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School of Medicine

Ysgol Meddygaeth

Edition 33 - Winter 2020

REMEDY

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Cardiff MedSoc

Welcome

Welcome to the thirty third edition of ReMEDy.



Professor Ian Weeks
Acting Dean
School of Medicine

This edition has learning as its theme and explains in more detail the introduction of the C21 north Wales initiative that provides students with a unique opportunity to undertake a medical degree in North Wales. Launched in September, this four-year programme, delivered with our colleagues at the School of Medical Sciences at Bangor University, is an exciting innovation in medical education in Wales.

Our 'In the Spotlight' feature focuses on the Welsh Language Medium team that is committed to supporting our medical students to develop their Welsh language skills academically and in professional/clinical settings. Dr Awen Iorweth, who delivered the first medical lecture in Welsh in January 2017, is committed to promoting the natural use of Welsh in the health workforce and in scientific work, giving patients a language of choice. The work of this team also hopes to mitigate the problems in recruiting doctors in Wales.

This edition's alumnus conversation is with Dr Alice Toole, a 2014 graduate of the School of Medicine who has started her second year of training as an Acute Internal Medicine speciality trainee in the Intensive Care Unit at the University Hospital of Wales. We also highlight the impact of a team of colleagues, including Dr Ned Powell,

in generating data to support a policy change which has led to the introduction of the human papillomavirus (HPV) vaccination to both girls and more recently boys in the prevention of certain types of cancer.

For information, I will shortly be stepping down as Acting Dean of the School of Medicine and Professor Stephen Riley will take over, following his recent appointment to the substantive role. Steve is currently the Dean of Medical Education and always provides a curriculum update following the Dean's welcome in ReMEDy so I am sure the name will be familiar to most of you. Steve is a Cardiff alumnus and his academic interests are in curriculum design, education leadership and application of systems theory to education delivery. His clinical interests are in the field of nephrology where he continues to practise in Cardiff and Vale University Health Board.

ReMEDy is available electronically to the School's alumni and to ensure that you receive your copy, please inform us if you have changed your contact email address.

 **Update your details now:**
www.cardiff.ac.uk/alumni-update

I hope you enjoy reading this edition and I wish you all a very happy 2020.

Curriculum Update

Recruitment to the Welsh NHS is challenging and the uncertainty over Brexit is likely to compound existing challenges that we face in Wales.

With an increasing shortfall of doctors available to serve rural communities in Mid and North Wales we need to think creatively and draw on international evidence to help address apparent health inequalities.

At Cardiff School of Medicine we have responded promptly to the call from Welsh Government to increase the numbers of Welsh domiciled students, achieving 40% in Year 1 this academic year. This has mainly been achieved through the introduction of a portfolio of activity that is tailored to support the specific needs of our domestic student population.

The C21 north Wales programme is this edition's main feature and provides students with the unique opportunity to undertake their medical degree in North Wales, directly addressing the need to educate students in the underserved areas.

The Community and Rural Education (CARER) initiative which was featured in edition 30 of ReMEDy gives Cardiff based medical students the opportunity to have a year of their education delivered in GP practices and hospitals in North and Mid Wales, providing invaluable experience of working closely with clinicians and patients in community settings. This should inspire these students to consider working in these communities following graduation.

The Welsh Language Medium team has developed significantly over the last four years and is continually developing Welsh language provision opportunities within the undergraduate curriculum.

This work is supporting the innovative development of Welsh Medium education at Cardiff and more information about this team is featured on page 4.

Taken together these initiatives, alongside our main programme, suggest a bright future for our graduates and the Welsh NHS. The hard work of our PGT teams also means that ongoing development of the workforce is accessible and relevant to improving patient care across all disciplines.

Professor Stephen Riley
Dean of Medical Education

In Conversation with our Alumni

Dr Alice Hoole

(**MBBCh (2014)**, MRCP, **PG Cert 2019**)

Alice is an Acute Internal Medicine (AIM) specialty trainee and has started her second year of training in the Intensive Care Unit at the University Hospital of Wales, Cardiff.

Alice says: "It is a busy and stimulating place to work and invaluable for medical trainees like myself as it better places us to talk to our patients about what it means to be "admitted to ITU."

Immediately after graduation, Alice worked as a Foundation doctor in Newport. Alice reflects on this year and recalls: "I met some irreplaceable mentors and friends, and found myself settling into my role as a doctor. My first experience of life on the wards was very stressful but also rewarding, and I realised that actually, long shift work and decision making under pressure was really good fun!"

Alice completed her Foundation training and Core Medical Training in South East Wales, travelling to Abergavenny and Merthyr Tydfil for 6 month rotations. Alice says: "I didn't take a break unlike most of my peers so spent my first registrar training year in Ysbyty Gwynedd in Bangor which, despite my anxieties about leaving my home, family and friends, was probably the best year of my training so far. North Wales is a beautiful part of the world, with countless stunning views, and the medical admissions team, within which I worked, was fab. Diolch yn fawr! It was in Bangor that I decided to complete the Postgraduate Certificate in Medical Education, which I have continued this year to the Diploma. Clinical medicine is a tortuous place for medical students and trainees alike and I think this tortuosity scares many talented and capable doctors away from medicine altogether. I want to use my skills to make learning the art of medicine more fun, engaging and valuable for students and trainees in an attempt to bring glamour and excitement back to the job that we train so hard to do."

On being asked why she chose Cardiff, Alice explains that "I am half Welsh – Cardiff has been part of my life from a young age, visiting the Welsh contingent of my mum's side of the family every school holiday, and wearing the Welsh flag with pride as a cape watching the Dragons triumph (!!) in what was then the Millennium Stadium. My grandmother went to the Welsh National School of Medicine in the 1940s and, although we joke about how daft we both are, something must be in my

genome! Cardiff has felt like home from home since those early years and so the decision to attend a Cardiff University open day was a no-brainer. I sat next to a fellow student on a bus tour of the city and immediately got on with them. I saw that people like me liked Cardiff too, so I was sold."

"Cardiff life as a student was perfect for me" describes Alice. "There were university societies, clubs and events every day and night, and the city itself had so much to offer right on my doorstep. Some of my favourite times were probably spent with lifelong friends in living rooms and pubs across the city, but the most memorable memory of my time in Cardiff was the first day. 300 of us bleary-eyed medical students in a huge lecture theatre in Park Place. I remember being thrilled and terrified in equal measure, whilst also excited at the prospect of beginning my training. With doctors in the family, I had an idea of what was to come, but I never felt more prepared than when I heard the professor say: "You are different from other students. You are young professionals, and doctors in training." At the time, I'm not sure I was capable of appreciating the gravity of this statement, but as I have progressed in my training and help other students with their studies, I understand it was an extremely valuable piece of advice."

Reflecting on how Cardiff School of Medicine contributed to her success, Alice mentions: "I was an open book when I started at university, an uncomplicated, happy, piano-playing rugby-tackling teenager with some science A levels, and I am forever grateful for the university seeing the all-rounder in me as a worthy prize for the School of Medicine. Cardiff helped me see my "jack of all trades, master of none" perception of myself as a strength and not a weakness, and this approach has brought confidence to my work as a doctor. I have been taught by some inspirational people during my student years and have them to thank for my love of teaching and my interest in medical education. Mentorship has been so important to me in my career so far and I hope I can give that support to others in the future having learned from the best!"

Alice concludes: "I think graduation day summarises my lasting impressions of the School of Medicine. I had just returned from my elective with five of my best (and most tolerant) pals and Cardiff had never felt better. It was swelteringly hot and sunny, a rare and welcome treat, and we were dressed up, glad

rags on, ready to celebrate our five years of memories/should-remember-ies. Everyone from our academic year was together reunited after our time away, and I got to meet the nearest and dearest of my nearest and dearest friends, which was special. This circle of friends that formed in university have kept me going, made me laugh when I've been crying and cry when I've been laughing, and the opportunity to have these pals as my colleagues one day is a real treat. Thanks Cardiff!"



Alice's shared alumni wisdom:

"Always take an umbrella. And don't forget your coat (even in August!)"

Alice's five words describing Cardiff School of Medicine:

Best

years

of

my

life



In the Spotlight:

Iechyd da! Welsh medium medical education in Cardiff



Students and Academic staff at the first Coleg Cymraeg Medical School Celebration day, June 2019

Generations of Welsh doctors have been trained in Cardiff to serve the Welsh population's needs. Before 2015, however, there was never any emphasis on the language of healthcare. Any Welsh provision in the training or delivery was haphazard and reliant on enthusiastic individuals.

Following devolution, Wales became responsible for its own policies on education and health and the focus changed to developing a high quality workforce to fulfil the needs of a bilingual nation. According to the Office of National Statistics in March 2019, nearly 900,000 are able to speak Welsh and the Welsh Language Measure of 2011 meant Welsh was to be treated no less favourably than English.

Previously, students from Welsh-medium education (26% of all Welsh schools) were arriving in medical school fluent and confident in Welsh but by the time they graduated, their professional Welsh fluency and confidence was lost. It was their anxiety and their feedback in 2013 which triggered this new direction. Following research and consultation, it was concluded that Cardiff University needed to make "opportunities available for Welsh speaking students to complete a part of their training in Welsh, **systematically** throughout their education, placements and personal support."

With the appointment of Dr Awen Iorweth, the first Welsh-medium clinical lecturer under the Coleg Cymraeg Cenedlaethol's Academic Staffing scheme, Cardiff School of Medicine were finally able to offer Welsh-medium provision, concentrating on small group learning, personal tutors, communication skills and Welsh examination papers. In the Autumn of 2015, the School welcomed the first 4 Coleg Cymraeg Scholars. The Coleg was established in 2011 to work with Welsh Universities to develop Welsh-medium courses and resources for students. The Coleg awards Incentive Scholarships of £500 per year for students studying at least a third of the degree course in Welsh. In this academic year 2019/20, there are 24 scholars – 3 small learning groups – in the first year. The first generation will graduate in the summer of 2020 and their experience has been very positive.

In 2015-2016, "Doctoriaid Yfory" an award-winning television series following a group of our undergraduate medical students was filmed. It highlighted the training and recruitment of doctors for Wales and this became a priority for the Welsh Government. Following on from this, a group of students passionate about continuing their learning in Welsh throughout their course developed mentoring and school liaison projects for their Self Selected Components (SSC) and presented their work in Welsh. These projects won the main prize in the annual Cymdeithas Fedydol (Welsh Medical Society) conference

and the Innovation in Science Award at the National Eisteddfod in Cardiff. This same enthusiastic group of students also studied Welsh-medium medical education and have presented in the Academy of Medical Educators Conference. This vital research is to continue with the intention of establishing a higher degree in minority language medical education.

The exciting thing is that this is just the beginning! Four years on and Dr Alun Owens is the second clinical lecturer to join the team alongside a cohort of invaluable part time educators. Strong links have been forged with medical students from other universities (through our residential course in the Urdd outdoor centre, Glan Llyn, learning about rural emergencies) and international links with the Basque Country, Canada and Ireland. The team are aiming to host a conference for medical education in minority populations in the summer of 2021 which will affirm Cardiff University Medical School as a leader in this field.

Dr Awen Iorweth affirms: "The evidence is incontrovertible now that patient care is safer in their mother tongue, especially in paediatrics, mental health and care of the elderly. It is wonderful therefore that this recent development is innovative educationally, gives status to Welsh-medium education, eases the anxieties of students but most importantly contributes to improving the healthcare of our bilingual nation."

Vaccination against HPV:

a story of cancer prevention in 2 parts...

The size of problem

Over four decades have passed since Human papillomavirus (HPV) was first linked to cervical cancers. HPV is now established as the fundamental cause of nearly all cervical cancers and as a major contributor to many other anogenital cancers, especially anal cancers. Worldwide, HPV is the cause of 5% of all cancers. Vaccination to prevent HPV infection promises to dramatically reduce this disease burden.

The path to vaccination

Two areas of research have made vaccination possible. Firstly, epidemiological studies to understand which types of HPV cause cancer, and how common they are in various populations, and secondly development of virus-like-particle (VLP) vaccines against the relevant HPV types.

In 2008, UK HPV vaccination was introduced for 12-13 year-old girls. This decision was underpinned by data generated by the Cardiff University HPV Research Group, led by Professor Alison Fiander, Dr Ned Powell and Dr Sam Hibbitts, (1,2) which defined the prevalence of HPV in the Welsh population, and the HPV types present in cervical cancers diagnosed in Welsh women. This showed that approximately 30% of women in their early twenties carried a genital HPV infection, and that 80% of cancers could be prevented using current vaccines. This evidence was highly persuasive in making the case for UK-wide vaccination of young girls.

A sub-plot takes centre stage

Many people were aware of the link between HPV and cervical cancer, but in 2010, international studies suggested a strong link to oropharyngeal cancers too, especially tonsil cancers. Initial studies by Professor Mererid Evans (a consultant oncologist at Velindre Cancer Centre) and Dr Powell, showed HPV to be implicated in 55% of oropharyngeal cancers diagnosed in Wales (3). Unlike cervical cancers, there is no screening programme to prevent

oropharyngeal cancers and it soon became apparent that incidence of HPV-associated cancers was increasing at an alarming rate – indeed faster than for any other cancer in the UK. Furthermore, most of these cancers occur in men, who were not directly protected by vaccination of young girls.

A case for vaccinating boys was growing, but there was a lack of evidence to support it. In 2016 Dr Powell, Professor Evans and collaborators from Liverpool University, published an investigation of incidence of HPV-driven oropharyngeal cancers across the UK, which showed that incidence had doubled in the preceding decade and that the majority of these cancers were caused by HPV (4). This data challenged the assumptions that had previously led to vaccination of boys being considered not cost effective.

Vaccination for all

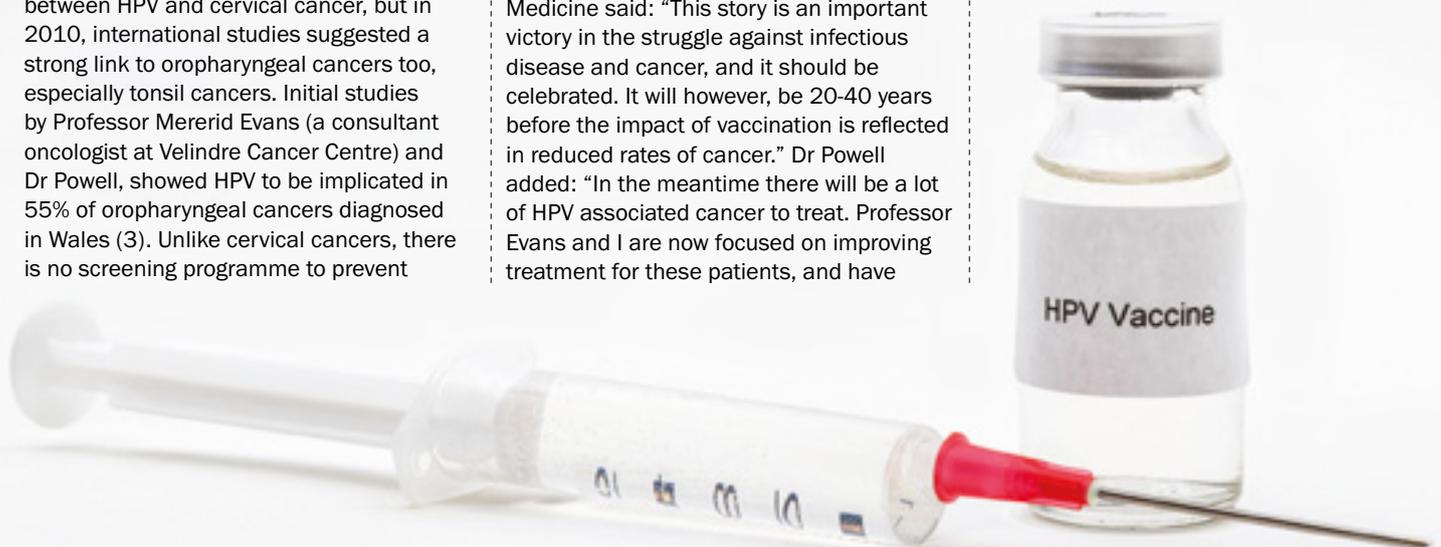
Having considered these data, in July 2018, the committee that advises UK Governments on vaccination, changed their advice to support vaccination of both boys and girls. UK wide vaccination of 12-13 year-old boys is now expected to start in the 2019/20 academic year. This policy change represents the culmination of a long journey, beginning with recognition that cervical cancer had an infectious cause, through identification of HPV as the agent responsible, to development of effective vaccines, followed by accumulating evidence for multiple malignancies caused by HPV, and finally to implementation of gender-neutral national vaccination.

Dr Ned Powell, Reader, Cardiff School of Medicine said: “This story is an important victory in the struggle against infectious disease and cancer, and it should be celebrated. It will however, be 20-40 years before the impact of vaccination is reflected in reduced rates of cancer.” Dr Powell added: “In the meantime there will be a lot of HPV associated cancer to treat. Professor Evans and I are now focused on improving treatment for these patients, and have

recently received funding of £2.3 million from Cancer Research UK for international roll-out of a clinical trial to optimise treatment of HPV-driven tonsil cancers.”

For further information, please see invited 2018 BMJ editorial “Gender neutral vaccination against HPV: A cause for celebration” Ned Powell, Sam Hibbitts & Mererid Evans (5).

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Introducing... the C21 north Wales programme

Building on the success of previous collaborations with universities in Wales to deliver the CARER (Community and Rural Education Route) programme, the C21 north Wales initiative expands our commitment to devolve medical education in north Wales in line with Welsh Government objectives.



The C21 north Wales programme gives Cardiff medical students the option to study 4 years of their MBChB degree based at the School of Medical Sciences at Bangor University. Working in partnership with Betsi Cadwaladr University Health Board (BCUHB), the objective of the programme is to meet the commitment of Welsh Government to increase the recruitment and retention of the medical workforce in underserved communities in Wales. This new initiative in Wales will provide students with the opportunity to study whilst embedded in communities, reflecting Welsh Government policy that 'care should be delivered as close to patients' homes as possible' which has heralded a change of direction for clinical services in Wales, putting greater emphasis on primary care and community-based services.

An additional 20 medical student places were announced in September 2018 with the allocations mandated to be undertaken entirely within the north Wales region.

A formal collaboration between Bangor and Cardiff Universities was signed by both Vice-Chancellors in March 2019, and teams across both institutions have worked hard to set up the programme to welcome the first

students in August 2019. Funded by Welsh Government, bespoke facilities have been identified and renovated for the C21 north Wales students at the School of Medical Sciences. These facilities will provide students with the most up to date clinical skills facilities and teaching environments.

Story so far

The team based at the School of Medical Sciences at Bangor University, led by Professor Dean Williams, have expanded to include newly appointed clinicians to lead the primary care education. The faculty have worked quickly to identify support from colleagues in BCUHB to teach and provide placement opportunities for the students.

A collaborative approach with colleagues in Ysbyty Gwynedd, Bangor ensured that the cohort of students enjoyed a comprehensive Graduate Entry Module in August 2019, compulsory for the 17 students joining the accelerated 4 year MBChB through the recognised graduate feeder stream degree route. In addition, one student has transferred from Cardiff, having chosen to complete her degree in north Wales after successfully completing

Year 1. The students then started their substantive curriculum in September 2019, mirroring the curriculum delivered to Year 2 MBChB students based in Cardiff. The faculty in Bangor aim to make the most of the unique educational opportunities that being based in north Wales affords them, including the academic expertise of educators at Bangor University, in addition to the clinicians and lecturers appointed specifically to the programme. The students will be able to experience Student Selected Component (SSC) projects with a unique north Wales focus, and take advantage of the wider access to a variety of educational experiences. Placements are varied, with mountain, island and coastal communities involved during this inaugural year, with many opportunities to experience bilingual environments. The students are also enjoying access to facilities and award-winning teachers at Ysbyty Gwynedd which has a long tradition of educating Cardiff University medical students.

C21 north Wales Programme Lead Dr Ffion Williams says "I have been honoured to be appointed as programme lead for C21 north Wales during this exciting time for medical education in North Wales. Student feedback to date has been very positive with students



valuing how responsive and supportive staff have been during the initial weeks of the new programme. Our current students are really enjoying the friendly and welcoming course and benefitting from the smaller cohort numbers.”

Student Elen Sanpher transferred from Year 1 in Cardiff and states “When the opportunity to complete my degree in north Wales came about I jumped at the chance. The quality of the teaching has been outstanding so far. There’s only 18 of us which makes us a tight knit community. This suits me perfectly’.

Future plans

Following the success of the CARER programme pilot as reported in ReMEDY Edition 30, the north Wales based students will spend the next academic year based entirely in communities. Based on an internationally tested model of ‘longitudinal integrated clerkships’, placements have been secured with GP practices across BCUHB and students will remain in one placement for the duration of the year. Students will benefit from the positive elements reported by the

Cardiff students who have undertaken the CARER programme to date, which include better understanding of patient needs and stronger working relationships with patients, families and healthcare teams. With greater flexibility to shape their own learning, students will have an opportunity to follow patients as they navigate through the different healthcare environments and strengthen their communication skills. They will also have the unique opportunity to work in a variety of community based settings unique to north Wales including coastal, mountainous and farming communities.

Following the CARER year, C21 north Wales students complete their final two years based across the A55 corridor in the secondary care placements in Ysbyty Glan Clwyd, Wrexham Maelor Hospital and Ysbyty Gwynedd. The first cohort of students will graduate from Cardiff University in 2023.

The recruitment for the 2020 cohort is already underway and interviews for the graduate entrants will be held in February 2020. The School is also currently accepting expressions of interest from students who wish to transfer following successful completion of year 1.

The School has a long tradition of facilitating medical education in north Wales and this collaboration with Bangor University and BCUHB is a natural evolution to strengthen this offer to our students and ensure that we equip them with the skills they will need to practice medicine in a modern Wales.



Interested?

The School of Medicine is always looking for opportunities to develop their educator base.

If this article has sparked your interest in getting involved with the C21 north Wales programme please contact medicine@bangor.ac.uk

10 ways

MEDIC is MAKING an IMPACT

The School of Medicine has a successful track record of contributing to society through its Research, Learning and Teaching, and Innovation and Engagement activity. Efforts by many staff and students highlight a rich variety of ways in which the School is engaging and benefitting society. Here are just ten recent examples:

1 2019 Life Sciences Challenge Winners



The Life Sciences Challenge for Year 10 pupils features parallel competitions for Welsh-medium and English-medium schools. It has grown since its inception in 2013, and this year attracted entries from over 100 teams, involving almost 500 pupils across the whole of Wales.

The Challenge aims to inspire pupils to consider careers involving science and is run by staff and students from the School of Medicine.

Both English and Welsh finalists included a North/South Wales split of teams - Brynteg School, Bridgend v Ysgol Brynhyfryd, Ruthin, (English) and Ysgol Bro Morgannwg, Barry v Ysgol Tryfan, Bangor (Welsh). The worthy 2019 winners were Tryfan and Brynteg.

2 Cracking “Virus Code” Could Help Fight Cancer

Virus experts have uncovered, for the first time, how a virus known as Adenovirus type 26 (Ad26), which has been used effectively in a tamed form as a vaccine, can infect human cells. The research, published in the journal Science Advances (<https://advances.sciencemag.org/content/5/9/eaax3567>), provides the first detailed analysis of the structure of the virus in complex with its newly discovered receptor.

“Our research finds that Ad26 uses a type of sugar found on the surface of most cells to enter and infect human cells,” according to Alexander Baker, who led the research.

By understanding how the virus infects human cells the team believe this will allow them to develop antivirals to prevent the spread of infectious forms of Ad26 and will result in the development of more effective vaccines, based on tamed Ad26, to fight infectious diseases as well as cancer.

3 Two Medic Societies Host First Aid Day



On Halloween, two Cardiff University societies- MediCan and WEMS- worked together to put on a free day of first aid activities for Welsh sixth formers with an interest in studying medicine. The morning was spent in mini lectures giving the basics, before putting the pupils through their paces! Our volunteer medical students acted as casualties in (very dramatic) scenarios including basic life support and catastrophic bleeds. After a whistle stop lunchtime tour of UHW pupils settled down for talks and group work about applying to medical school. The pupils enjoyed the day, giving it an average rating of 9/10!

4 Funding Boost For Cancer-killing ‘Smart’ Viruses

Nearly £1.4m in funding by Cancer Research UK has been awarded to scientists to support the development of cancer-killing viruses.



“Oncolytic” viruses are widely seen as the next breakthrough in cancer treatments. They destroy cancer cells but leave health cells unaffected. Dr Alan Parker said “Viruses haven’t evolved to infect and kill cancer cells - unfortunately they infect healthy cells, making us ill in the process. Our research has focused on generating ‘smart viruses’ that can discriminate between cancerous and healthy cells.

“Our next challenge is to engineer the virus to make it even more potent and deliver this to clinical trials. This funding from Cancer Research UK will accelerate this process and help us to deliver these exciting new therapies to cancer patients sooner.”

5 Restart A Heart Day 2019

Our medical students, led by fifth year students Hayley Taylor and Elliot Phillips, taught CPR to members of the public at locations in Cardiff as part of the World Restart a Heart Day on Wednesday 16 October.

Restart a Heart Day is an annual initiative led by the European Resuscitation Council and the Resuscitation Council (UK) alongside other partners, with the aim to raise awareness and improve the low numbers of people surviving out-of-hospital cardiac arrests.



Hayley said: "Anyone has the ability to save a life. Chest compressions are simple once you know how, and automated external defibrillators (AEDs) are becoming more and more common in public places.

"If people are taught these skills, and shown that AEDs are designed for anyone to use, they could have the skills and confidence to save a life."

6 New Postgraduate Diploma In Healthcare Planning Launched

Healthcare professionals tasked with planning the future direction of the NHS in Wales will receive academic training at Cardiff University.

The Postgraduate Diploma in Healthcare Planning will be delivered by academics from Cardiff Business School, the School of Mathematics and the School of Medicine. The 18-month programme of learning will involve professionals from across Wales – from seven health boards and three NHS trusts.

Funded by Welsh Government and NHS Wales, the course is part of a wider initiative to develop employees already working in healthcare planning in Wales. A total of 125 people will be trained over five years.

7 Superbugs Science Shop Success



Dr Jonathan Tyrrell and his team set up shop in Cardiff St David's 2 last summer, providing visitors with the opportunity to find out more about the microbial world and the increasing threat of antibiotic resistance to public health globally. During the two week period, 6566 visitors enjoyed a mixture of activities including games, arts and crafts and laboratory experiments and 1626 youngsters became 'Antibiotic-Resistance Champions' representing 200 schools throughout Wales.

Superbug visitor quotes include:

"The children enjoyed the event. The activities were brilliant and informative. They liked the coconut shy game."

"Engaging for my boys, I was surprised by their understating of antibiotic use and happy they learned the rules throughout the science shop."

"Interactive activities to help children understand complexity of antibiotics. Station 11 (Fighting back, how we combat

antibiotic resistance) was the favourite. Very enthusiastic scientists."

www.cardiff.ac.uk/superbugs

8 Chronicling The Visual Hallucinations Described By Patients

The Delirium Study led by Dr Martyn Stones, Psychiatry trainee and PhD student at the School of Medicine in collaboration with Jan Sharp, Senior Medical Artist at the University Hospital of Wales, provides a unique insight into patients' subjective experience on the intensive care unit (ICU).

Delirium is a common condition affecting about 20% of all hospital patients.

Symptoms fluctuate and include poor attention, disorientation and in severe cases visual hallucinations and paranoia.

The aim of this study is to investigate the relationship between the biological and psychological changes that occur in patients on intensive care after heart surgery.

Patients described their visual hallucinations to Jan Sharp who used photo-montage in an attempt to accurately represent the hallucinations and enable viewers to experience what they saw.



An exhibition of these strange and bizarre, dream-like scenes can be seen in the Hadyn Ellis building, Maindy Road, Cardiff.

9 £2M Trial Seeks To Inform Better Use Of Antibiotics In Sepsis

The Centre for Trials Research is to coordinate a trial looking at the use of antibiotics in sepsis. Sepsis is a potentially life-threatening complication of an infection and it is estimated that 52,000 people in the UK die every year as a result of it. Optimal treatment includes early recognition, prompt antibiotics and fluids.

The trial will look at emergency assessment of sepsis and whether antibiotics are being oversubscribed, which experts cite as a significant factor leading to increasing antimicrobial resistance.

Emma Thomas-Jones, senior research fellow at the Centre, said: "The aim of the trial is to assess whether the addition of a point-of-care blood test can aid clinicians in their decision-making around the requirement for urgent antibiotic treatment in patients presenting to the emergency department with suspected sepsis, which will hopefully lead to a reduction in antibiotic usage without increasing risk of mortality."

10 Hot Drinks Are The Most Common Cause Of Burns To Young Children

Research shows that more than 50,000 children in the UK attend hospital with burns each year, with the majority happening to children under five. Hot drinks account for 60% of hospital attendances with burns in children under three years.



The SafeTea campaign is based on evidence collected by researchers from Cardiff University, the University of Bristol and the University of the West of England and tested in collaboration with early years teaching staff and parents of young children.

Professor Alison Kemp, who led on the research, said: "To avoid risk, parents should keep hot drinks out of reach of children, never pass a hot drink over a child, or hold a drink and a baby at the same time. We also advise them to learn the correct burns first aid to help them in the event of an accident: Cool the area under running water for 20 minutes; Call for medical advice, NHS Direct or 999; Cover the area with clingfilm. The moments following a burn are the most critical time for preventing long-term damage."

MEDIC people

Qi Zhuang Siah (Medicine 2017-)

I am a third-year medical student at Cardiff University, and I am particularly passionate about the role of research in driving the medical field forward. I plan to take up research alongside my clinical practice in the future. At the moment, my interests involve looking at the pathophysiology of Diabetes and the services delivered by healthcare professionals to provide the best treatment and care for patients with Type 1 and 2 Diabetes.



ReMEDy talks to **Dr Catherine Britton-Jones**, alumnus; **Qi Zhuang Siah**, undergraduate student; **Dr Martyn Stones**, postgraduate student and **Ruth Coomber**, member of staff, to ask the questions we love to know the answers to!

1. As a child what did you want to be when you grew up?

CB When I was a child, I remember wanting to be a mummy. We had a great fancy dress party in medical school to celebrate being half way through the course and the theme was ‘when I grow up I want to be a... I dressed up as a pregnant lady with a small baby doll in a baby carrier’.

Catherine Britton-Jones (MBBCh 2007)



After graduating in 2007 I have spent the last 12 years rotating through most of the South Wales hospitals. I am currently enjoying my 2nd maternity leave having recently completed my training in anaesthesia and am excited to commence my first consultant job when I return to work in 2020 at the University Hospital of Wales.

QS I have always wanted to be a commercial pilot. I love travelling and exploring the world, and I feel that being a pilot would fulfill my dream.

MS I didn't know then and I don't know now! I never wanted to be tied down as there is too much interesting stuff to do. I think I wanted to do everything. In the 6th form I was considering pharmacology and toxicology.

RC I can't remember being very career focused ... at the age of seven, I can remember always wanting to work in a post-office or work in Tesco! There was one other career-direction I was interested in but you will have to ask me about that one.

2. Who is your personal or professional hero?

CB My parents, they have always put me and my sister's needs before their own needs, without their support I wouldn't be where I am now.

QS My brother has always been my source of motivation. He has encouraged me to become the best version of myself and continues to help me grow. He truly has helped shape me into who I am now – and for that I am super grateful. Most (*not all*) of my success could easily be attributed to his help and also *nagging*.

MS My first job was in the biochem labs at the old Cardiff Royal Infirmary. The world leader in Forensic Pathology, Professor Bernard Knight worked out of the mortuary next door. I used to measure the blood alcohol levels on the cadavers for him. His forensic pathology book is the best medical text book I have ever read.

RC My personal hero must be my mum. Bringing up two children on your own, working part time and giving us a happy childhood deserves a “hero” status.

3. What first brought you to our School of Medicine?

CB Growing up in Cardiff and wanting to go to medical school in Wales, Cardiff med school was the obvious choice and being close to home meant I had the benefit of being able to take my washing home and grab a home cooked Sunday lunch whenever I wanted.

QS Well, it was the only offer I received. However, it hasn't turned out to be a bad choice after all. The only downside is the weather.

MS I am from Cardiff and have always worked in Wales (mainly as a process improvement engineer) except for a short stint as a medicines inspector for the MHRA in London. In my spare time I was a parachuting trauma medic in a Llandaf Territorial Army unit. My boss, a surgeon, suggested doing medicine so I went to Hull-York Med School. I wanted to come home to do my medical jobs in Wales. I find it a real advantage as a psychiatrist to know where my patients live and work and speak ‘Cardiff’ with them.

RC A part-time role working in administration which fitted in around bringing up my family. Twenty years on and I am still here!

4. What is/was your favourite thing about living and working in Wales?

CB Cardiff is an amazing city with the coast and mountains close by and all the amenities of a big city but on a smaller scale. With family and friends close by what more could I want from a place.

QS At the beginning, it was a very big transition to move to the UK for university, but the people whom I have met in the past 2.5 years have made it more tolerable. Another thing I really like about Cardiff Medical School is the large international student community which I can always turn to when I am feeling homesick.

MS I went to Whitchurch High School, it was the third biggest school in Europe when I attended, so lots of friends and probably the best rugby teachers and best sports teams ever! On my first day our PE teacher Mr Williams put me in the school rugby team as a winger, I never looked back. He went on to teach sporting heroes; Gareth Bale, Geraint Thomas and Sam Warburton all in one year, unbelievable!

RC It has to be the friendly people... a beautiful capital city (with great shopping) with beautiful beaches and landscapes on your doorstep.

5. What does a day in your life look like?

CB Busy and long. Trainee life had me up at 05:30 to commute to various hospitals. I am looking forward to living the dream of not having to commute so far to work and having a lie in till 6 am when I return to work as a consultant (I have 2 small kids – 6 am is definitely a lie in!)

QS As we speak, I am on my first block of placement in Glan Clwyd Hospital. Like several of my peers, I have a typical 9 am to 5 pm day of placement. However, if I am lucky, I have a late start with an early finish.

MS Research days: arrive at intensive care at 06:00 to collect patient samples, then into theatres at 08:00 to collect samples from patients as they are prepared for their operation. Then into the lab to prepare the samples for storage (a lengthy process), then back to ICU to assess the patients. Then back

over to the surgical ward at 18:00 to recruit new patients and perform more research questionnaires. Then cycle home to bed. Liaison psychiatry days: see patients in medical hospitals and hospices all across Cardiff, always fascinating and challenging.

RC It always starts with a coffee followed by a day in the office with meetings, attempting to keep on top of emails and responding to different deadlines – every day brings a different challenge. Home via the gym and then time to relax and at this time of year, lighting the wood burner getting ready to start again the next day!

6. How do you relax?

CB I love to spend time with my family and friends. I have made some incredible friendships along my journey through medical school and onwards. Once my kids are a little older, I am looking forward to rekindling my love of sailing and other hobbies that have fallen by the wayside.

QS I watch a lot of television programmes and variety shows. Spending time with friends and going for a run also help me wind down. However, ultimately, I feel the most relaxed when I am talking to my parents on the phone. Their voices have a calming effect on me.

Martyn Stones (BSc, PGDip 2015, PhD 2017-)



For my PhD I am investigating the biochemistry of delirium on Cardiac Intensive Care. The patients develop distressing psychotic symptoms including confusion, visual hallucination and paranoia.

I also work part-time as a speciality Locum SHO in Liaison Psychiatry at the University Hospital of Wales (UHW). I am currently collaborating with Jan Sharp, senior medical artist, at UHW who produces images of the patients' hallucinations.

MS Gardening, restoring classic motorbikes and swimming lessons. I grow apples for cider, hops for beer and Riesling grapes for wine.

RC I can't believe I am saying this, but going to the gym after work, which I do a few times a week... it really helps to clear your mind after a long day. Spending time with friends and family with a glass of Pinot Grigio blush also does the trick.

7. What is your secret ambition? (just between us)

CB To sail around the world.

QS To live life to the fullest every day, I presume.

MS To be a neuropsychopharmacologist, a bit like David Nutt. My dream would be to develop the first routine panel of biochemistry tests

ever for a psychiatric disorder. Specifically, to be able to stratify patients with delirium into appropriate drug therapies. When I get time, I would like to do fine art, exploring physical and mental trauma.

RC To be able sing as well as I think I can sing.

8. What is the funniest thing that has happened to you recently?

CB Umm does the word poonami mean anything to any of you?

QS I was at this new Pho place the other day, and I specifically told them about my food allergies. However, they messed up my order. I was not too bothered by the mistake. However, the frantic reaction of the waitress to stop me from eating made my day. She literally came running. In the end, *I GOT FREE LUNCH*. Moral of the story: having a food allergy isn't necessarily bad.

MS Funny strange, I treated a delusional psychotic patient with niacin, the stuff they spray on cornflakes (vitamin B3). He had a special kind of neuroendocrine tumour. I saw a patient in A+E the other day. I asked "how can I help?". He said "Doctor I just want to be normal". I thought to myself "you're not the only one!".

RC Not so recently but getting stranded in Prague airport with my sister because the passport details were incorrect. Rebooking flights back to Birmingham to pick up a hire car to drive back to Cardiff. Arriving back at 11pm and realising that the only vehicle available was a highway maintenance van. Let's say it was an adventure.

9. If you could have any job in the whole wide world that you could imagine or make up, what job would that be?

CB Having finally reached the end point in training I am not sure I would like any other job, but being paid to sail around the world would be a pretty cool job for a couple of years.

QS Probably getting paid as a domestic helper in my house by my parents.

MS Monday: Medicines inspector; **Tuesday:** Process improvements at UHW; **Wednesday:** Liaison psychiatrist; **Thursday:** Research and teaching psychopharmacology to medical students; **Friday:** Research; **Saturday/Sunday:** TA, hobbies and family.

RC Any job that involved travelling the world and getting paid for it!

10. What advice would you offer School of Medicine students today?

CB Medicine is a marathon not a sprint, you need plenty of stamina. Make sure that you remember the importance of work-life balance.

QS Try to push your limits while you are in medical school. Don't be afraid of trying. Seek help when necessary. Doubt anyone will bite.

MS Plan flexibly, have an open mind, don't put your heart on one speciality. If you don't

Ruth Coomber

I have worked in the School of Medicine for 20 years in a number of administrative and management roles. I am currently the Manager for the Centre for Medical Education and the Division of Population Medicine.



like something, don't do it, do something else. If you are thinking about academia, write one paper during med school, network and make friends. Don't take yourself too seriously, always be completely honest, ask for help when you are getting stuck, never criticise a colleague, eat breakfast, wear sunscreen and don't forget to network.

11. What does the School of Medicine need more of?

CB When I was in university we had med club, a great place to unwind and relax after a busy and sometimes stressful day. Since it no longer exists, I would say that you can never have too many social activities.

QS Supportive members of staff and supervisors who will go the extra mile to help students to achieve great things or to, at least, support students who are troubled by personal circumstances and family issues on top of the stress from their studies.

MS Needs to persuade the Deanery to help accommodate junior doctors with a more flexible approach to medical training. Every trainee lost is one less doctor to serve the Welsh people, leaving more strain on the doctors who are left behind.

RC More opportunities to celebrate the staff and students who make up our School.

12. If you could turn the clock back, what would you do differently?

CB If I could turn back the clock, I would make sure that I maintained a better work-life balance, too often my balance was skewed towards work with exams taking over. If I had to do it all again, I would try to maintain more time for my hobbies. There is more to life than passing exams.

QS Nothing - I am happy at where I am right now.

MS Do applied maths 'A' level, and after sixth form join the army to be an airborne paramedic. All the rest I would do the same. On reflection, I would have eaten breakfast, worn sunscreen and networked more.

RC Nothing. I am a firm believer that if you look back and there is something that you really want to do, there are always opportunities to still do it.

Cardiff MedSoc 2019/20

Within Cardiff University MedSoc, one goal is to provide academic support for students, both in terms of revision of course content and looking towards the future of students' careers. Within the last month Cardiff MedSoc have organised a mock Year 4 ISCE, attended by 180 students, a Clinical Careers Evening featuring 29 specialities and attended by approximately 100 students, as well as multiple peer-led revision sessions aimed at students in phase 1 (previously termed 'pre-clinical').

Cardiff MedSoc are proud to maintain close links with medical school staff, and hold positions on the Undergraduate Board of Medical Studies (UBOMS), the Education Committee, the Professionalism Committee, the Equality and Diversity Committee, and have recently been invited to advise the Admissions Team. Jessica Randall, Medsoc President, 2019/20 said: "The medical school actively considers student opinions, and we're privileged to have a direct impact on policy decisions. Our academic team, including an academic chair and representatives from each year group, have regular meetings with the medical school to discuss course content and assessments, ensuring student feedback is acted upon by staff."

Marcus Powis, MedSoc Phase 1 Vice President, 2019/20 said: "Excitingly, we continue to provide a range of social events throughout the year, including a Freshers' Ball, which acts as a welcoming introduction to university for the new first year students. Our annual Christmas Ball, attended by members from all year groups, is always a nice way to end the term and truly get into the festive spirit! Other fun activities include karaoke nights, pub quizzes and we hope to expand our social calendar to include booking out a cinema screen and trampolining events!"



From left to right: Emily Lloyd, Marcus Powis, Thomas Grother, Ellen Davies, Jessica Randall, Taylor Youngsmith, Thomas Beresford, Lawrence Pugh.

A more contemporary introduction to Cardiff MedSoc is the welfare team, who act as an initial point of contact for struggling students. As well as providing a formal line of support for members who may be struggling with stress, or worried about exams, they also run a variety of events. These events include the Welfare Café, a recurring event where the committee hand out refreshments and provide support and advice for any student who needs it, and the Inner Child Day, which aims to provide fun stress-relieving activities for students during the exam season. Jessica comments: "We're very proud to have welfare representatives in each year group, so everyone can feel that they have somebody who will listen and understand if they need it."

The Cardiff MedSoc committee recently attended the National MedSoc Conference in Birmingham, an annual student-led event where medical students from universities across the country meet to share ideas and advice around a range of topics, such as student engagement, welfare, and communication with the medical school and Students' Union. Marcus said: "It was a great weekend, with seminars and lectures in the daytime and a ball at the Botanical Gardens in the evening. It was amazing to meet students from other universities (our potential future colleagues!) and brainstorm ways to help students make the most of their time at university. We now have some bright ideas for the rest of the academic

year, and will be putting it all into practice before next year's conference in Nottingham - hopefully we can bring the conference to Cardiff the year after to show students from other medical schools what they're missing out on!"

Cardiff MedSoc are always happy to hear from alumni - whether you'd like to share stories of your time at medical school, or if you have any interest in helping to teach or talk to students. Feel free to contact the Alumni Rep, Lawrence Pugh; or President, Jessica Randall, at medsoc@cardiff.ac.uk.

To keep up-to-date with MedSoc activities (and reminisce about your time at Cardiff), you can also follow on

[facebook.com/CardiffMedSoc](https://www.facebook.com/CardiffMedSoc)
[@CardiffMedSoc](https://www.instagram.com/CardiffMedSoc)

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The Editor wishes to thank all contributors to this edition of ReMEDy.

The Editor reserves the right to edit contributions received. Whilst care is taken to ensure the accuracy of information, this cannot be guaranteed.

Views expressed in 'ReMEDy' do not necessarily reflect those of the School.

Feedback and items of interest relating to the School are welcome and should be sent to:

remedy@cardiff.ac.uk

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