Alumni and friends share what Cardiff means to them...

**WHY CARDIFF?**

**MY CARDIFF**

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#BeTheDIFFerence

Thousands of Cardiff graduates have told us that they want to #BeTheDIFFerence

How? By inspiring prospective students, providing internships and work placements, and taking part in Cardiff events across Wales and the world.

Our new Alumni Volunteering Programme is designed to enable Cardiff alumni like you to do just that.

Come home to Cardiff. In person or online, in the classroom or at work; your experience and expertise are invaluable to current and future Cardiff students.

To get involved, visit bit.ly/cu-getinvolved (this is a secure link)
In July, Cardiff Racing became the first ever UK team to be crowned champions at the Formula Student motorsport competition.

The team of 56 students from Cardiff’s School of Engineering outperformed over 130 international teams to be named 2017 Class 1 overall winners.

You can read more at cardiffracing.co.uk
Training viruses to tackle cancer

A senior lecturer at Cardiff’s School of Medicine is leading a pioneering research project on the use of viruses to tackle cancer.

In their original form, viruses typically give us cold or flu-like symptoms – but if genetically engineered they can be ‘retrained’ to identify cancer cells and attack them.

“In the use of virotherapies sounds counter-intuitive” said Dr Alan Parker at the recent Cardiff Day. “If you’re ill, why would we want to give you a virus? But in fact, viruses are not necessarily bad.”

Dr Parker is now leading a team working to alter the Ad5 virus with the aim of treating ovarian cancer, one of the most common occurrences of the disease amongst women in the UK.

Read more about Cardiff Day in diolch
**Ice Age mystery uncovered**

A study undertaken by Cardiff’s School of Earth and Ocean Sciences has shed light on a mysterious change in climate which saw temperatures fluctuate by 15°C over just a few decades, during the Ice Age period.

It was previously believed that flooding from melting icebergs was responsible for the dramatic change in temperature. However, Cardiff researchers have suggested that a rise in carbon dioxide levels may be the definitive factor.

The study indicates that after crossing a certain threshold – or tipping point – CO₂ can trigger a series of events leading to dramatic changes in climate.

“These findings show that there are ‘windows of opportunity’ within climate space where so-called boundary conditions, such as the level of atmospheric CO₂, make abrupt change more likely to occur,” said Professor Stephen Barker, co-author of the study.

**Jolly good fellows**

Wales’ national football team manager Chris Coleman OBE, Martin Lewis OBE (PgDip 1998), founder of MoneySavingExpert.com, and managing director of GE Aviation Wales La-Chun Lindsay were among those to be awarded Honorary Fellowships at Graduation Week in July.

Cardiff University was delighted to host 14 eminent figures from a diverse range of fields, including an editor-at-large of the Guardian, the director of Europol and one of the UK’s leading physiotherapists.

Alumni to be honoured also included the equality campaigner Rosie Moriarty-Simmonds OBE (BSc 1985) and chair of the Prince’s Trust in Wales Sir Derek Jones (BA 1974).

For a full list of honorary fellows, visit: cardiff.ac.uk/about/honorary-fellows

**The “Bobs” are beloved at JOMEC**

In our Spring 2017 feature, “Cardiff’s answer: train principled journalists”, Martin Lewis OBE (PgDip 1998) referred to his “glorious friction about stories” with “the old school hack and teacher Bob”.

The editorial team added a note suggesting Martin meant Professor Bob Franklin, current Professor of Journalism Studies. In fact, Martin was referring to the much-missed Robert “Bob” Atkins, who headed the postgraduate Diploma in Broadcast Journalism jointly with Colin Larcombe between 1992 and 2007.

Successive generations of journalism students are fortunate to have benefited from the teachings of more than one inspiring Bob.

**20 years of fighting crime**

A crime prevention model introduced by Cardiff academic Professor Jonathan Shepherd (DSc 2000) is celebrating 20 years of worldwide success.

In the last two decades, the Cardiff Model has been implemented internationally in justice systems from the United States to Australia.

The model was piloted in Cardiff after Professor Shepherd, a maxillofacial surgeon, realised that three-quarters of incidents resulting in hospital emergency treatment were unknown to police. “There were people on my operating table every week, injured by someone who was never brought to book,” he said.

Under the Cardiff Model, data from hospitals is shared with the police and local authorities.

When people are injured by violence, receptionists at emergency departments record the location and weapon used. This information is anonymised and combined with police data to inform violence prevention strategy and tactics. One example has been requiring pubs and clubs to serve drinks in shatter-proof plastic instead of traditional glass.

“The Cardiff Model has made a real difference,” Professor Shepherd said. “This has made a saving of over £5m per year in Cardiff’s health, social and criminal justice costs.”
Record numbers run for research

A record number of people ran the 2017 Cardiff University/Cardiff Half Marathon as part of #TeamCardiff, raising vital funds for cancer, neuroscience and mental health research at Cardiff University.

The event sold out for the first time in its history; 25,000 people tackled the 13.1 mile (21.1 kilometre) route in the heart of the city.

The 350-strong #TeamCardiff featured people of all different ages and backgrounds, ranging from current student Rosa Patel (Geography (Human) 2016-) to the event’s oldest runner, 85 year-old Brian Pemberton (MTh 2004).

Collectively, #TeamCardiff have raised £65,000, a sum which will significantly benefit early careers researchers working across the two fields.

Cardiff University has extended its title partnership with the Cardiff Half Marathon, one of the UK’s largest road races and an IAAF Silver Event, until 2020.

A world top 100 university

Cardiff University has been officially ranked inside the top 100 institutions globally in the 2017 Academic World Ranking of Universities, placing 99th.

The news follows rises in other respected international tables, including the QS World Rankings and the Times Higher Education World University Rankings.

In The Times/Sunday Times Good University Guide, Cardiff has moved up 11 places to 35th, officially being named Welsh University of the Year for the first time.

“At a time when the global university environment is ever more competitive, these polls indicate that our direction of travel is right,” said Vice-Chancellor Professor Colin Riordan.

“As a University we want to be a credit to Wales and key to the economic and social success of the nation, which is why it is pleasing we’ve been named Welsh University of the Year.”

Cardiff aspires to be consistently ranked inside the UK’s top 20 and the world’s 100 leading universities in the coming years.

Journalists of the future

The second Sue Lloyd-Roberts Scholarship has been awarded at Cardiff’s School of Journalism, Media and Cultural Studies.

Lauren Brown (Magazine Journalism 2017-) began her postgraduate course in September as the second recipient of the grant, which was created in memory of the late BBC journalist.

Students are selected on the basis of their passion for the issues to which Sue Lloyd-Roberts dedicated her journalistic career, including human rights, international affairs and environment.

The Scholarship has received funding from more than 50 individual donors including the BBC, Google and the Dalai Lama.

Inaugural recipient Grace Adeniji (Broadcast Journalism 2016-) (pictured), who completed her course over the summer, now works in BBC radio.

“The skills I have gained at Cardiff have laid a foundation for me to pursue a career in international journalism and be able to share local stories from all over the world,” she said.

Read more about the Scholarship in dioicth
Boost for detection of childhood genetic disorder

Researchers at Cardiff University have played an integral part in the development of a more accurate method of screening for Duchenne muscular dystrophy (DMD) in newborn babies.

DMD causes the gradual weakening of muscles, and is the most common fatal genetic condition in infants. It largely affects males – in the UK, approximately 100 boys are born with the disorder each year.

By analysing neonatal blood spots, researchers are able to detect enzymes emitted by damaged fibres. This excludes variations of the enzymes encountered in other screening methods, which can result from unrelated trauma.

Scientists identify two Alzheimer’s risk genes

A team of researchers at Cardiff University have determined two genes linked to the development of Alzheimer’s disease, creating new hope for advances in potential treatments.

The risk genes, not previously thought to be associated with the condition, were identified through a study which compared the DNA of tens of thousands of individuals with Alzheimer’s to age-matched people who were not sufferers.

Dr Rebecca Sims (BSc 2005, PhD 2009, MSc 2017), a Research Fellow in Cardiff’s School of Medicine, said: “These particular genes suggest that immune cells in the brain play a causal role in the disease and are also very good targets for potential drug treatment.”

There are around 850,000 people living with Alzheimer’s in the UK alone.

Advancing the test for blood cancer

New technology can measure the length of minuscule DNA structures within cancer cells, creating the potential to predict the treatment outcome of patients with different types of blood cancer.

Research from Cardiff’s School of Medicine has shown that through the detection of these sections of DNA – known as telomeres – it will be possible to accurately assess how the disease will progress in patients with bone marrow disorder.

Cardiff scientists clean up

Researchers from Cardiff’s Catalysis Institute have solved a century-old problem by creating a far more efficient method of producing methanol.

The traditional process involves breaking down natural gas at high temperatures, then reassembling the constituent chemicals. Cardiff scientists have discovered a method of making methanol in a much more energy-efficient way.

Rebecca McVicker (PhD 2015) said: “Low-temperature conversion of methane to methanol has sometimes been referred to as the holy grail of catalysis. It’s important because methane is our most abundant hydrocarbon and methanol can be used as both a fuel and a starting point for manufacturing many other chemicals. Using gold-palladium nanoparticles and readily-available molecular oxygen, we can achieve this conversion without the need for high temperatures and pressures.”

This cheaper, lower-energy method has the enormous potential for greener industrial production worldwide.
Tim Griffin

Tim Griffin (MBA 1989) recently stepped down as Chief Executive Officer of Dell UK. He now works on charitable projects, start-ups and on the advancement of Welsh rugby.

I’ve been visiting Cardiff from the day I was born. By the time I was 18 I was spending most of my holidays there, and when I visited other university towns none of them could really compare with my knowledge or love for the city.

In the end I applied to both UWIST [University of Wales Institute of Science & Technology] and UCC [University College, Cardiff]. Fortunately, I ended up at my first choice – UCC!

In the eighties, Cardiff was an electric city. It was alive with students, and I adored it. You could spend Saturday nights at the Dog and Duck and then move on to the Red Onion or Caroline Street for something to eat on the way home. We also regularly used to go to the Philharmonic on St Mary Street for Sunday lunch and jazz. Then there was the Chapter Theatre too, so there was a bit of culture going on! I’d had a rugby injury at school, so in my first two years I spent a lot of time up in Llandaff, rowing the Taff – wonderfully sunny summer afternoons and terribly cold winter mornings. All this before returning to my first passion, rugby, in my final two years in University.

When you say you studied Management and Psychology, people think you’re a mind reader. I really enjoyed the engagement the course sparked with everyone. I learnt a lot about human behaviour, and the idea that perception is a unique, individual thing. In any context, it’s important to put yourself in another person’s shoes. The MBA was intellectually stimulating; it really helped me advance my thinking about work and how businesses win.

The students coming out of university today are better prepared for a career than we were. One of the things I was always amazed at when leading Dell, was that a new group of interns would happily email me on their very first day. That’s a wonderful thing… in my day we would barely dare breathe in the Senior Partners’ presence. Feeling part of a community is fundamental to the success of any organisation, and social media has completely flattened hierarchies.

I’ve lived in Asia and Australia, where the biggest education for me was about people. I came back with a recognition of the diversity of culture, and a broader collective perspective. Cardiff’s endeavours to provide international opportunities are absolutely brilliant. I would recommend to anyone that they spend time working abroad to experience it for themselves.

In a large, complicated global business, you have to operate in a favour based economy. You are tasked with managing in the matrix – and where process isn’t immediately obvious, that means you have to understand how to get things done. Favours need reciprocity, and feeding the relationships that you need to operate is fundamental to success.

One of my interests is AI, and we have to adapt our social view of what machines can do for us. When I started my career, I was amazed by travelling on the driverless trains on the Docklands Light Railway. Today, nearly 30 years on there are talks of strike action because people are worried about train doors operating without human supervision. Education will play a key part in addressing the challenges of AI, and learning to accept it. With a shift in culture and the right training, I think we’ll adapt to the jobs of the future.

As a Non-Executive Director, I bring a different view to the Welsh Rugby Union. It’s a multi-million-pound operation, and needs good governance. It requires the commercial and business awareness to maximise revenues for investment – both in the national team, but also in the grassroots game – creating a harmonious ecosystem. A three legged stool… if those legs get out of kilter, you end up wobbly!

It’s crucial that universities support our athletes. They play an important part in developing elite sportspeople across all sports. Universities also hold a unique spot in the sensitive ecosystem of mass participation and lifelong enjoyment of sport – more people, more often, having more fun! Through research and education, they can encourage people to take up sport as part of a healthy lifestyle.

Having just left Dell after nearly 14 years, the future isn’t defined. The three tenets are charity, in which I’m passionately invested in tackling homelessness amongst young people, coaching and mentoring in the entrepreneurial community – and of course, my personal journey of learning, which is lifelong. I’ll continue to look for opportunities to stretch myself.

cardiff.ac.uk/cardiff-connect
WHY CARDIFF?

MY CARDIFF

[Images of various activities and scenes in Cardiff]
My Cardiff... is at the podium in St David’s Hall

Michael Bell (BMus 1980)

Founder of the Cardiff Philharmonic Orchestra

On Friday, 15 June next year, Michael Bell will be in St David’s Hall, arms aloft, ready to conduct the Cardiff Philharmonic Orchestra (CPO) as they perform Mahler’s 3rd symphony. “It’s a rare chance to hear one of the most uplifting works ever written,” Michael says.

It’s a huge undertaking. Mahler believed “a symphony must be like the world, it must contain everything”, and the 3rd certainly lives up to that. It’s scored for a large orchestra, two choruses and a soloist. But for Michael, it’s worth it. “It’s Mahler’s hymn to nature,” he says, “and its sheer majesty can take your breath away.”

The CPO has brought the majesty of music to audiences in Cardiff and around the world for the last 35 years. Michael formed the orchestra when he left the University.

“I chose Cardiff because it had a real emphasis on making music.” Michael says. “Both the city and the University offered an unparalleled musical environment. I made great friends and when my course finished, there were a lot of us looking for a musical outlet.” Encouraged by Alun Hoddinott, then Head of Cardiff’s School of Music, Michael suggested a one-off charity concert in St David’s Cathedral.

“I was so nervous I thought I was going to be sick in the font! But we got through it. Afterwards, we were all rather elated. So we said, alright then. Let’s do one more.

“Thirty-five years on, we’re a community-based orchestra now, but students still come and play with us, and I love it when they do.”

As Wales’ premier non-professional orchestra, the CPO has had some very special guest performers, from Sir Bryn Terfel and Sir Karl Jenkins (BMus 1966, Hon 2005) to Hollywood actor Michael Sheen, Bonnie Tyler and even Lord Neil Kinnock (BA 1966). “When Brian Blessed came to narrate Prokofiev’s Peter and the Wolf for us,” Michael reminisces, “we changed the duck’s name to Gordon, so Brian could end the concert by saying his famous line, ‘Gordon’s alive!’”

The orchestra has often gone on tour, but Michael thinks of St David’s Hall as their “spiritual home”. “I always tell the orchestra that it doesn’t matter if we perform to a capacity house, or a handful of people; we must be at the top of our game. That is what an orchestra does.”

Both the city and the University offered an unparalleled musical environment

Michael takes on Darth Vader before the Cardiff Philharmonic Orchestra’s performance of ‘A Night at the Movies’. They have performed this series for over a decade, with the 2017 edition celebrating the work of John Williams.
SYMPHONIE N°

1.

Langsam. Schleppend. Wie ein Naturlaut.

1. 2. Flöte

Piccolo (3. Flöte)

1. Oboe

Engl. Horn (3. Okt.)

1. Clarinette in B
For Sabrina Cohen-Hatton, life as a PhD student was pretty intense. “I’d be in the lab running experiments at 5am, then do a full shift in work, go home for dinner and, after putting my baby to bed, be back out at 7pm for a night shift at the University.”

Though strenuous, such a hectic schedule will sound familiar to many doctoral students. Where Sabrina differed is that her day job involved commanding the Fire Brigade’s response to buildings burning at temperatures of almost 600ºC. She joined the Fire Brigade aged just 18, and completed her undergraduate, masters and PhD degrees while a serving officer.

“The number of years you’re working on a PhD... the amount of time you spend with your supervisor can end up lasting longer than a lot of marriages,” she jokes.

“Luckily for me, my supervisor [Professor Rob Honey] gave me the best science training I could ever ask for.”

Based in Cardiff’s School of Psychology, Sabrina’s research field was behavioural neuroscience. Her work was focused on the ways in which everyday environmental factors can influence the decision-making process.

“It was through this research that I came up with the idea of fitting fire officers’ helmets with GoPro cameras,” she explains. “It gave helpful insight into firefighters’ decision making and it’s actually led to change in national policy.”

Now Deputy Assistant Commissioner with the London Fire Brigade, Sabrina has been implementing her academic findings as part of a “large scale national collaboration between the fire brigade and Cardiff University”.

The innovation has been lauded internationally, with Sabrina picking up an American Psychological Association award in Washington, D.C. this year. She dedicated this award to “all London firefighters who worked during the Grenfell Tower incident”.

The 20-hour days she put in as an academic on top of her day job – in stints of three weeks at a time – may have been difficult, but she has the satisfaction of knowing her research has made, and continues to make, a real difference.

“I firmly believe the result of the work I’ve done with Cardiff University means we’ve been able to make fire fighters safer. That’s the crucial factor for me; I’ve been able to improve the landscape of a job I’m very passionate about.”
Arriving in the Welsh capital for the first time, Rebecca followed a well-trodden path for first year students. “I wanted to try something new,” she says. “So I went along to the Freshers’ Fair. I was approached by a girl who is now my best friend, and who told me I looked like a rower.”

Today, she is part of a new cohort of GB rowers hoping to maintain the squad’s proud tradition of international success.

“Curiosity got the better of me and I joined the rowing club,” Rebecca admits. “I’m absolutely terrible at throwing and catching but I just found that I seemed to be ok at rowing. I became addicted to the fitness, friendship and competition that rowing brings.” It also brought her closer to her adopted home city: “I loved rowing up the Taff to the Millennium Stadium, and into the beautiful Bute Park, before going back down the river into Cardiff Bay.”

Having won the elite pairs event at Henley Women’s Regatta in her second season, Rebecca decided to continue rowing with the support of Cardiff University’s high performance programme, training alongside established global competitors at the Sport Wales National Centre.

The experience paid off. She joined the GB rowing team in 2016 and has competed in the 2017 World Championships in Florida. Beyond that? “My goal is Tokyo 2020. I’m driven to see how far I can go in the sport and that’s always the mindset I’ve adopted,” says Rebecca. “I never sat in Uni and said I wanted to go to the Olympics. It was just about giving it a go and progressing from there.”

Her undergraduate degree has shaped her sporting abilities in unexpected ways. “Psychology really helps me think about stress management and interaction with team mates,” she says.

It helps to define her on dry land, too. “Cardiff University helped me discover my two passions: rowing and social work. I’m a trained social worker and still work part time alongside my main occupation as a Lottery funded athlete.”
At a time when most first year students are pre-occupied with the excitement of a new life in a new city, Callum Drummond’s thoughts lay elsewhere: 16,000 kilometres away, on a remote Pacific Island where white sandy beaches are fringed by tall palm trees. For most of us, a tropical paradise is just a daydream. But Callum was remembering the good friends he’d made there.

“Before starting at Cardiff, I was volunteering for a charity called Think Pacific. It’s a social enterprise that brings gap year students to Fiji. The volunteers help lift Fijian children out of poverty, by building infrastructure and supporting education.

“That’s what first brought me to the shores of Batiki. I stayed with a Fijian family who really took me under their wing. By the time I left, I felt like part of the community.”

So strong was the attachment that at the end of his first semester, Callum returned to spend the Christmas break with his Fijian family.

“I started to think about the Vu ni Niu (coconut palms) scattered across the island. I knew there was high demand for coconut oil in UK. I realised we could export it home and use the profits to reinvest in the island.”

Callum had no prior interest in entrepreneurship. But with the help of Cardiff’s Enterprise Team, he wrote an effective business plan for Bula Batiki which went on to win SPARK, the University’s annual business ideas competition.

With the aid of a small grant, Callum flew back to Fiji and pitched his idea to the community. In an area where inhabitants eke out a living through subsistence farming and fishing, there was widespread support.

“We developed our packaging and began paying villagers for the production of coconut oil. “It takes only six coconuts to make one jar of oil, but each jar has an enormous impact. Selling our first 160 litres allowed the villagers to develop their houses and enabled children to go to school.”

In February 2017, Callum raised £8,000 through a successful crowdfunding campaign which he hopes to use to extend his model of sustainable enterprise to neighbouring islands.

“The island of Batiki has a land area of 12 square kilometres and a population of roughly 300 Fijians. The island has no roads or airport; Callum gets to the island via a three hour boat ride from the Fijian mainland.

In February 2017, Callum raised £8,000 through a successful crowdfunding campaign which he hopes to use to extend his model of sustainable enterprise to neighbouring islands.

“Then we can really start to make a difference. That’s where I see my future. All my hopes and dreams lie in Batiki.”

MY CARDIFF... is 17°47’S, 179°9’W

Callum Drummond

(BSc 2016)

Founder of Bula Batiki, a non-profit coconut oil company

The island of Batiki has a land area of 12 square kilometres and a population of roughly 300 Fijians. The island has no roads or airport; Callum gets to the island via a three hour boat ride from the Fijian mainland.

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Can you briefly explain what is meant by ADHD?

ADHD is a disabling and often misunderstood brain disorder. Its symptoms include severe inattentiveness, hyperactivity and impulsiveness. These symptoms typically onset at an early age, but may become more apparent when intellectual and social demands increase – for example at school. It is estimated between 1.4 and 3% of the population are affected. Children with ADHD often have other neurodevelopmental difficulties such as language, learning and autistic problems. ADHD can have lifelong consequences; those affected can continue to have ADHD in adult life, as well as developing new mental health and social difficulties such as depression.

What drew you to researching in this area?

I’ve always been passionate about child and adolescent psychiatry. I became interested in ADHD genetics while training as a child and adolescent psychiatrist within the NHS; I saw a family where all five children had ADHD. I believe that, in the field of child psychiatry, it is vitally important to generate high quality scientific evidence to inform practice and dispel stigma.

In 1999, you were made Wales’ first Professor in Child and Adolescent Psychiatry. Can you summarise developments in the field since then?

When I became a professor, genetic research into child psychiatry lagged behind other medical disorders. The significance of the genetic contribution was often misunderstood – either ignored, or seen in simplistic terms: disorders were the result of either genes or environment. Psychiatric disorders, like most common medical disorders, are a combination of both. In the past, parental behaviour was blamed for many child mental health problems including autism. However, we and others have found that ADHD runs in families; twin studies consistently show very high heritability.

We then turned to molecular genetic investigations. We found an increased burden of rare chromosomal deletions and duplications in ADHD and showed that there is an important overlap with other neurodevelopmental problems, notably, autism spectrum disorder and schizophrenia.

Finding environmental factors has been more difficult. I have been especially interested in environmental exposures whilst the baby is in the womb.

In one research project, we studied children born by IVF to assess the impact of both genetic and prenatal risk factors on ADHD. We were particularly interested in children who were genetically unrelated to the pregnant woman. If a prenatal exposure has a genuine causal effect on the baby it won’t matter if the mother is genetically related.

To our surprise, although we found that maternal smoking had a causal effect in lowering birth weight, it did not cause ADHD.

Research has helped change the conversation around ADHD and shifted blame which was often placed on parents. A lot of work remains, but it is encouraging that we have such a talented generation of new researchers, clinicians and students here in Cardiff who want to push the field forward.
My Cardiff... is light emitting molecules

Professor Ian Weeks (BSc 1976, PhD 1980, DSc 2009)

Acting head of Cardiff’s School of Medicine

Ian’s passion for science and invention started early. Even in his school days, he could be found making lasers from scratch, rummaging around the back of old TV sets and mixing chemical concoctions that, for safety’s sake, should probably have been left unmixed. “I’m amazed I survived,” he says.

By his own admission, though, he was “never a scholar”, adding “I wasn’t a great fit for formal education, and achieved less than impressive qualifications.” He credits becoming an undergraduate at Cardiff University with enabling him to achieve his potential. “I attended an Open Day and immediately felt at home here. And considering my old school chemistry teacher had reported I was “unlikely to achieve much…”, I think my first class honours in Chemistry speaks volumes about the quality of the Cardiff culture of teaching and learning.”

After taking both a BSc and PhD in Chemistry, Ian left for a brief period in industry. He returned to what was then the Welsh National School of Medicine to start postdoctoral research in medical biochemistry.

“Scientists at the time were searching for better ways of measuring clinically important biomarkers. Working within the School of Medicine, I was able to apply my knowledge of chemistry to this problem. My eureka moment led to the design and synthesis of a light-emitting molecule that could be spontaneously coupled to an antibody molecule, providing the basis of a new generation of tests for disease diagnosis.”

Ian’s discovery is now used in hundreds of millions of diagnostic tests each year, including tests for cancer, diabetes, and to screen donated blood for HIV and hepatitis. His team’s work has been recognised with a Queen’s Anniversary Prize, and been included in Universities UK’s list of the ‘top 100 life-changing discoveries’.

“I am constantly amazed how a few experiments I undertook back in the 1980s created real global impact,” Ian says. “Key to this success was the faith demonstrated in my work by senior colleagues, at a time when innovation and commercialisation of research by universities was far less developed than it is today. It is testimony to the skill and expertise of the numerous people who are ultimately required to translate major innovations from bench to bedside.”

“I have not yet quenched my thirst for innovation. Much of my work involves supporting the next generation of innovators as we tackle unmet clinical need, for example, in the areas of cancer, type 2 diabetes and wound healing. Collaboration between academics, clinicians and industry will be the key to unlocking scientific discovery and creating tomorrow’s innovations.”

Ian has recently contributed to a collaboration between Cardiff University, Cardiff and Vale University Health Board, and the global science company PerkinElmer, to develop a more reliable method for screening newborn babies for Duchenne muscular dystrophy.
My job is an adventure: I travel around Africa and meet amazing people.
After I left Cardiff, I spent time in Milan, and then started working for the Dutch menswear company, Suitsupply. That was my introduction to the fashion world. I learned more about fabrics, suits and the art of tailoring than I ever expected. Suitsupply wanted to expand into Africa, so I relocated to Johannesburg. While there, I was headhunted by a South African news crew, who had spotted an interview I had done on TV.

Television news wasn’t for me, but it got me thinking about how I could merge my role at Suitsupply with my newfound passion for telling the “African business story”.

Then I realized it was simple. Every day, I was fitting really successful and interesting businesspeople for suits. I’d leave each meeting with a wealth of new knowledge and business tips. I realize how great it would be to share these, and that’s how Tailored Business was born. In this series, I’ll be visiting 13 cities across Africa.

During my second year I founded a hip-hop dance society called Slash. We spent a lot of time pushing for visibility, gigs and members; it was hard work. Three years on from its inception, we’d grown to 30 members and secured a place in the top 10 UK hip-hop dance crews.

It was all fun at the time, but the things it taught me about building brands, managing groups and – in essence – starting a business, were invaluable.

I love what I do. I meet people who are making a huge impact in so many different fields. I’ve had coffee with the CEO of Java House, made a suit for the founder of Jamia and met Peter Okoye from Psquare, one of Nigeria’s most famous bands. Getting their perspective on the world is priceless and now I get to share that with everyone else.”
To be honest, my first impressions of Cardiff weren’t great. A grey, rainy, somewhat deprived city: not the most enticing place to go running. That was in 2009. I was starting a Professional Doctorate in Advanced Healthcare Practice. Cardiff had been a natural choice. I’d taken my Master’s degree through a Cardiff University outreach programme, based in Bavaria. It was a great experience: each student received so much attention. And I liked how ‘normal’ it was to study nursing in the UK. In Germany, where there is no such thing as a Professional Doctorate, people would have been asking, “Nursing? How can you study that?”. Cardiff University’s doctoral programme provided the guidance and structure I needed to undertake this new area of research.

Being in Cardiff also helped me rediscover my love of running. At the age of 21 I’d been diagnosed with advanced cancer, and because of my illness I hadn’t done any exercise for more than ten years. For me, running is both relaxing and stimulating. I can’t remember a single occasion when I didn’t come home from a run with a new idea. Lots of my doctorate was done on foot; I would take my phone with me, dictating all the bright (or not so bright!) thoughts I had for later.

And as I explored Cardiff, I came to love its diversity. It’s such a wonderful mix of Victorian arcades, modern architecture and green, sprawling parks; of languages, cultures and food. I love the way it can look so different, depending on your location and the time of day.

Taking on the half marathon as part of #TeamCardiff 2017 was one of the most exciting things I’ve ever done. It’s such a brilliant combination of so many things that matter to me. As a survivor of cancer, I’ll always be grateful for the research which enabled me to receive treatment and survive. As a researcher, I know how hard raising money for research can be, so I’m proud to help. As a Cardiff alumna, it was great to reconnect with the people in the School of Healthcare Sciences.

And it was great to run in Cardiff again. We had perfect weather, amazing support from the spectators, and a fast and furious course – I even achieved a personal best of 1:53.12! I didn’t expect that. Not. At. All.”

To learn more about #TeamCardiff and the 2018 Cardiff University/Cardiff Half Marathon, visit cardiff.ac.uk/cardiff-half
“I wasn’t in a great place when I arrived at University. I’ve always struggled with anxiety; initially I was on lots of medication. It only takes two hours for me to get home from Cardiff and that was a motivating factor in my choice. I wanted that safety net.

My anxiety started when I was 13 and built up from there. I love music and had learnt to play the guitar, playing in a few rock bands. Everything culminated in quite a dramatic way; I was 16 years-old, mid-concert, and actually had a bit of a breakdown – I walked off half-way through a performance.

After that things were pretty bad; I didn’t leave my house for six months. I did pull myself back but even now agoraphobia is something I struggle with. I haven’t been on holiday in six years.

Coming to University, however hard it was, opened up the world again. For me, the first year was all about just pushing through; I started to come off my medication gradually.

There were still hard times. I was in denial about my mental health issues. Things came to a head and I was in a place you could describe as suicidal. It was then I went to the University’s Student Support; they provided me with emergency counselling and really just kept me going.

It’s something I’m incredibly grateful for.

I’ve co-written an advice book and worked with the BBC and the Guardian. I’m always concerned by how underfunded mental health is at universities. To me, these aren’t just places of education; universities have a duty of care to their students. Hopefully we can lead by example for the rest of the UK.

There are so many things I want to do – I’m interested in journalism, maybe teaching. I think writing and music will always have my heart. In fact, I’ve been working on a book over the summer. It’s a fictionalisation of my experience which I hope will help others; it’s also about making my own peace with the whole experience.

I might have a finished manuscript by the time I graduate.”
“In late 2004, I was diagnosed with prostate cancer. It had escaped into my bloodstream and was both aggressive and incurable.

In an effort to make the best of my prognosis, I received hormone injections, radiotherapy and two batches of chemotherapy. But by 2012, options were running out. Further treatment would have required long journeys into England, and held no guarantees.

Then I was offered a test to see if I was suitable for a drugs trial at the Velindre Cancer Centre, a pioneering institution which collaborates with Cardiff University.

I have two sons. Improved treatments for prostate cancer could not be more important to me.

Four-and-a-half years have passed, and the treatment I have received so close to home has been outstanding. It goes beyond the tests, consent forms, expectation management and straight answers. There’s been whole-hearted support, a lot of laughter and some truly special people.

The Velindre team of doctors, researchers and specialists are the “hope” that keeps myself and others like me going in the middle of the night. I won’t pretend it’s easy. Being a clinical trialist requires a positive attitude, a sense of humour and an acceptance that there are, still, no guarantees. Oh, and a good book comes in useful – you can be on the ward for 14 hours at time.

But when first diagnosed back in 2004, I was given four years to live. Over the course of my treatment at Cardiff, I have gained a further nine – and four lovely grandchildren, all of whom have been born since I have been undergoing treatment.

When you’ve been given almost a decade in which to enjoy the gifts of life, finding the strength to go on comes that much easier.”

Read more from Alan in the accompanying edition of diolch.
“You can trace the Specsavers story as far back as 1953, when my father first qualified as an optician. I helped him in the summers, which is how I got into optics – I’ve no idea what I might have done otherwise.

“I went to the then Welsh College of Advanced Technology. It was one of few options outside London. I didn’t visit beforehand; in those days you registered by post and turned up! There were 17 of us based in the Redwood Building, and I met Doug [Doug Perkins FCOptom (BSc 1965, Hon 2005)] on the very first day of our course.

“He proposed marriage at the end of our first term.

“From early on, we had two principles. The first was that we weren’t going to work for anybody else. The second was, in an era where provision outside the NHS was expensive and waiting lists long, we were going to lower prices and see more people.

“When Doug and I started out we worked long hours because we knew if our business folded we wouldn’t get paid and we wouldn’t be able to look after our family.”

They built their practice, Bebbington and Perkins, into a successful chain of 23 outlets, which they sold in 1980. Specsavers was born four years later, when Mary was working for Citizens Advice and Doug was a college lecturer. Their office was their spare room, using a table-tennis table for their paperwork in the absence of a desk.

“The Specsavers brand came about with the deregulation of the optician’s market in the eighties. It meant non-optometrists could open practices, and many tasks, like dispensing glasses, could be delegated. Opticians were even allowed to advertise.

We’d had such fun running our own business that we wanted to share that privilege. Hence we now operate as a joint venture partnership, with 2,400 in-store optometrists the independent owners of Specsavers branches, serving 31 million customers worldwide.

“We certainly would not be in that position if it were not for our time in Cardiff.

“We come back often. A lot of Cardiff students now do their pre-registered year at Specsavers, so we like to visit the new premises [on Maindy Road] and talk to them. I know they’re really happy there; the facilities are some of the best in the country.”

The Perkins’ local pub was The Woodville, a Cathays institution which continues to thrive today. “Students were always beer drinkers in those days!” says Dame Mary.
Being a Red Arrows pilot was a childhood dream that I never let go. My dad was an RAF engineer, and my determination grew with every airshow I saw.

I began a flying scholarship at 16, and learned to pilot a plane before I could drive a car. Growing up in Newport, it was a strange feeling to have to ask my mum to drop me off at Cardiff Airport before barrelling about the skies on my own.

I was lucky enough to have the RAF sponsor me to go to Cardiff University to read Computing and Mathematics. I’m very grateful to this day for that choice; it set me up very well for my career. I also joined the University of Wales Air Squadron. We trained at the airport twice a week, and then in the summer we’d be sent all over Europe on exchanges, to be part of a fully-fledged squadron. It was a fantastic experience.

When I finished my studies, I trained on the Hawk aircraft and became an instructor at RAF Valley, on the island of Anglesey. Later, I was privileged to fly the iconic Harrier Jump Jet and the Tornado GR4 in support of NATO coalition troops in Afghanistan. It was a true honour.

Now, I feel incredibly lucky to be a Red Arrow. More people have been into space than put on the famous red flying suit. There are only nine pilots in the display team, and it takes six months of intensive training to become proficient at flying in your position.

There’s no typical day – in the summer you can be anywhere. Last year I was in China, Vietnam, Malaysia, Thailand and the Middle East. We took our display to 22 countries in six weeks, and greatly enjoyed our role as ambassadors for the best of British.

You have to pinch yourself every morning and sadly it can’t last forever. 2018 will be my last year on the team and happens to be the 100th anniversary of the RAF, and so a fantastic time to hang up the suit.

I don’t know what the future holds, but I met my wife at Cardiff and I think we will look to settle down there. It’s that special city that always puts a smile on your face.”

Read more from Mike at cardiff.ac.uk/cardiff-connect

Roedd dod i Gaerdydd yn brofiad cyffrous dros ben i ferch a oedd wedi'i magu yng nghefn gwlad canolfanbarth Cymru. O dan lygad barc Miss Howe yn Neuadd Aberdâr, buan iawn y gwnes i ffrindiau gydol oes ac ymgynebio â bywyd myfyriwr, o nosweithiau Sadwrn gwyl yn Mont Merence, Tito’s a Qui Qui’s, i'r darlithoedd naw o'r gloch mwy sidêt, ar yr efen Ladin yn yr iaith Gymraeg. Fe wnes i fentro enynn dicter Adran y Gymraeg, hyd y oed, pan sleifais i ffrwd i Baris i wylio Cymru’n chwarae Ffrainc – a’u trechu – mewn gêm rygli.

Ar ôl graddio, treuliais dair blynedd yn Rhydychen. Fodd bynnag, cefais fy nenu’n ôl i Gaerdydd; rwyf wedi bod yn darlithio yma ers 1979 – tystiolaeth ei n yn hun a oyniad lleoliad sydd wedi datblygu i fod yn ddimas fwyig a chosmopolitan.

Mae llawer wedi newid. Rwyf wedi gweithio o dan bump o Is-gangellorion, wedi bod yn Is-ddeon Cyfadran y Celfyddydau a’r Gwyddorau Cymdeithasol, a gweld Ysgol y Gymraeg yn addasu i ofynnion newydd yr 21ain ganrif. Yn fwy diweddar, mae darlithio y rhaglen Gymraeg o'r Brifysgol Caerdydd wedi galluogi cannoedd o fyfyrwyr, cartref a rhyngwladol, i ddysgu Gymraeg yn y rhan ac am ddim ym Mhrifysgol Caerdydd.

Mae'r Mabinogion yn cael ei ystyried yn un o gyfraniadau mwyaf Cymru i lenyddiaeth Ewrop. Mae'r cyfieithiad Sioned yn wreiddiol oedd iddo fod ar ddefnydd academaidd yn bennaf. Fodd bynnag, mae hŷn wedi arwain y gwaith wedi arwain at adfywiad ymhelli y tu hwnt i'r byd academaidd. Yn ôl Bardd Cenedlaethol Cymru, Gwyneth Lewis (Anrh. 2005): "Mae'r cyfieithiad wedi newid yr hyn sy’n bosibl ar gyfer ysgrifenwyr y Gymraeg a’r Saesneg, yng Nghymru a thu hwnt."

Mae’r Ysgol Y Gymraeg yw'r deychra o'r Gymraeg i bawb. Yn ei holl tystiolaeth, mae'r Ysgol Y Gymraeg wedi ei ddatblygu i fod yn ysgol gyfredinol a'r 21ain ganrif. Roedden nhw'n nodi'r deychra hwn i ddarllenwyr gyda'r Gymraeg, a'r 21ain ganrif wedi eu hystyried fel yr hyn sy'n bosibl ar gyfer ysgrifenwyr y Gymraeg a’r Saesneg.

Roedd o’n edrych ar sut y cafodd y straen hyn eu hailgru, gyda darluniau, ar gyfer cynulleidfaoedd y 19eg ganrif a dechrau’r 20fed ganrif.

Teg fyddai dweud bod Prifysgol Caerdydd wedi chwarae rhan allweddol yn y Gymraeg dros y 40 mlynedd diwethaf.

Mae'r Mabinogion wedi newid yr hyn sy'n bosibl ar gyfer ysgrifenwyr y Gymraeg a’r Saesneg, yng Nghymru a thu hwnt.

Read Sioned's 'My Cardiff' experience in English at cardiff.ac.uk/cardiff-connect
Researchers from Cardiff University used algorithms to analyse 1.6 million tweets related to the London riots that took place in 2011. They found that, by scanning Twitter, computer systems could have detected trouble in Enfield an hour and 23 minutes before police were alerted to it.

“In this research, we show that online social media is becoming the go-to place to report observations of everyday occurrences – including social disorder and terrestrial criminal activity,” said Dr Pete Burnap (BSc 2002, PhD 2011), co-author of the study.

While such analysis will not replace traditional policing resource on the ground, it will augment existing intelligence gathering, enabling the police to pinpoint where events are going on and predict where further incidents could potentially take place.

Michelle Terry is a bold, unexpected and possibly inspired choice for Shakespeare’s Globe

“Running Shakespeare’s Globe is a huge opportunity and Michelle Terry [BA 2001] strikes me as a bold, unexpected and possibly inspired choice to be the new artistic director. “As an actor, Terry has shown herself to have a vibrant presence, a fierce intelligence and a profound understanding of Shakespeare’s language.

“Terry, who did a degree in English at Cardiff University, not only has a capacity for analysis, she has also repeatedly revealed an actor’s intuitive understanding of Shakespeare.

“Some may question an actor’s capacity to run a major theatre. But [...] it was Laurence Olivier who created the National Theatre company at the Old Vic, and one easily forgets that British theatre for much of its history has been in the hands of actor-managers.

“At the moment, our theatre is in thrall to the continental notion of the director as the supreme creative artist. The appointment of Michelle Terry is a welcome corrective to that trend. If she goes on to restore Shakespeare’s language to the centre of the Globe experience, she will have done us all a great service.”

A Cardiff-based scholar of ancient Indian architecture has designed an ornate and highly complex temple that is being built in the ancient Hoysala tradition, in Karnataka, India. Since no new Hoysala-style temple has been built since the 14th century and there are no sthapatis (temple architects) practising the Hoysala style, the trust implementing the project hired Adam Hardy, professor of Asian architecture at Cardiff University.

“The design should perhaps be thought of as what the Hoysalas would have done next if they had built another great royal temple,” Hardy told Hindustan Times after his latest visit to Karnataka, where large granite blocks have been used to lay the platform. No cement is used; the rest of the temple is to be carved in soapstone, according to traditional methods.

Dedicated to Balaji, the temple is being built by the Sri Kalyana Venkateshwara Hoysala Art Foundation through crowdfunding and donations. Over 150 master sculptors are at work, besides training many more in the tradition. The temple is expected to be completed in 2030.

Passionate about ancient Indian temple architecture, Professor Hardy has written several books on the subject and has worked on temples in India and in the United Kingdom, particularly the Balaji temple in Birmingham.
At the start of her final year at Cardiff University, Vithiya Alphons (BSc 2017) was diagnosed with acute myeloid leukaemia. After initially being given just two months to live, Vithiya survived her battle with cancer and graduated in summer 2017.

At age 12 I started to lose my sight. I was later diagnosed with an eye condition called keratoconus. It’s a degenerative condition, so I began learning to read Braille. But then I was taken to an optometrist and thanks to their treatment, I was able to see again. I remember being amazed that someone could change my life so drastically, and I thought, that’s the kind of change I’d like to make. Cardiff University has the best optometry school in the UK so I was thrilled when I got in.

In my second year, I got the opportunity to help 1700 people in Moldova. I had the chance to volunteer as part of my course. We were there for five days, giving free eye tests and providing glasses in deprived villages. It was the most rewarding thing I’ve ever done and the highlight of my three years’ study.

I had the best days at Cardiff University. It helped that I had a wonderful group of friends; we made so many memories. I still miss Cardiff and can’t wait to return. In the spring, the walk around campus is beautiful, with all the cherry blossom and the petals blowing in the wind.

My diagnosis was shocking, but I was determined to stay strong. The thing I found most difficult was thinking about how it would affect my parents and younger brother; we’re an incredibly close-knit family. In the end, I just resolved to keep fighting. I didn’t ever consider anything else.

I had just two months to find a stem cell donor. The challenge to find a suitable match seemed daunting, particularly as not many people of Sri Lankan heritage are registered donors. But my family was incredible, organising donor drives and a social media campaign. The response was overwhelming; I got thousands of messages. As a massive “Potterhead”, to see the likes of J.K. Rowling get involved was fantastic. Not everyone gets that kind of support, and I was very grateful for it.

Less than two months after I’d completed my treatment I wanted to go back to University. The doctors weren’t too happy but I wanted to try it. It was hard; I’d been in hospital for ten months and received five rounds of chemotherapy, one round of radiation, as well as thousands of injections and tablets. I couldn’t get to lectures because after a bone marrow transplant you are like a new-born: you have no immunity. So I had to study on my own. In clinics, when I needed to treat members of the public face-to-face, they had to be vetted to make sure they had no coughs or colds.

Graduation day was amazing. Just a year after leaving hospital, there I was, graduating! The highlight of the day was my surprise party. We went for dinner and my entire family turned up with presents and bouquets. I honestly didn’t expect it, I was so happy!

No matter how tough things get, never give up. There were times during my treatment when giving up would have been the easier thing to do, but I reminded myself I had to keep going. If I can do it, then anyone can.

Since graduating, I’ve been to Portugal and spent quality time with my friends and family. One of my favourite hobbies is reading. It is my go-to thing, to escape into my own world.

In a year’s time I hope to have my own practice. I start work at Specsavers soon* and in the future I want to go into further study. My ultimate dream is to set up an eye foundation in Sri Lanka where I was born. We’re so lucky to live in this country where we know we’ll get the treatment we need. I want to give that kind of opportunity to the people in my home country.

*Turn to page 21 to see Dame Mary’s (BSc 1965, Hon 2005) story behind founding Specsavers with her husband Doug Perkins (BSc 1965, Hon 2005)
CAPTAIN KENNETH DAVIES NELSON (BSc 1949)
Alumnus, engineer and Cylch Caerdydd donor
1921 – 2017

Following in his father’s footsteps, Captain Kenneth Nelson joined Cardiff’s School of Engineering in 1941. He received the Page Prize in Engineering during his first year and interrupted his study to spend two years serving in Burma during World War II.

After graduating, Captain Nelson began working in Australia for the Victorian Water Commission. With a natural flair for writing, he published over 50 articles and five books over the course of his career.

Captain Nelson was passionate in his support of scholarships and the Trevithick Library at Cardiff University. He endowed The Nelson Scholarship in memory of his father Archibald Nelson, which will continue to support future generations of engineers at Cardiff University.

PROFESSOR DAVID VERNON MORGAN
Honorary Distinguished Professor and former Head of Cardiff’s School of Engineering 1941 – 2017

Professor David Vernon Morgan (known as Vernon) joined Cardiff as a Professor of Microelectronics in 1985, and went on to lead Cardiff’s School of Engineering until 2002. He remained a teacher and researcher until 2010, and an Honorary Distinguished Professor thereafter.

During his early time at the School, Vernon (with Professor Robin Williams) established and was Joint Director of the Cardiff III-V Semiconductor and Microelectronics Centre and was a major force in developing this area of research at Cardiff – founding the precursor to IQE, today Wales’ largest home-grown public limited company.

A visiting academic at institutions in Europe and North America, Vernon was awarded the Papal Cross by Pope John Paul II (Pro Ecclesia et Pontifica) for Distinguished Service to Higher Education in 2004.

To share the news of a Cardiff University staff, student or graduate’s recent passing, please contact alumni@cardiff.ac.uk

cardiff.ac.uk/cardiff-connect
Visit [cardiff.ac.uk/events](http://cardiff.ac.uk/events) to attend Cardiff University public events. The programme evolves constantly; current networking, lecture and performance series include:

- **Innovation Network** (for people who work in business, and business support)
- **Catastrophes: Past, Present and Potential** (School of Earth and Ocean Sciences)
- **Exploring the Past** (in collaboration with the Historical Association)
- **Conflict, Development and Disaster** (School of Modern Languages)
- **Concerts and John Bird Lectures** (School of Music performances and lectures)

Get invitations to special events for Cardiff alumni and friends by ensuring that your email address is up to date at [cardiff.ac.uk/alumni](http://cardiff.ac.uk/alumni). Highlights in 2018 include:

**Nature and nurture? Mining the human genome for mental health discoveries**
9 May 2018, 18.00-20.00
Royal Society, London
For more information please email: alumni@cardiff.ac.uk

**Cardiff Day**
9 June 2018, Cardiff
An invitation-only event for donors to Cardiff University

**From 3-11 August 2018, the National Eisteddfod will be in Cardiff for the first time in a decade!**

Cardiff University will host a range of special events on the Maes for Cardiff students, staff, alumni and friends. Sign up now for regular updates at [cardiff.ac.uk/alumni/events](http://cardiff.ac.uk/alumni/events)

If you would like guidance on organising your own alumni event, visit [cardiff.ac.uk/alumni](http://cardiff.ac.uk/alumni) or email alumni@cardiff.ac.uk
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