a longer period of lower seizure burden. This is the first time that this has been described, and provides important information that will help guide the development and understanding of new forms of treatment and neuroprotection in this fragile population.

Acknowledgements

I would like to thank Dr Brendan Murphy and Professor Geraldine Boylan for their support and guidance during my year as Denis O' Sullivan Fellow. I am grateful to the infants and their parents who have over the years agreed to take part in the research studies conducted by the Neonatal Brain Research Group.

Thanks also to the Children's Medical and Research Foundation in Crumlin and the Irish Institute of Clinical Neurosciences for the grants which facilitated the purchase of MRS software. Many thanks to the Baby Ava Foundation and their generous donation towards the purchase of the MRS software.

I would like to thank my team mates and fellow researches, Dr Evonne Low, Dr Brian Walsh and Dr Irina Korotchikova.

Special thanks to Dr Vicki Livingstone and Dr Nathan Stevenson who were instrumental in helping me bring this study to completion.

Finally, thank you to Professor Denis O'Sullivan, and his colleagues who set up the Denis O'Sullivan Fellowship and UCC Alumni who funded the Denis O'Sullivan Fellowship. ■

Sociology of Health in Childhood - Professor Peter J. Kearney

Sociology has a reputation of being an eccentric discipline that harbours intellectual malcontents. The malcontent is probably more in society than the discipline. Sociology is interesting because it explores how we relate to ourselves and the world and how the world relates to us. It explores what we normally take for granted. The discipline of Sociology became necessary when the grand narratives of religion and politics lost their purchase in the Western world. Christendom was challenged by violent revolutions and the discovery of alternative ways of living in the new world. The sociology of health explores how society impacts on our health, and the place of health in the political agenda. Sociology is important in the Faculty of Medicine and perhaps most so at the extremes of life in Paediatrics and Geriatrics.

Social Wellbeing, Equlibrium and Homeostasis

Social wellbeing is part of the WHO definition of health and is written into the WHO constitution. Most definitions of health require a harmony or a sense of equilibrium as expressed by H.G. Gadamer, the German philosopher who stated that "the doctor's contribution consummates itself by disappearing as soon as the equilibrium of health is restored". In the early seventies there was a minor revolution in paediatrics when there was evidence that childhood cancer and leukaemia could be cured. It came at a cost as it often disrupted whole families and their quality of life. This was an era prior to portacaths and effective antiemetics. Harsh treatments were justified by the real prospect of a cure. Quality of life was initially measured by side effects of treatment, and then by questionnaires that were deemed valid and reliable through repeated testing. The emphasis was on methodology rather than theory but the results were unconvincing. Gadamer's concept of equilibrium is the nearest theory we have to quality of life. Equilibrium links to Claude Bernard's description of the body's constant internal environment, which he called the milieu intérieur. Walter Cannon further developed the concept in 1929, when he recognised that the coordinated physiological reactions maintaining these steady states in the body are complex and peculiar to living organisms. He designated the underlying mechanisms as the process of homeostasis. The principle of homeostatic equilibrium has underpinned biological theory and grounded medical advances in the twentieth century. An eminently successful theory in biology easily generalised to adjacent disciplines such as psychology and ethology, so that homeostasis was understood as the goal of all animal behaviour. Put in another way, the homeostatic proposition suggested that the most important fact about living things is that they remain alive. Contemporary health practitioners still rely on the principle of homeostasis because it enables them to interpret various laboratory tests. Deviations from established biochemical norms are then a failure of homeostasis indicating some kind of malfunction. The result of the homeostatic inquiry is a dichotomy – it is either normal or abnormal. Homeostasis is the principal that underpins the pathogenic mode of assessment. The pathogenic paradigm dominates clinical practice and health research in the first world. The paradigm worked for scientific medicine, but leaves a sense of disappointment when applied to research about quality of life.

Pathogenesis and Salutogenesis

In the Faculty of Medicine, the problems of pathogenic disease are solved in an orderly way through eliciting symptoms and signs, interpreting these with the aid of biological samples and images, arriving at a diagnosis and prescribing appropriate therapies. It is a reactive process that combats pathogens. Reliance on pathology has been very successful in solving problems of ill health, but does not work well when researching quality of life. Salutogenesis is an alternative way of conceptualising health and was first described by Antonovsky. Aaron Antonovsky (1922-1994) was an American medical sociologist who spent most of his academic life in Israel. He introduced the concept of salutogenesis, because he found that some female survivors of the holocaust could still enjoy life to the full. He conceived salutogenesis as a proactive process of meaningful engagement with the world, which promoted a holistic sense of coherence even in the face of unspeakable suffering. He noted that disease and stress are so ubiquitous that a risk free ideal of health was a hopeless ambition. His key insight was that the causes of health are independent of and separate from the causes of disease. Pathology and its classifications depend on the principle of homeostasis, so that the existence of pathology can be defined in terms of deviation from the norm when the self correcting constancy of the milieu intérieur cannot be maintained. Pathology is a failure of homeostasis. Antonovsky understood that there was more to life than biological equilibrium.

Health as a Continuous Variable

The pathogenic mode of thought is to dichotomise. It is divisive in the social domain and causes trouble. The doctor's note has to declare that the worker is either sick or healthy. The salutogenic perspective is holistic. It sees health as a continuous variable that vacillates between health-ease and dis-ease. Health is not one or the other. It is more like the Irish word *cuibheasach*, that implies so-so, or somewhere in between complete health and fatally ill. There is a modicum of health present even when one is at death's door. Salutogenesis is founded on the principle of heterostasis that seeks optimal experiences which promote joie de vivre. It is an exuberance rather than an equilibrium. A heterostatic understanding of health is therefore not an ideal, unlike the ideal norms of homeostasis, which apply to basic physiology. Antonovsky placed salutogenesis under the second law of thermodynamics – the idea of entropic doom – disruption and dissolution are our fate; but a salutogenic approach to life counters entropy and directs us towards order rather than disorder. It accepts that there are risk factors whether lifestyle or pathogens, which have to be encountered; but in salutogenesis the focus is on resources that tilt the vacillating continuum of health towards quality of life. The problems of suffering and stress are omnipresent, but in a salutogenic frame, they are challenges to be overcome. The salutogenic frame prompts a response that strengthens rather than weakens the affected. There are situations when a pathogenic response is appropriate but it is subordinate to and part of salutogenesis.

Sense of Coherence

Professor Antonovsky did not dismiss the effects of pathogenesis and the consequent need for the correction of deficits and the treatments of dis-ease; but suggested that it was more important for social life to seek health-ease through a meaningful appraisal of present circumstances that could lead to a better understanding and management of problems. He suggested that the intertwining of comprehensibility, meaningfulness and manageability can lead to a sense of coherence that orientates engagement with life. The process of understanding the situation and accepting challenges as meaningful could prompt active management of resources. Antonovsky described generalised resistance resources that embrace personal, social and cultural factors to enhance the development of a sense of coherence in a lifetime. Our sense of coherence uses our resources to overcome life's challenges.

Flow

A sense of coherence is the key concept of salutogenesis. Csikszentmihalyi's concept of flow may assist elaboration of a sense of coherence. Lutz suggests that flow and a sense of coherence are different dimensions of the same phenomenon. Both flow and a sense of coherence are matters of focused attention – a tunnel vision of engagement with the task in hand that blinkers self awareness. Life repeatedly throws up challenges that can be interpreted as an opportunity or a threat. A strong sense of coherence tilts engagement with the challenge towards an opportunity for flow, whilst experiences of flow in turn strengthen a sense of coherence – a virtuous circle. Flow is a sense of mastery when challenges are overcome despite stretching participants to the limits of their capability. Lutz envisages flow on a vertical axis and time on a horizontal axis as repeated experiences of flow graph a personal sense of coherence. A sense of coherence then is both a product and a resource for meeting challenges. Lutz's proposal to integrate flow and a sense of coherence resolves the issue into a reciprocal relationship. A strong sense of coherence enables flow experiences in the future. Flow may happen spontaneously, but it is much more likely that it will happen in a structured activity. The etymology of flow comes from the German meaning flood and suggests an abundant supply. The experience is often referred to as a natural high and athletes refer to it as being in the zone. Flow is a pleasant state of reduced self awareness to the point of self forgetfulness. Flow can be an individual experience but research has suggested that it is more satisfying when experienced as a social event. According to Csikszentmihalyi flow is an experience of timeless self forgetfulness, associated with total involvement and focussed attention on the task in hand which demands a balanced challenge-skill load. There is anxiety if the challenge is too great and boredom when the challenge is trivial. His research identified flow in both work and recreation and gave examples of surgeons accomplishing difficult operations, Roger Federer playing in Wimbledon and rock climbers on the North face of the Eiger.

Barretstown

The lifestyle behaviour of adult survivors of childhood cancer has been found to be more conservative than their peers. They smoke and drink less. They have less risk taking behaviour, marriage and employment even though their education is on par with their peers. At first glance the lifestyle of survivors appears to be good and healthy, but most observers think that it represents non participation in normal risk behaviour – a type of self imposed social exclusion. Children attending the leukaemia clinic at the Mercy University Hospital appeared changed after ten days in Barretstown. The change was visible to parents, Paediatric Oncology Nurses and Paediatricians. Interviews with alumni of holiday camps for seriously ill children (Barretstown and the Painted Turtle) suggest that participation in these camps is a salutogenic experience that may reverse the social exclusion of chronic severe childhood illnesses. ■

MPS - *Medical Protection Society* - Dr Mary Favier

As a board member of the Medical Protection Society for the last six years I have been privileged to gain an insight in to the area of medical indemnity both in Ireland and worldwide. MPS is a not-for-profit mutual owned by the membership, and as the largest Irish and international provider of indemnity cover, it has a wealth of experience in dealing with litigation and complaints against doctors and dentists. The board of MPS oversees all of the company's operations and exercises discretion so to offer the best protection and support to both individual doctors and the membership in general.

The MPS issue I am most commonly asked about is 'how not to get sued?' MPS continually examines how and why doctors get sued and aims through its educational programmes to address the important issues. In a nutshell prevention is about maintaining good communication with patients, addressing mistakes when they occur and documenting the high standard of practice that is so often delivered but not recorded. As a general rule, doctors who keep themselves up to date with developments in their field, are open to comparison with colleagues and encourage their own work to be audited, are substantially less likely to be sued than those who don't. Open, honest communication with patients that doesn't disappear when an adverse event occurs is fundamental to litigation prevention. Acknowledging mistakes or standards that were not met and making a commitment to a patient and their family that every effort will be made to prevent it happening to somebody else, is very much part of why some doctors and services do not get sued when comparable ones do. However sometimes medical errors occur in circumstances where there is no putting it right. Whatever the cause, MPS offers ongoing professional medico-legal support to individual doctors and dentists. This is professional support that is available even if it is many, many years after the event. A reassurance we all need but hope never to have to avail of. ■

Alumni support for medical research enables ongoing investigation and discovery.

Alimentary Pharmabiotic Centre (APC)

Established 2003 - Professor Fergus Shanahan

www.ucc.ie/research/apc

With a cohort of 120 microbiologists, immunologists food scientists, gastroenterologists, psychiatrists and pharmacologists, the ***Alimentary Pharmabiotic Centre*** (APC) has a unique blend of clinicians, clinician-scientists and basic scientists working together to understand the complex environment of the gastrointestinal tract and its microbial community. Six research themes are led by 22 Principal Investigators, internationally recognised in their areas of expertise, who create an exceptional collaborative working environment. APC postgraduate and postdoctoral training is also central to the development of the scientific leaders of tomorrow. The scope of the research on host-microbe interactions has relevance to a range of inflammatory, infectious and other disorders within and beyond the gut, as well as to health maintenance. In addition, the intestinal microbiota represents a rich repository of biologically active material from which bioactives can be mined for novel drug discovery or for use as functional food ingredients.

University College Cork is ranked number 2 in the global Thomson Reuters Science Watch for probiotics research, primarily due to publications from researchers in the APC. The APC aims to deliver innovative research that establishes Ireland as a centre of excellence in GI health, to help the development of indigenous industry and to attract multi-national companies to Ireland to instigate collaborative research programmes. The work of the APC is of tangible importance to several industries, including human health maintenance, agriculture, and animal husbandry, and is pitched at the interface of the food and pharmaceutical sectors. There are two very significant industry partners involved in the APC research programme – Alimentary Health Ltd., an Irish biotech company, and GlaxoSmithKline, a multinational pharmaceutical company, both of which collaborate in a very significant way, including having staff embedded in the APC research teams. Among the key achievements of the APC are the licensing of Thuricin CD, a novel naturally occurring antibiotic, to Irish biotechnology company Alimentary Health Ltd and the launch of Align® (bifantis) in the USA. This year Professor Shanahan was invited to deliver the AGA distinguished Mort Grossman lecture.

"The Alimentary Pharmabiotic Centre (APC) is about people. It is about shared minds, shared resources and multidisciplinary teams. It is about the creation of an environment conducive to learning, research and innovation. The APC is also keen to embrace potential new industry collaborators, where research synergies and complementary strengths exist, and sees this as a means to develop Ireland's industrial R&D base. The APC aspires to being an agent of change and a contributor to the development of a knowledge-based economy in Ireland"

Cork Cancer Research Centre (CCRC)

Established 1999 - Professor Gerald O'Sullivan

www.ccrc.ie

Cork Cancer Research Centre (CCRC) is a multi-disciplinary organisation that investigates major issues concerning the genesis, progression and ultimately the treatment of cancer. Founded twelve years ago it is a partnership between the University and the Teaching Hospitals that provides a research continuum from laboratory studies through to clinical investigation and application. Our research endeavours extend from discovery science through to design of new treatments and to clinical delivery, where we study treatment efficacy and mechanism. Our efforts are predominantly directed towards control of incurable cancer. We are very gratified by the progress that has been made in the Centre and are very optimistic about some of the current programmes which include:

- Cell Death and Survival Mechanisms and their role in Cancer Drug Resistance
- Development of Novel Therapeutics and related Delivery Devices
- Immuno-gene Therapy of Cancer – approaching clinical application
- Oncolytic Viral Therapy of Cancer particularly involving Head and Neck and Lung – Clinical Trial Stage
- Leukaemia – Treatment Resistance – Mechanism and Therapeutic Targeting

Critical to the success of CCRC is the depth and relevance of the research, the strength of our doctorate programmes for basic science and clinical graduate students, together with the engagement of collaborating clinical investigators at multiple teaching hospitals in Ireland and abroad including; Beaumont Hospital, St. Vincent's University Hospital, Mercy University Hospital, Cork University Hospital, University College Cork, University College Dublin, National University of Ireland Galway, Royal College of Surgeons in Ireland, Trinity College Dublin, Queens University Belfast, Tyndall Institute, New York University, Weill Cornell Medical College, UCLA, Brigham and Women's Hospital Boston and Harvard Medical School and the Marsden Clinic London. The research work carried out at the Centre has already translated into five unique clinical studies with three further trials due to commence this year. From our modest beginnings with only two employees, the Centre has rapidly expanded in both size and significance, while still remembering the central tenet of our task: "To advance new cancer treatments through research". CCRC staff are located in laboratories and offices at the Mercy University Hospital, Cork University Hospital and the Leslie C. Quick Jr. Laboratory, Biosciences Institute, UCC. Funds for the Centre are generated through research grants, voluntary fundraising efforts and private donations.

"While we are very successful in securing competitive grant funding our work is heavily dependent on voluntary support from charitable and philanthropic sources and directly from the public. We cannot continue this work without external support. This year after his visit to our laboratory, Nobel Laureate Dr. James Watson himself made a personal donation to our research. It is humbling and motivating to think someone of his calibre recognises the contribution that we are making from our Centre here in Cork."

Centre for Research in Vascular Biology (CRVB)

Established 2005 - Professor Noel Caplice www.crvb.eu

At the ***Centre for Research in Vascular Biology*** (CRVB) a multi-disciplinary team of 20 basic scientists, animal physiologists and clinical researchers address fundamental questions in vascular stem cell biology, atherosclerosis and vascular remodelling. Emphasis is placed on the translation of ideas to the clinical cardiovascular space in areas of novel diagnostics and therapeutics in the field of vascular biology, stem cells, and tissue engineering.

The state-of-the-art Centre was established with the assistance of more than €15 million in international peer-reviewed funding.

A recent extramural review of the lab by leading world experts in cardiovascular stem cell research placed the CRVB amongst a handful of comparable centres with the capability to translate on site from bench to bedside novel concepts in vascular progenitor biology. Researchers at the Centre have been awarded Young Investigator Awards at the Irish Cardiac Society and the American College of Cardiology meetings. The Centre has also published a large number of papers in prestigious journals including Circulation, Circulation Research, ATVB, JACC and FASEB journal.

The CRVB basic research lab at UCC develops bench concepts for clinical translation and has generated multiple patent filings and invention disclosures over the past 5 years. Novel devices in stenting and tissue repair have been developed and novel small molecule and protein approaches to myocardial infarct repair have been translated from proof of concept to commencement of clinical trials at Cork University Hospital.

"We look forward to building on our first 5 years of success at UCC and hope to consolidate over the next 5 years these gains integrating more effectively with our local clinical colleagues and with national and international translational trends in convergence device and small molecule technology development in the cardiovascular field."

National Perinatal Epidemiology Centre (NPEC)

Established 2007 - Professor Richard Greene

www.ucc.ie/en/ npec

The ***National Perinatal Epidemiology Centre*** (NPEC) is based in Cork University Maternity Hospital and is under the directorship of Prof. Richard A. Greene. Established in 2007 and funded by the HSE, its overall objective is to translate outcome data from Irish maternity hospitals and evidence-based best practice into improved clinical services for Irish mothers and babies.

Currently, the staff at the NPEC are working on projects concerning maternal morbidity; neonatal morbidity and survival; and the impacts of maternal experiences on perinatal (pertaining to the period immediately before and after birth) health outcomes; as well as formulating and implementing systems for the reporting of all perinatal mortalities and maternal morbidities occurring in Ireland's 20 maternity units.

To date, the NPEC has set up three specialist groups in order to examine, on a national basis, specific subjects in fine detail. These include the Perinatal Mortality Group, which collects and reports information on all babies greater than 500g delivering without life, and any live born baby dying within 28 days after delivery. The Maternal Morbidity Group looks at cases of severe maternal morbidity; and the NPEC Advisory Group advises and supports the NPEC in the achievement of its defined mission and objectives.

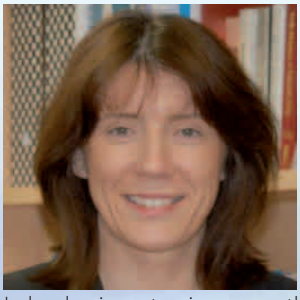
Additionally, the Centre is collaborating with the Self-Employed Community Midwives to develop a perinatal surveillance system for home birth deliveries. Furthermore, the NPEC holds the license for access to the Vermont Oxford Network in Ireland, a collaboration of healthcare professionals dedicated to improving the medical care of new-born infants.The NPEC is committed to expanding expertise in perinatal health, and is therefore hosting two Health Research Board PhD scholars in Health Services Research. Through appropriate training and supervision, the NPEC hopes to secure high-calibre research in maternal and child health.

"Each year, an estimated 70,000 women give birth in Ireland. Funding is vital in order that the NPEC can proceed with its mission to improve the health and well-being of all Irish mothers and babies, by translating epidemiological data and testing new treatments to enable well-informed decisions about reproduction and perinatal health."

Neonatal Brain Research Group (NBRG)

Established 2003 - Professor Geraldine Boylan

www.ucc.ie/en/neonatalbrain



The Neonatal Brain Research Group (NBRG) at University College Cork and Cork University Maternity Hospital in Ireland aims to improve the long term health outcomes of new-born babies through early and accurate detection of neurological problems. Established in 2003, the NBRG is led by neurophysiologist Professor Geraldine Boylan and includes scientists, clinicians, nurses, computer scientists and engineers.

The group works to develop technology that will have a very direct and tangible impact on the diagnosis and treatment of new-born babies suffering from neonatal seizures and other neurological conditions.

Seizures in new-born babies, commonly caused by problems such as lack of oxygen, haemorrhage, meningitis, infection and strokes, are often missed because babies do not always exhibit obvious clinical signs during seizures. The neonatal brain is particularly vulnerable to seizures which can lead to life-long neuro-developmental deficits. The best tool for diagnosing seizures is the electroencephalogram (EEG), a test which uses electrodes placed on the surface of the scalp to measure the electrical activity of the brain. Neonatal EEG provides a sensitive, real time, continuous measure of brain function.

EEG recordings must be interpreted by neurophysiologists who are expert in neonatal EEG analysis. A worldwide shortage of this expertise currently exists. Through research the NBRG has patented an automated seizure detection algorithm and aims to integrate this algorithm into common neonatal cot side monitors so that problems in new-borns can be detected as soon as possible.

Also in development is a web based tool for remote diagnosis so that the physiological data from new-born babies can be sent to the expert for interpretation regardless of their location. The group are also integrating this technology into mobile phone applications. The NBRG is currently co-directing the NEMO study, the largest multicentre European clinical trial of neonatal seizures and their treatment which is funded by the European Union under the FP7 programme (http://www.nemo-europe.com).

"Seizures are the most common neurological problem in new-born babies worldwide and are a very worrying sign for parents and clinicians. Urgent diagnosis and treatment is essential to prevent lifelong neurological problems. Our research is vital in helping us understand the new-born brain and to recognise problems early so that appropriate treatments can be instigated quickly. As babies can be born at any time of day or night we strive to maintain a 24/7 rota so that a member of staff can always be available to monitor new-born babies at Cork University Maternity Hospital. We urgently need your help to raise funds to provide this service and the necessary monitoring equipment."

Appreciations

Mr John Blake (1932-2011)

John Blake, who died recently, was one of the most brilliant medical professionals of our time and someone who, through tireless campaigning, saved the sight of many road crash survivors. He was, for many years, one of Ireland's most eminent consultant ophthalmic surgeons.

His campaigning for the outlawing of toughened glass in car windscreens in Ireland in the Eighties led to a dramatic decrease in eye perforations.

John Blake, who was described as "one of the true scholars and gentlemen of Irish medicine" by Professor Barry O'Donnell in his book on the Royal College of Surgeons in Ireland, was born in Cork in 1932 into a medical family. His father, a GP, died when John was 11 and the family struggled financially for some time. With money in short supply, only a scholarship could ensure his third level education and this proved to be no difficulty to the dedicated student.

Educated at Presentation Brothers College in Cork, he attained first place in Ireland in Mathematics in the Leaving Certificate and won a scholarship to UCC's medical school. He also won the Cork Corporation scholarship, the Honan scholarship and later the Ainsworth scholarship for young surgeons.

While studying in UCC, John met Eithne Power from Kiltealy in Co Wexford. Eithne was every bit a match for him as she also topped her class in medicine in the year behind him. They were in their 52nd year of a very happy marriage when John died on January 9.

John did his ophthalmology training in Nottingham Eye & Ear Hospital, studied in the Royal Eye Hospital and later worked in Moorfields Eye Hospital in London.

Returning to Dublin, he succeeded Professor Lavery in Our Lady's Hospital for Sick Children in Crumlin and the Royal Victoria Eye and Ear Hospital where he would later become chairman of the medical board. In 1971 he joined the staff of St Vincent's hospital, at the time the hospital moved to Elm Park in Donnybrook.

While working as an eye surgeon in the UK and Ireland, he was disturbed at the number of serious eye injuries arising from sometimes minor car accidents compared with the US and Canada. Laminated glass was used in American cars whereas Europe continued to use toughened glass that shattered on impact.

John continued to research this problem and pointed out to the Irish government that the natural progression of a sudden impact virtually assured that the head of a front-seat car passenger would hit the windscreen, smash through it and end up with their eyes on, or level with the window fitting and the remaining shards of glass.

He wrote a definitive paper "Road Blindness" on the subject which was published in the British Medical Journal in 1983 and lobbied extensively to change the law. The Irish government eventually relented.

Prior to 1986, more than a hundred eye perforations from road traffic accidents were seen every year. Nowadays, with many more accidents, that figure has fallen to about three per year.

He was President of the Irish Ophthalmological Society when it amalgamated with the Faculty of Ophthalmology to form the Irish College of Ophthalmologists and was at the forefront of diplomacy in those negotiations.

John Blake was everything you wanted in a consultant surgeon: extremely well read, professional, courteous and competent at nearly everything he turned his hand to. He worked tirelessly, loved helping patients and they loved him. Always helpful to his colleagues, his opinion was highly respected by them. Privately, he was a warm and devoted family man He loved the company of others but family always took priority. It isn't any great surprise that all five Blake children should join the medical profession.

A member of Elm Park and Woodenbridge Golf Clubs and Donnybrook and Fitzwilliam Tennis Clubs, John's other passions were architecture and opera. He was a regular on the golf course on a Sunday morning with his friend and colleague Joe Walsh, and it was the routine games of tennis that kept him fit into his later years.

He suffered Alzheimer's towards the end of his life, but was supported greatly by his family and friends.

John Blake is survived by his wife Eithne, children Alison, Richard, Patricia, Michael and Gavin and his brother Tom, as well as 14 grandchildren.

RE

Dr Jim Brosnan (1930-2011)

Dr Jim Brosnan, who has died aged 81, played Gaelic football with Kerry, a county where players are measured in terms of All-Ireland medals. By that exacting yardstick, he was revered for his immense contribution to the game both on and off the playing field.

In the annals of Kerry football, the Brosnans of Moyvane, at the northern end of the county, were a family to be reckoned with, and he was a powerful, direct and fearless player. Built like a tank, men hopped off him on the field.

The holder of two All-Ireland senior medals with Kerry, he won the first in 1953 and the second in 1955 when he was flown home for the game from New York, where he was advancing his medical studies at the time. He scored two second-half points that were to turn the classic game against Dublin in Kerry's favour.

He also held three national league medals, three inter-varsity Sigerson Cup medals, two with UCC and one with UCD, and was named on the Sigerson Cup Team of the Century.

His brother Michael, also a doctor, who died in London last December aged 79, captained the Kerry minor team to All-Ireland success in 1950 and won a Sigerson Cup medal in 1952 and an All-Ireland senior medal in 1953. Along with their brother Jerry, the Brosnans were the backbone of the Moyvane team.

Their father, the legendary Con Brosnan, was an outstanding footballer with six senior All-Ireland medals to his name between 1923 and 1932. Significantly, although an officer in the Free State Army, he co-operated with former internee Joe Barrett, regarded as Kerry's greatest full-back, in ironing out simmering Civil War animosities in the county.

Having blended rival factions from both sides of the political spectrum into a united and winning Kerry team, Barrett ceded his captaincy to Brosnan in 1931, leading to a life-long friendship.

Making the virtually unheard of move from Moyvane to Dingle, Dr Jim, as he was known locally, served as a GP in the west Kerry Gaeltacht where football is called "caid" and he became a fluent Irish speaker.

A man who spoke his mind, he could be direct, even brusque, but is remembered by former patients as an excellent and much loved doctor. He also served as medical officer at St Elisabeth's Hospital.

A story that he liked to tell, with a touch of Gaeltacht humour, involves an elderly patient who brought him two forms to sign: one was an eyesight certificate for renewal of his driving licence and the other was for the blind pension. He never divulged the outcome.

After retiring as a player, Dr Jim became chairman of the county board and proved a superb administrator. He played a pivotal role in creating a county league system for the Kerry clubs, giving the players a chance to play football throughout the year.

The envy of other counties, it has been a cornerstone of Kerry's development as the most successful football county in the history of the GAA.

He also coached All-Ireland-winning Kerry minor teams in 1962 and 1963 and was instrumental in setting up Bord na nÓg

to bring players at a young age into the county setting. He was also involved in the development of Austin Stack Park in Tralee.

A man before his time, he believed players were paramount to the success of the GAA and saw to it that their interests should not be neglected. Aptly, some of the greatest players of all time, among them Kerry's Mick O'Connell and Seán O'Neill of Down, attended his funeral.

Having served the people of the Corcha Dhuibhne peninsula as a doctor for more than 40 years, he retired at the age of 75 in 2005.

He is survived by his wife Kitty, their sons Conor, Barry and Seán and his brother Jerry.

Dr John Danis (1930-2010)

Dr. John Danis (M.B. 1962) was well known for his contributions to UCC and especially to the Medical College. Because of this, he was well known and loved by the administration, teachers and fellow students.

John was born September 17, 1930 in Chelsea, Massachusetts, a suburb of Boston. He entered Brandeis University in 1950 where he earned his B.S. degree. After graduation he entered the United States Army. In 1957 John entered Medical School at UCC. He knew little about Ireland at that time, but took the opportunity to come to Cork to begin his medical career. He went back home in 1959 to marry his sweetheart, Betty, and they both sailed for Cork. They lived in Bishopstown until John's graduation in 1962. Their door was never locked and their home was often visited by fellow students and many Corkonians.

Following his graduation in 1962, John returned to the Boston area to begin his residency in Family Practice. In 1964 John opened his practice of family medicine which continued until his retirement. John was also active at his hospital where he was Chief of Staff and head of the Department of Family Practice. John was very active in Continuing Medical Education in both Cork and North America.

John and Betty's house was always open to visitors and if you were from Cork, you were well received. For several years medical students would spend their summers with John and Betty while they did externships that John had arranged for them at Boston area hospitals.

John always had a deep desire to give something back to UCC for giving him the quality education he received, John initiated the development of the Medical School Alumni, along with North American physicians who graduated from UCC. "Friends of UCC" was formed for the purpose of raising funds for the Medical School and to begin a Continuing Medical Education program. The core group besides John was Dr. Charles O'Connell, Dr. Chris Walsh, Dr. Jim O'Brien and myself. A group of UCC graduates in Cork was formed to solicit funds from graduates all over the world. We met twice a year in Cork for many years. John was responsible for setting up CME's with the help of his UCC counterparts. He also was instrumental in raising money to begin the Denis O'Sullivan Fellowship, a successful program to help those doing research in a scientific program. John had a great admiration for his fellow classmates. He was the glue that kept them all together for all those years after graduation, right up to his death.

John is survived by his wife, Betty, and their three children. Myla, born at the Bon Secour Hospital, Cork, Ian and David and seven grandchildren.
BOD

Dr Derry Gleeson (1922-2011)

Derry Gleeson, who has died aged 88, was a past president of the Irish Medical Association, a former vice-chairman of the Irish Medical Council and an Ireland and Munster rugby selector.

Born in 1922 in Nenagh, Co Tipperary, he was the son of Jeremiah Gleeson and his wife Mary (née Murphy). His father was a local government inspector and was subsequently posted to Kilkenny and Clonmel.

When he was nine, the family moved to Cork. He attended Presentation College, making the senior cup team and matriculating in his final year. The latter was a remarkable achievement as he was only 15 at the time.

He entered University College Cork medical school without sitting the Leaving Certificate. There he was President of the students' council and active in the medical society and rugby club.

He played for Munster against an Army XV during the Emergency.

Graduating in 1944, he became an intern at Sheffield Royal Infirmary and gained further hospital experience in the area in preparation for a career in general practice. He returned to Ireland to take up an appointment as a senior house officer in obstetrics at the National Maternity Hospital, during which time he played rugby with Clontarf FC.

Following locum and public health appointments in Ennis, Co Clare, he was appointed dispensary doctor in Labesheeda, Kildysart, Co Clare, in 1952. He played Gaelic football with the local club. In 1955, he was appointed dispensary doctor in Ballylinan, Co Laois, and played rugby with Athy FC.

In 1958, he returned to Cork as dispensary doctor in the Grattan Street area. He also opened surgeries in St Mary's Road and Bishopstown. On his return to Cork he joined UCC rugby club and was coach/selector of the first and second teams. He was a Munster selector for most of the 1960s, when his fellow selectors included Paddy O'Callaghan, Jim Kiernan and Tom Clifford.

He was an Irish selector from 1969 to 1972, and his fellow members of the "Big Five" included coach Ronnie Dawson, Dave O'Leary and Noel Henderson. He served as president of the UCC club from 1975 to 1977.

In the mid-1970s he became involved in medical politics. In 1976 he was a member of an Irish Medical Association delegation to China, and he was elected president of the Association in 1977.

Elected to the Medical Council in 1979, he was vice-chairman from 1984 to 1989 during which time he also served as chairman of the ethics council.

A member of the Cork and Waterville golf clubs, he had a wide range of friends and enjoyed a nightly pint in his local hostelry.

Predeceased by his wife Margaret (née O'Gorman) in 2004, he is survived by his sons Dermot, John and Colin and daughter Fiona. All three sons followed him into the medical profession.

Mr John Kenefick (1937-2011)

John was born on 10th February 1937 and died on 14th September 2011 in Great Billing, Northamptonshire.

He was educated in Presentation Brothers College and University College Cork where he qualified in medicine in 1960.

He did his intern year in the Mercy Hospital and worked under Mr. John Kelly, Mr. John Kiely and Mr. Kevin Kearney. They were excellent surgeons and soon stimulated John to take up a surgical career.

He then went to London to work at the age of 25. He worked as an SHO first in the North Middlesex Hospital for 3 years under Mr. Tom Henerby. John thought an awful lot of Mr. Henerby who was a general surgeon in the wonderful North Middlesex Hospital. He learned a lot of general surgery from him. Mr. Henerby was Irish and originally came from Waterford.

Next he got a job in the Royal Free Hospital as a Registrar and Senior Registrar and became a Consultant in Barnet General Hospital in North London in 1974. He also had rooms in Harley Street. He was lucky to build up a very good practice in both places until he was taken ill in 1994.

To sum up his career in London I think I will read a letter which I got from Lionel Gracey who was John's Chief in the Royal Free Hospital. He, like Mr. Henerby, was a wonderful surgeon and teacher of whom John thought the world.

Mr. Gracie said that Johnny came to us at the Royal Free Hospital in London, first as a Registrar and then as our Senior Registrar in Surgery. From the start it was clear that he possessed an exceptional surgical talent. This was based not only on his surgical, diagnostic and technical skills but also on his warm humanity and rock like integrity. This drove him to work with a devotion to the welfare of his patients which went far beyond the call of duty.

He carried all these virtues into his work as a Consultant Surgeon at the Barnet General Hospital where he inaugurated a much needed but intensely demanding Vascular service.

I have no doubt that the exhausting nature of this extremely branch of Surgery contributed to his tragic and premature stroke and subsequent incapacity.

John was proud of his alma mater in U.C.C. and he kept in touch with it during his active Surgical career. He had medical students over every summer to learn clinical skills.

I know from word of mouth that they loved going there and that they were treated exceptionally well by him.

He was also the London Representative of the U.C.C. Medical Alumni and chaired the meeting they had there in early 1990.

John was a keen sportsman. He played senior rugby for PBC and UCC senior team where he got his colours.

He was a scrum half and his out half was his great friend for life Noel Buckley.

He was a single handicap golfer and was an active member of South Herts Golf Club opposite his home in Totteridge in North London.

I had the pleasure of playing many enjoyable rounds of golf with Johnny there and also down in Devon.

Shooting and fishing were also great interests of his. In his school days he was a great friend of Jim and Tommy Kiernan and I remember him going shooting and fishing with Jim and Tommy Kiernan and with Mr. Kiernan senior. He enjoyed those times very much.

Among his very close friends and class mates in UCC were P.E. Kiely, Jim McKenna, Barry Keane the world famous Paediatric Cardiologist in Boston, Frank Golden who became a world expert in the treatment of hypothermia and Terry O'Callaghan.

He also became a great friend of Richard (Dick) Walsh the Anaesthetist in the Mercy during his Intern year there and he went shooting with him at least once a week. He loved this as well. He bore his long illness with great forbearance and he managed a further 10 years of good quality life. His death is deeply mourned by patients and colleagues alike.

The family attended a requiem Mass in the lovely church in Great Billing on the Wednesday before we received John home. Both Frank Golden and Sean Corkery, who is a Paediatric Surgeon in Birmingham, were at the ceremony and it was great to see them there. They both live in England.

We also had the opportunity to meet many of Johnny's great friends from both London and Northampton including his old surgical colleagues, the theatre sisters and staff of all grades with whom he worked.

John was returned to Ireland on 29th September and requiem Mass was concelebrated by Archdeacon Murphy O'Connor and the Parish Priest of The Descent of the Holy Ghost Fr. Twomey.

Even though John had not lived on a permanent basis in Ireland for up to 50 years, there was a large turn out at his funeral which gave his family great solace.
CK

Dr PJ McGrath (1935 - 2011)

PJ McGrath came from a farming background in Killerig, Co Carlow. He was educated at Knockbeg College. A brilliant undergraduate career ensued at Maynooth, where he was ordained in 1961. Postgraduate studies followed at Louvain and Oxford.

His doctorate was obtained from Louvain *avec grande distinction* in 1964. In the same year he became professor of philosophy at St Patrick's College, Carlow, and went on to hold the chair of metaphysics at St Patrick's College, Maynooth, from 1968 to 1977. A philosopher of high distinction, his research was mainly concerned with moral philosophy, ethics and the philosophy of religion. His books include *The Nature of Moral Judgement, The Objectivity of Morals* (both on moral philosophy) and, on the philosophy of religion, *Believing in God* and *The Justification of Religious Belief.* His published articles appeared in *Mind, The Philosophical Quarterly, Analysis, Logica, The Furrow* and *Religious Studies* . His studies were characterised by logical rigour, lucidity and clarity of exposition.

A number of his articles from the late 1960s and the 1970s, including one on the papal encyclical Humanae Vitae, were critical of the Catholic Church's teaching and were seen as prejudicial to ecclesiastical authority and to the interests of the church. These brought him into prolonged confrontation with the Maynooth authorities.

He was laicised in 1977, and was asked to resign his chair. He refused on the basis he did not understand the reasoning behind the request. He continued to resist relentless pressure, but was eventually dismissed.

The request to resign, the reasons behind it and the eventual dismissal became a cause célèbre since they raised fundamental questions regarding academic freedom and tenure.

Widespread concern was expressed in the national press and elsewhere regarding the implications of the actions of the Maynooth authorities for him and for the academic community. The matter came before the High Court, which held that he had been wrongly dismissed and that his removal from the chair had been invalid. However, he was not reinstated. Instead he was awarded damages against the college trustees, but only 60 per cent of his costs. He felt he should have been reinstated and appealed the judgment. He lost his case and here ended his formal relationship with Maynooth.

Nevertheless, he retained many lasting friendships with his clerical ex-colleagues from Maynooth, from the diocese of Kildare Leighlin, and from further afield, who supported him in his difficult time, and many of whom were present at his obsequies.

The significance of these events in the 1970s is noteworthy. This was a time when attitudes to the power of the Catholic Church in Ireland, and the ways in which it was wielded, were very different from those of today. The stance he adopted showed outstanding courage, underlining his very clear, reasoned and principled view of what was just and unjust. His refusal to defer unconditionally to its authority was a landmark in the evolution of the standing of the church in Ireland.

His academic difficulties continued in an Ireland with this ethos. Despite his exceptional scholarly standing, he did not find it easy to obtain another appointment in Ireland.

His academic exile finally ended in 1980, largely due to the initiative and determination of University College Cork's professor of philosophy. The university appointed him to a statutory (senior) lectureship in philosophy, a post he held until his retirement in 2000.

In Cork he met Paule Cotter, a consultant haematologist, whom he married in 1984 and with whom he shared a deep empathy.

PJ McGrath was a man of unwavering high principle and an astute reader of character. Conciseness and clarity of thought, combined with a wry sense of humour, were highlights of his personality. He had a lifelong, profound love of reading, with an encyclopaedic memory for everything he had read. He had a profound knowledge of history and was immersed in European culture. He had a deep appreciation of wine, with a superbly developed palate and an impeccable cellar to match. He and his wife gave celebrated parties in their Bantry home for the musicians on the opening night of every West Cork Chamber Music Festival. These contributed in no small degree to the spirit of close camaraderie that binds together the performers at the Bantry festival each summer.

He is survived by his wife Paule, his brothers Séamus and Peter, and sister Mona.

Dr Tom O'Callaghan (1928-2011)

"A gentleman, a wonderful doctor and a good friend" these were just some of the words used to describe Dr Tom O'Callaghan Snr, who died on Friday, June 24.

Dr O'Callaghan was born in 1928 and grew up on a farm between Knocklong and Hospital in Co Limerick. After studying medicine at University College Cork (UCC) Dr O'Callaghan started his working life at the Mercy

Hospital in Cork cit and then having worked in hospitals across the UK set up his practice in Mitchestown in 1956.

Never one to sit still, Dr O'Callaghan worked tirelessly for his patients and his community. He was involved in many of the early developments of medical standards and supported his colleagues in Irish general practice through his work with the Irish Medical Union, where he served as President.

"My father was also a founder and fellow of the faculty of Occupational Medicine, chairman of both the North Cork and south Tipperary Clinical Societies, area medical director of the Red Cross and founder president of the Mitchelstown Lions Club." Dr O'Callaghan's son and director of the Livinghealth Centre in Mitchelstown, Dr Tom O'Callaghan Jnr told The Avondhu

With a well-known love of rural Ireland, Dr O'Callaghan had many friends from The Shorthorn Cattle Breeders who he joined every year at the ploughing championship and from the boating and fishing community in Ardmore and the pilgrims of the Cloyne Lourdes pilgrimage. "My father had a deep love of rural Ireland, its towns and villages, its countryside and wildlife, and its conversation, music and sport. He was a keen follower of horse racing and a ruthless 45 player." Dr O'Callaghan Jnr said.

Classical music was another important part of Dr O'Callaghan's life and as a special tribute, soprano Cara O'Sullivan joined all those who came to say farewell at the Church of Our Lady Conceived Without Sin in Mitchelstown.

"My father had a great love of classical music and especially Cara O'Sullivan. I would like to thank all those who were involved in his physical, medical and pastoral care during his recent illness." Dr O'Callaghan Jnr said.

Dr Tom O'Callaghan Snr is survived by his wife Mary, his brother Paddy, his daughter Marie, Sons Ger, Tom and Barry and his 13 grandchildren, nieces and nephews.

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Professor Seán Teegan (1923-2011)

Sean Teegan, who has died aged 87, was professor of spectroscopy at University College Cork and the author of several highly regarded walking guides to his native county.

An only child of John Teegan and his wife Mary (née Mooney), he was reared by his maternal grandparents following the untimely death of his father when he was still a boy. A brilliant pupil at St Patrick's national school and North Monastery CBS, he won a scholarship to study science at UCC.

Graduating in first place in chemistry in 1945, Teegan did an MSc the following year and then went on a science research scholarship to the University of Cambridge, where he was awarded a PhD in 1950. Having relished the academic atmosphere there, he maintained the connection with Cambridge all his life.

After a stint teaching at Leeds University, Teegan, who was by then published in scientific journals, was appointed lecturer in physical chemistry at UCC in 1951. He became professor of chemical spectroscopy in 1962.

In the late 1950s, Teegan held a research fellowship with the US Atomic Energy Commission at the University of Notre Dame. In the early 1960s he was a visiting professor at Florida State University.

He was elected to membership of the Royal Irish Academy in 1968 and, in retirement, remained active in the academy's affairs.

Centrally involved in the reforming administration of the then UCC president MD McCarthy in the 1970s, Teegan served as UCC governor and NUI senator and filled the new office of Dean of student affairs from 1974 to 1983. He was warden of the Honan Hostel residence from 1963 to 1970. He retired from UCC in 1984.

Extramurally, Teegan's greatest voluntary work was with the Cope Foundation, which developed out of the Cork Poliomyelitis Aftercare Association. A Cope director, he researched and wrote its history, An Ill Wind Blowing Good (2003).

Music was a passion and his friendship with composer Aloys Fleischmann began at the Cork Gramophone Society. He also relished foreign travel and recently put the final touches to *The Way That We Went,* a chronicle of the trips he took with his wife Maura.

His extensive knowledge of his native county is reflected in *Twenty-Five Scenic Roads Walks in West Cork (*1993) and *Scenic Walks in Cork* (1998). As well as giving practical information on scenic walks, they are affectionate discourses on the lore and antiquities of inland west Cork.

Teegan was a fellow of the Royal Society of Chemistry and a member of the Irish Federation of Chemical Industries. He also served on the Irish Commission for Justice and Peace.

A cherished paterfamilias, he is mourned by his beloved Maura, children and grandchildren, and a wide circle of friends.

Dr Denis Wilson (1922-2011)

Denis Wilson, who has died aged 89, was an ophthalmic surgeon who practised in Cork for more than four decades and was the father of Fiona Shaw, one of the leading classical actors of our time.

A highly cultured and courteous man of the old Cork school, Dr Wilson (FRC Ophthal) shared with his wife Mary a lifelong interest in the arts, music and theatre. Their home at Montenotte, overlooking the city, was a venue for private poetry readings, operatic evenings and musical recitals, pursuits that were to have a significant bearing on Fiona's decision to embark on a career on the stage.

However, while totally supportive of her decision to take up acting, he was also acutely aware of the uncertainties of life in the theatre and insisted she first do a degree at UCC, thereby ensuring she had an academic background before going on to study at Rada.

Though quietly reserved at those Montenotte soirees, he was a fine raconteur with a hearty laugh and a fund of entertaining stories about his boyhood days in Cobh. Educated at the local Presentation College he went on to study medicine at UCC. He played rugby for UCC and for the Combined Universities, and was capped for Munster. He subsequently worked for a short time as a GP in London and later back in Cobh before qualifying as an ophthalmologist at the Manchester Royal Eye Infirmary in 1960.

Returning to Cork, he was appointed to the Eye Ear and Throat Hospital as a consultant, and worked there until his retirement at 65, which coincided with the transfer of the unit to Cork University Hospital. Constantly keeping abreast with developments in eye surgery, he was awarded an honorary fellowship in ophthalmology by his peers in London. He also taught at UCC and at the Royal College of Surgeons in Dublin.

As a doctor he had a way of putting patients at their ease and built up a substantial practice in Cork down the years. In retirement, he continued working as a consultant at CUH and also had a busy private consultancy practice for many years.

After retiring he wrote De Iron Trote, an excellent history of the old Cork Eye, Ear and Throat Hospital on the Western Road. Turning his interest in the arts to good effect, he also studied for a Diploma in Art History at UCC.

An enthusiastic golfer he played in a regular four-ball at Cork Golf Club. Three years ago he suffered a stroke. He is survived by his wife, Mary, daughter Fiona, sons John and Mark, grandson Jim, and sister Kathleen. He was predeceased by his son Peter.

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UCC Annual Scientific Conference 2012

September 13, 2012

Contributors include:

Dr Diarmuid McCoy

Sr Miriam Duggan

Dr Derry Ryder

Registration for the Conference is Free of Charge.
Welcome Reception on **September 12 at 7.30 is Free of Charge (Staff Common Room)**
Gala Dinner at the Aula Maxima on **September 13 at 7.30 is €70 per person.**
Please register for the Conference and/or Buffet and/or Gala Dinner at:
http://conferencing.ucc.ie/conference
or contact **Rachel Hyland**
021 4901587 / r.hyland@ucc.ie for details

Class Reunions:

1967
Will Fennell: *corkheartandlunggroup@gmail.com*

1977
Barry Lordon

1982
Brendan Mullins: *bkmullins@eircom.net*
Marie Murphy: *mmurphy@stpatricksmarymount.ie*

1987
Paula O'Leary: *paula.oleary@ucc.ie*

1992
Deirdre Bennett: *d.bennett@ucc.ie*
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