University of Dundee

Alumni Magazine

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STELLAR

NEW UNIVERSITY CHANCELLOR, JOCELYN BELL BURNELL.

2019 ISSUE



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Contents



Hello from Alumni Relations

The 2019 edition of The Bridge is a mixture of fantastic stories about you, our alumni, and the excellent research that is taking place here in Dundee. As a graduate we hope you take real pride in your University and our work which is changing lives around the world.

If you haven't done so already, please do sign up to Dundee Connect, our exclusive mentoring and networking platform for alumni and students. From offering CV advice, to providing information about your company, Dundee Connect is a great way to share your expertise and experience with others. We have recently upgraded the platform and there are plans to launch a Dundee Connect app so please do watch this space.

Like last year, we are delighted to offer you the opportunity to return to Dundee to walk down memory lane and witness all the changes that have taken place in the city in recent years. Please find more details in the centre of the magazine.

Finally, we very much hope you enjoy reading the 2019 edition of The Bridge.

Pam, Cara and Beth Alumni Relations Team

The Bridge is produced by the Department of External Relations at the University of Dundee, who include some of our own alumni!

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Alumni Magazine 2019

University of Dundee

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Welcome from the Principal

"We all need to shout a bit louder and farther about all that is great about Dundee." I am still in the relatively early stages of my relationship with the University, having taken on my role as Principal and Vice-Chancellor at the beginning of 2019, but I have been finding something which I am sure many of you will remember from your early days at Dundee. When I came here, from Lancaster University where I was Deputy Vice-Chancellor, I thought that Dundee was a good university. Now that I have been here for a few months I find it is even better than I had expected.

On one of my initial visits to the University I was shown around the School of Life Sciences and in quick succession I was taken to a laboratory where they were working on new breakthroughs relating to cancer, then another where they are doing amazing work that is increasing our understanding of Parkinson's Disease, and then the Drug Discovery Unit where they developed a compound that has the potential both to cure and prevent malaria. I found a similar story at our School of Medicine, one of the very best in the UK and conducting research that is among the most cited around the world, helping change lives locally and globally.

I said to a friend soon after, 'Imagine being able to lead a University where they are helping to cure malaria, to beat cancer, to unlock the secrets that might make an incurable disease like Parkinson's curable?'

Then I went to our Duncan of Jordanstone College of Art & Design, where close together we have leading work in Product Design that is helping people with physical disabilities and researchers developing new methods of underwater imaging, in the midst of a creative hub packed with young artists, designers and craftspeople.

We are a university that undertakes world-changing research, works in partnership with our students to offer an outstanding student experience, and makes a difference by transforming lives.

That partnership with students is part of what really sets Dundee apart. The students here were another of the very strong factors that persuaded me to come here. They are articulate, bright, engaged and positive. They are a fantastic asset to this university. A consistent message from my visits to Schools across the University has been our students telling me that our staff are excellent. A common sentiment is 'they have our back'. That is a great thing to hear, and something I am sure will be familiar to you from your time here.

My story of finding out that Dundee is even better than I expected does point to something I think you can help us with. It shouldn't be a surprise that so many great things are happening here, but the fact is our reputation doesn't quite match our performance. We all need to shout a bit louder and farther about all that is great about Dundee.

I already know you, our alumni, are doing this. Last year I hosted an alumni dinner for my previous university. This was in the Hong Kong Club. When I introduced myself and mentioned that I was soon to be joining the University of Dundee they immediately started telling me how good Dundee was and what a great reputation it had in Hong Kong. They told me all of the best doctors and dentists in Hong Kong came from Dundee!

That was a great thing to hear, how the reputation of Dundee was so strong in a place as far from here as Hong Kong. We need to spread that message even wider and you can help us do that. So please do show your pride in Dundee and spread the message ever wider, of a University that is extraordinary, and that is changing and saving lives.

Professor Andrew Atherton
Principal and Vice Chancellor

Our university in numbers

We are one of the

UK's top 30

in The Times & Sunday Times Good University Guide 2019 – the Guide named us Scottish University of the Year in both 2016 and 2017

Top 10 in the UK

for student experience for the third successive year (National Student Survey 2018)

The University is home to more than

16000

students, helping to make Dundee Scotland's most student-friendly city We contribute more than

£740 million

every year to the Scottish economy, according to our most recent economic impact report

As of September 2019 we will be made up of

10 academic schools

with the establishment of the School of Business

of the students we are engaged with are from outside the UK

150+ nationalities representated on our campus

The results of the International Student Barometer Autumn 2018 survey show overall average satisfaction of

89.6%

among Dundee students, the second highest score in the UK and 6th globally

We are one of the largest employers in the east of Scotland, with more than

3000 staff

Introducing our Chancellor: Dame Jocelyn Bell Burnell

Dame Jocelyn Bell Burnell was appointed our Chancellor, the most senior position of the University, in 2018. Here she tells us about her love of science, fighting for fairness, and giving away \$3million.

The two passions which have crafted the career of Dame Jocelyn Bell Burnell were sparked at an early age. Her deep love of science developed when she was a child in Northern Ireland. The fight for equality and fairness began soon after.

"I knew as soon as we started to study it at school that I was good at science, and especially physics," said Jocelyn. "But when I went to start secondary school, this was the mid-1950s, we were told that girls could only study domestic science. So the issues of being a woman in science were made very obvious to me very early on.

"We fought that one and won and I got to study science. But then I felt much the same again as an undergraduate student when I got to university, where there were 49 men in my class and I was the only woman.

"That is something that has improved a lot although there is still clearly work to do. We are talking about generational changes. Getting society to change is a slow, heavy job. It takes time. And sometimes it is only when certain things are pointed out that we realise they are obvious."

She is a champion for positive change. She was one of the founders of the Athena SWAN programme which promotes gender equality and advancement. She is invited all over the world to speak about women in science and issues of fairness and equality.

The rates of invites increased exponentially late in 2018 when it was announced she had won the most lucrative prize in modern science, the Breakthrough Prize, for the discovery of radio pulsars. What created even more news than the award of the prize itself was that Jocelyn decided to give away the \$3 million that came with it, deciding to

use it to fund women, under-represented ethnic minority and refugee students to become physics researchers.

"I didn't want or need the money and I thought this was the best way to use it," she said. "We still have work to do to encourage women in science, but there is also a diversity and ethnicity issue. In particular we do not have enough people of black origin in physics. That is something I hope the prize money can help change. I am hoping we can do something for refugee PhDs. I am a great believer that people from minority groups can bring a fresh angle to things, different approaches that can bring great results."

The 'No-Bell' prize?

For many the award of the Breakthrough Prize was seen as correcting the mistake made when the Nobel Prize awarded in 1974 for the discovery of pulsars did not include her but instead went to senior researchers, including her PhD supervisor. This was despite Jocelyn having been the first to observe and analyse the data that revealed the existence of pulsars, which are a type of neutron star.

Her exclusion was criticised at the time and has been referred to ever since as one of the great injustices of science. Yet she has retained an impressive diplomacy throughout that time.

"I did not feel a great sense of injustice," she said. "That sense was expressed much more by my colleagues. I was quite impressed they were getting so cross about it. The running joke around our lab was that it was the 'No-Bell Prize'. It was the people of my generation, the younger members of the science community, who really felt it.

"I knew as soon as we started to study it at school that I was good at science, and especially physics."



Dame Jocelyn Bell Burnell

"The way to change this and show people where there are problems is simple. It is telling stories, presenting the facts. That's all I have to do and I know it is enough when I hear the gasps of horror from the audience. Sometimes people just shake their heads in disbelief. But then you hope they take it away and think about it and help bring about change."

Career lift-off

Due to her husband's job in local government, Jocelyn spent a long time following his career path as his job moved. That meant never establishing a long-term academic position herself. Whenever her husband's job moved, the first task was to get out a map and see if there was a university within 20 miles that had an astronomy department.

"I had a succession of jobs, but happily all astronomy related. Sometimes that was as a research assistant, sometimes I was a computer programmer, or an administrator. But it was always interesting and I was lucky in that I got to work in a couple of places where astronomy was booming at the time I was there.

"Eventually, quite late on in most people's career terms, I got a job as Head of Physics with the Open University. There was a sense of this being the job I had been waiting for all that time. I had graduate students for the first time when I was 50! I loved it. There was a strong emphasis on teaching and I had ten or twelve very good years. My first graduate student is now a Professor in Oxford and has the office next door to me, which is a very happy outcome."

A great honour

The University of Dundee recognised her contributions to science and as a champion for equality with an honorary degree in 2017. While here in Dundee she also delivered a public lecture that created such a strong impact that it immediately marked her as an outstanding candidate to be our Chancellor.

"When I was asked to be Chancellor I was amazed and surprised but I had huge respect for Professor Pete Downes, who was the Principal then and made the approach, so I treated it very seriously. I was aware there is not a lot of astrophysics here so there was an academic mismatch, but I also recognised Dundee was a place on the up, there were so many good things happening here. It is a great honour to be the Chancellor."



"My first graduate student is now a Professor in Oxford and has the office next door to me, which is a very happy outcome."

Graduation is icing on the cake

When Avril Burns left school at the age of 16 with no Highers, University was the furthest thing from her mind. She certainly could not have foreseen the day that she not only graduated but was feted across the national media for doing so.



Avril became our 100,000th graduate at last year's Winter Graduation ceremony at the Caird Hall, a milestone marked when retiring Principal and Vice-Chancellor Professor Sir Pete Downes stopped Avril on stage to share her story with the audience.

Avril is used to serving up treats for Sir Andy Murray and his family as Head Pastry Chef at the tennis great's luxury Cromlix Hotel in Dunblane and her graduation marked game, set and match on a return to education that began five years previously.

The Teaching Qualification in Further Education she received built on the HNC and HND that Avril obtained from Forth Valley College, before matriculating on the distance learning programme at Dundee.

Avril's academic achievements have already allowed her to diversify her career and she now works as a part-time lecturer at Fife College's Dunfermline campus, in addition to her role at Cromlix Hotel. She now hopes to take on further lecturing opportunities to fulfil her ambition of nurturing the next generation of master bakers and patisserie chefs.

"I left school at 16 and immediately began working in kitchens," explained Avril. "I've now been a pastry chef for 20 years and have been lucky enough to work with and learn from some really great chefs. About five years ago I started thinking about what else I might want to do and thought that I had a lot to give back so I started college as a way of getting into lecturing."

In graduating, Avril followed in the footsteps of 99,999 other students who have graduated from Dundee since we became an independent institution in 1967. Passing the 100,000 mark was symbolic of the way we have established ourselves as one of Scotland's leading universities for teaching and research over the past five decades, according to Professor Sir Pete Downes.

"The fact we have now had more than 100,000 graduates means we now have more than 100,000 success stories to celebrate," he said. "Avril's story particularly resonates with me as I didn't go to University when I left school but instead went to college while working full-time, so I know just how hard she must have worked to get where she has."

"About five years ago I started thinking about what else I might want to do and thought that I had a lot to give back."

Transforming the lives of children in Indonesia



Lina Tjindra tells us how she came to study in Dundee and her passion for changing the fortunes of children in her home country.

She was thousands of miles away in Indonesia but there was very little doubt in Lina's mind that the University of Dundee was where she wanted to start the next chapter of her studies. When Lina searched for a specific course that suited her education and interests, she came across the MSc in Leadership and Innovation which is part of the University's School of Education and Social Work. "After reading the subject's explanation, I just fell in love with it," explained Lina. At this point her application for the Chevening Scholarship, the UK government's programme for developing global leaders, was still under consideration. This scholarship would support her studies and so progressing without confirmation was a risk. But Lina was undeterred. "I filled in the application form and completed all the requirements needed," said Lina. "It turned out it was meant to be. The letter of acceptance from the University of Dundee came to my email one day before I had an interview with the Chevening Panel." Having impressed the panel, Lina was chosen for their 2017 batch of Scholars.

The MSc in Leadership and Innovation covers a wide range of subjects including social work, education and policing. It helps students develop their knowledge and skills relating to professional practice and leadership. Lina graduated in 2018 and has now returned to Indonesia, filled with motivation to make a difference in her country from the experience that she had gained at Dundee. "I want to help other organisations that need advice and to tutor them from the initiation stage, to the developing process and then to the evaluation stage," said Lina.

"I provide training for people who need to extend their skills in communication, leadership, fundraising and organising."

Lina also wants to share her knowledge and skills with others who share the same aim – the aim of protecting the rights of children, especially those who are marginalised. It is this aim which has led her, along with other colleagues, to develop a venture called Koperasi IMAN. This project intends to empower the small and medium sized entrepreneurs in rural locations, particularly coffee farmers, cocoa planters, fishermen, salted-fish producers and female weavers.

Lina also works with a charity called Sahabat Anak, meaning Child's Friend, which provides education and champions the rights of urban children in Indonesia. "Currently I am on the Advisory Board and I'm responsible for the long-term strategic planning for the organisation as well as fundraising for the daily operational cost of the organisation."

Lina's supervisor during her time at University, Professor Divya Jindal-Snape, has nothing but praise for her work. "Lina's Masters dissertation focused on why volunteers trust a voluntary organisation," explained Professor Jindal-Snape. "I hope she publishes her study as the research is highly original and insightful. She was an ideal citizen of the University community, not only doing well herself, but also encouraging and supporting her peers. Her passion for Sahabat Anak and commitment to making a difference shone through."

For Lina, her calling to work with marginalised people in Indonesia is a universal one. "Each of us can change the lives of others. I believe in this so much, that I've made it my life mission."

I am

Lina Tjindra Leadership and Innovation, Class of 2018

Trustee of child protection foundation, Sahabat Anak



At the movies

From Directors, to animators, Dundee has many connections to the film industry. We caught up with some of our alumni in the business to find out what they are currently working on.



Meg Park
Visual Development Artist - Walt Disney
Animation Studios
Animation, 2010

"My work focuses mainly on character design. The first Disney movie I got to work on was Wreck It Ralph 2: Ralph Breaks the Internet. Animated filmmaking is a lengthy process and the film is constantly evolving and undergoing story changes throughout production. You have to be ready to roll with the changes and to support the director's vision every step of the way. Before I moved to Disney I worked as a freelance artist for four years. I was designing for feature films, short films, TV, commercials and children's books. For me the best thing about being a Visual Development Artist is simply being able to spend most of the day drawing. Seeing those drawings evolve into living, moving animated characters is really exciting."



Alison Leaf Set Dresser – Pixar Electronic Imaging, 1990

"I get to work closely with animators and the art department to develop and build the environments the characters move around in. After graduating, I worked for a handful of commercial production companies in London, then moved to California in 2001 to be a character animator. I ended up working on a number of films including Hulk and Van Helsing. In 2004, I made the move to Pixar Animation Studios and have been working there ever since. Pixar is quite unique because everything is produced in-house, from writing and concept art, through to editing and sound, so you have to be able to work thoughtfully and efficiently as a team. You need to keep ahead of technology, be versatile and respectful. There is not room for too many egos when there are so many people working on a project."



Chris McDonald Senior Shot Creator - The Third Floor Animation, 2009

"After graduating I was offered a position as a runner at The Mill in London, a VFX and post production company. From there, I moved up to their 3D department and have subsequently worked at a number of companies on feature films such as Kingsman, Dunkirk, and Justice League. I currently work in previsualisation at The Third Floor as a senior shot creator. Our work is essential in helping directors and VFX producers to see what does and doesn't work in a scene, and how best to approach filming it. We do this by creating an animated version using 3D software. Most recently, I was proud to have worked on season eight of Game of Thrones."



Katrina Hitz-Tough Senior Vice President Brand Strategy and Marketing at Sony Pictures Entertainment, Geography, 1995

(This interview with Katrina was conducted hours after it was announced Spiderman Into the Spider-Verse was nominated for an Oscar, a film Katrina helped to promote - it went on to win!)

"I like to solve puzzles. When I get a new movie project I have to find out how it can enter the consumer product market. Are there toys to sell? Will there be a game to accompany the film? All questions I need to answer. I can get there in a number of ways, including working with directors and even looking at the film's script. After I graduated I worked for a market research company and before I knew it I was leading consumer research for Mattel. When talking about toys all day every day, I caught the eye of Disney. They asked me to work for LEGO, where I helped to develop new toy lines. I started working for Sony in 2017. It might seem like a stretch from studying Geography at Dundee, but through essay writing I learned how to get to the point. An extremely valuable skill I use on a daily basis at work."



Jonathan MacIntosh Senior Animator - Industrial Light & Magic Animation-Electronic Media, 2001

"Industrial Light & Magic is a motion picture visual effects company that was founded by George Lucas. I'm currently working in Vancouver and was the Lead Animator for the live action movie of Disney's Aladdin. It is my job to bring characters or creatures to life. I either create performances from scratch, or use a combination of motion capture and animation. At the start of my career I freelanced in Scotland on various kids TV shows and commercials. Then I moved to London to work in film and before I knew it I was offered a job in Canada. I've been lucky enough to animate aliens, superheroes, Stormtroopers and even a Deadpool. There's a lot of overtime, a lot of constructive criticism, and you rarely meet anyone famous. However, I get to make monsters for a living. So basically I'm doing my dream job from when I was 12 years old!"

"I get to make monsters for a living. So basically I'm doing my dream job from when I was 12 years old!"

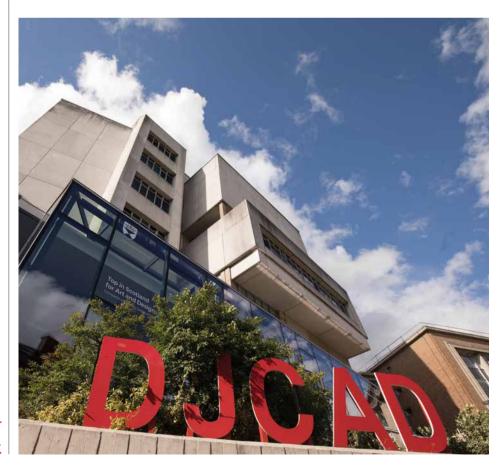
Degree Show 2019

For 10 days our Matthew and Crawford buildings transform themselves into one of the country's biggest galleries, showcasing the culmination of several years of creative development and hard work.

More than 350 students from 21 countries across three continents showcased their work at the 2019 Duncan of Jordanstone College of Art & Design and Architecture Degree Show, demonstrating the international draw of the University. The architects, artists and designers exhibiting this year came to Dundee from Asia, Europe and North America, and drew on influences from around the world to produce visually stunning and thought-provoking

artwork, as well as design that seeks to solve some of society's biggest problems.

Thousands of visitors took in Degree Show this year, generating in excess of £1.5 million for the local economy, and many came from far beyond the city's boundaries. With Dundee enjoying a tourism boom on the back of the opening of V&A Dundee and other venues hosting exhibitions and events, Degree Show played a major role in the city's biggest ever week of art and design.



Thousands of visitors took in the Degree Show during its 10-day run, generating in excess of £1.5 million for the local economy.







Highlights of the 2019 show included:

- Fourteen Chinese architects who came to Dundee as part of a pioneering partnership between the University of Dundee and Wuhan University.
- Allison Meaghan, a former doctor turned jewellery designer whose work incorporated human genetic code.
- → Alana Hay, who encountered snow-loving Saudi Arabians, Serbian exiles, Mormon missionaries and people fighting back from addiction and homelessness as part of her project to capture the face of modern Dundee.
- Calum Stevenson, who drew upon childhood illness, medical imagery and brutalist architecture to create a dreamlike environment.
- Ryan Davren, who is brewing up a fashion storm after creating a range of glasses made from coffee grounds.
- Bethany Farmer, whose intricate ceramic sculptures pay homage to her grandmother's bungalow.
- Cal McCutcheon's animation, sculpture and paintings that explored ideas from a number of different perspectives.
- Tereza Chronakova's vision for a welcoming waterfront hub point for international visitors to Dundee and locals alike.

- 1. Calum Stevenson
- 2. Allison Meaghan
- 3. Ryan Davren

Building a screen against cancer

Professor Bob Steele's pioneering work to improve bowel cancer screening has deservedly placed him among the 'Nation's Lifesavers'.

Professor Bob Steele held a Chair in Surgery in our School of Medicine for 22 years and is one of the UK's leading authorities on cancer screening, which plays a vital role in detecting the disease in its earliest stages and increasing survival rates.

When working as a senior NHS registrar in the late 1980s, Professor Steele was struck by how many of the patients with bowel cancer died. Then he moved to Nottingham, where he found trials of bowel cancer screening were already happening.

"Most of the patients with colorectal cancer I had seen before had quite advanced disease and there sadly wasn't much we could do for them," said Professor Steele. "When I moved to Nottingham I found most of my patients were in the early stages of the disease, which is curable by surgery. That was a really motivating factor, seeing the effect of a public health intervention on the frontline."

Since arriving at the University of Dundee, Professor Steele has seen such an intervention save thousands of lives. He led the implementation of the Scottish Colorectal Cancer Screening Programme, which has become a model for how better screening can improve survival rates. Through his own research he has helped develop more sophisticated screening and cancer detection methods.

The impact of the bowel cancer screening programme continues to get stronger – it was announced in February 2019 that more Scots than ever are taking part in the screening, with the biggest increase among those living in the most deprived areas.

Screening is available to anyone aged 50 to 74 in Scotland, although older Scots can opt in. It has become a wryly celebrated part of the culture now that Scots know their 50th

birthday will bring an extra message – an envelope asking them to return to a sample for screening. Kits are sent to all eligible addresses and once returned, stool samples are analysed for traces of blood at the central screening centre in Dundee.

The test is particularly good at detecting cancer at an early stage, with around two thirds of those cases picked up through screening between May 2016 and April 2018 being found at stages one or two.

"We have more still to do, but the impact of screening is having a great effect in changing and saving the lives of people across Scotland." said Professor Steele.

"Evidence tells us that taking the test improves survival by 30%. I take part in it too, and send a kit to myself. On my wrist is a watch which tells me if I have taken 10,000 steps a day to keep up my exercise. I also try to keep a healthy diet, greatly helped by my wife Annie, a nutritionist with a real interest in cancer prevention. These are all actions I would recommend to anyone, as these are the relatively simple steps we can take to help prevent cancer.

"I know busy lives can get in the way of cancer screening and chances to be diagnosed early can be lost, but the value of making that time can be lifesaving."

Professor Steele's pioneering work on cancer screening was recognised with a CBE in 2018. He has been the clinical lead for the UK demonstration pilot that was used to inform the decision to introduce national screening programmes throughout the United Kingdom.

He was Professor of Surgery in the School of Medicine between 1996 and 2018, and is Co-Director of the Scottish Cancer Prevention Network.

"We have more still to do, but the impact of screening is having a great effect in changing and saving the lives of people across Scotland."



Communicating

science to business



When Yerassyl Tolebayev returned home to Kazakhstan he noticed something was not right with how the business world saw scientists. He decided to change that.

Since he was a young boy, Yerassyl knew he wanted to be a scientist. "When I was 12, I started a science project about a nuclear test site close to where I was born," said Yerassyl. "I was looking for a possible correlation between the test site and the number of local people with health problems." This small school project turned out to be the catalyst to Yerassyl's entire career. "My research terrified me," said Yerassyl. "As it turned out, there were a large number of people living locally who had been diagnosed with cancer." This led Yerassyl to ask more questions. His passion for science and an urge to help people was born.

Yerassyl was lucky enough to be awarded an international scholarship when he was 17. This gave him the opportunity to study at a university overseas. "I started looking at universities that held top world rankings in biological sciences," said Yerassyl. "Dundee was coming up time and time again." Yerassyl ended up being an exceptional student, and fully integrated himself into campus life. "The first day I arrived in Dundee I was taken aback by the beautiful buildings and nature of the city," said Yerassyl.

"I was lucky enough to make amazing friends for life. To me, Scotland is one of the greatest places on earth and I was so lucky to get the chance to live, work and study there." He was so proud to be an honorary Scotsman that he even wore a kilt to graduation. "I didn't do it for the pretty pictures," explained Yerassyl. "It was my tribute to Scotland for their hospitality, but also as a thank you for the knowledge that I gained at Dundee."

After spending four years in Dundee, Yerassyl returned to Kazakhstan. He joined the local South Kazakhstan Medical Academy in the Genomics lab as a young scientist. However, YerassvI soon noticed that Kazakhstan still needed to solve a number of problems to carry out quality scientific research. "When you are in a developed country, you will find the labs fully equipped with the top equipment, often funded by the government and businesses," said Yerassyl. "But in Kazakhstan we were struggling to finance projects. Our laboratory supplies were routinely being delivered late. Although that seems like a minor problem, it was down to businesses not understanding

Iam

Yerassyl Tolebayev Biological Sciences, Class of 2016

> Founder of S2B Intellectual Hub



we needed the products urgently." Taking this all into consideration, Yerassyl decided to do something about it. He set up the S2B Intellectual Hub.

S2B is a platform built to facilitate communication between science and businesses. Yerassyl and his team help scientists, universities and research institutions to promote their research more effectively. "Businesses don't integrate well with scientists in Kazakhstan," said Yerassyl. "We are now on hand to help scientists with their ideas. We can help build projects and be the bridge between them and the world of business." Scientists can upload their projects to S2B in a bid to attract a business investor. The Hub also works with scientists to teach them how to pitch their idea to catch their eye.

With S2B firmly up and running, Yerassyl plans to stay in Kazakhstan for some time. "My main goal is to be useful to my country," said Yerassyl. "Having moved to Dundee through government funding I feel the need to give back the knowledge I learned abroad. I hope my studies in Dundee help me to revolutionise science in Kazakhstan."

Our School of Life Sciences is a world-class academic institution with a reputation for the excellence of its research, its high-quality teaching and student experience, and the strong impact of its activities outside academia. Our research involves studying the molecular and cellular mechanisms underlying human and plant health and disease.

Our Drug Discovery Unit, the largest facility of its kind in the UK, tackles unmet medical need through small molecule drug discovery by bridging the gap between academia and the pharmaceutical industry. Research areas include neglected tropical diseases, neurodegenerative disorders and cancer. Last year, the first in human clinical trials commenced for a treatment for malaria that was discovered by Drug Discovery Unit scientists.

Our Medical Research Council Protein Phosphorylation and Ubiquitylation Unit has scientists and clinicians working side by side to understand the underlying causes of Parkinson's disease. Their aim is to be able to develop novel approaches to better diagnose and treat the disease.

Our division of Plant Sciences is based at the James Hutton Institute, whom we have a partnership agreement. This brings together extensive expertise and facilities to work on global challenges of food security, renewable energy, conservation and climate change.

DUSA celebrates 50 years!

1969 marked the formation of Dundee University Students' Association. To celebrate its 50th Anniversary we decided to reach out to some of the previous executive to find out about their time in student politics.



Michaela Smith Catering Convenor, 1988-1990

I started on the student union executive as the Catering Convenor and ended up as the Depute President of NUS (Scotland). My time with the student union was a rollercoaster of campaigns, event planning, joint working, 'negotiations', challenges, disappointments and victories. It really helped develop many of the skills and personal attributes I have relied upon ever since. This has been beneficial both at work and with other activities, including managing large scale community events as a volunteer and then a board member for the Leith Festival. Getting involved in the Student Union and student politics also gave me some fantastic lifelong friends. Genuinely 'character building'! I'm now a housing manager at the City of Edinburgh Council, following a good number of years working in housing and homelessness services.



Gaby Miller Honorary Secretary, 1996-1998

I really enjoyed being on Executive Committee I got to go to different universities and experience their way of doing things. In my second year I went with the rest of the Exec and campaigned against Student Loans at Parliament (that didn't work!). We had our official gowns on and attracted a lot of attention. I ended up being on the national news and was invited to go into Downing Street to have our photo taken. I stupidly gave my spot to the President so he went in instead... it remains my greatest regret. We also had tea in the MP's tea room in the Palace of Westminster with our local MP to discuss the matter. Since graduating I have qualified as a solicitor working mainly in public sector type work. I've done a lot of social welfare law. That has led me to what I do now which is chair various tribunals.



Eric Sanderson Deputy President, 1971-1972 President, 1972-1973

It was a time of active politics. There had been riots at the Sorbonne two years before I went to university and there was considerable unrest among the student population generally. Dundee was no exception. There were rent strikes and the one in Dundee ended up as front page news. After graduating in Law I trained as a Chartered Accountant. I joined British Linen Bank and I went on to become head of the division aged 32 and CEO of the Bank by the time I was 37. In 1999 I left to lead a turnaround as Executive Chairman of Kwik Fit Insurance Services. I was then appointed Chairman of MyTravel Group, which at the time was one of the two major holiday groups in Europe. Thereafter I was Chairman of MWB Group. I also returned to Dundee to serve 11 years on the Court of the University, with six years spent as Chairman.



Ellen Brooks
Vice President of Academia, 2017–2018

I was the first ever Vice President of Academia, which was the new and improved name for the Deputy President role! I was the lead contact for any academic issues and helped almost 200 students with mitigating circumstances, appeals and discipline cases. And as if that wasn't enough I was also the lead rep for internationalisation! I sat on committees representing the views of international students and worked hard to organise events that helped support our international students like our Mid-Autumn Festival and Chinese New Year celebrations. I now work in the University of Dundee's recruitment office as an International Officer for South Asia and the Americas. I wanted to go out into the world and make sure people knew about the University of Dundee and the amazing education experience we offer.



Iain MacKinnon Honorary Secretary, 2011-2013 President 2013-2015

I really enjoyed my time on the student executive. I wouldn't have run for four terms otherwise! It was a great experience, and it exposed me to parts of the University I had no idea existed. The best parts were when I had a real, tangible impact on the lives of students. Although as a non-sabbatical, getting free entry to the Union was always a plus. My first role after I finished up as President was very close to home; I joined the UK-wide Higher Education graduate scheme Ambitious Futures, working at both the University of Dundee and the University of Glasgow. This helped open up new potential career paths within the sector and beyond. After that I moved down to London to work in the UK Parliament. I'm currently head of the User Engagement Team here, bringing new technology to everyone who works in Parliament, including all the MPs and Peers.

"The best parts were when I had a real, tangible impact on the lives of students.
Although as a non-sabbatical, getting free entry to the Union was always a plus."

Dundee – the best place to live, work and study



The University is at the heart of a city whose reputation is growing all the time. We take you through some of sunny Dundee's best bits.

'Scotland's renaissance city'. One of the world's 'must visit' places. 'The coolest little city in Britain'. One of the 'best places to live in the UK'.

It seems the rest of the world is now waking up to what many of us have known for a long time, that Dundee has an awful lot to offer including great quality of life, increasing cultural and lifestyle options, and a wonderful setting. Not to mention the opportunity to work or study at a University which offers gold standard teaching, one of the best student experiences, and carries out world-class research which is making an impact around the world.

The ongoing transformation of Dundee, the impact of the opening of V&A Dundee and the £1billion redevelopment of the central waterfront area, have won the praise of Lonely Planet, Bloomberg, Vogue, GQ, the Wall Street Journal and National Geographic Magazine.

The Sunday Times named the city the 'Best Place to Live in Scotland' - and one of the best in the UK - in April 2019, quickly followed by one of the world's leading luxury and lifestyle bibles, Conde Nast Traveler, calling Dundee 'Scotland's renaissance city'.

The University has been at the heart of much of this transformation. It was here that the idea to bring V&A to Dundee was sparked and the University is one of the

core partners of the museum, which opened in September 2018 and attracted 500,000 visitors in its first six months.

We are one of the largest employers in the city, providing more than 3000 jobs, and we are increasingly international in our activity, with staff and students from more than 150 different countries.

Our students enjoy great teaching that was judged Gold standard - the highest possible rating - in the 2017 Teaching Excellence Framework (TEF), the major assessment of teaching quality in the United Kingdom.

We are a research-intensive university, delivering excellence and impact that is changing and saving lives. The inaugural Times Higher Education University Impact Rankings, published in April 2019, ranked Dundee 20th in the world in a table that recognises that the role of universities extends beyond research and teaching. They have a third mission revolving around engagement, knowledge transfer and innovation for societal good. These rankings measure the global higher education sector's success in delivering the United Nations' Sustainable Development Goals (SDGs).

All of this in the UK's only UNESCO City of Design, and with some of Scotland's most breathtaking scenery and outstanding outdoor life within easy reach.

We are a research-intensive university, delivering excellence and impact that is changing and saving lives.

WIN a weekend in Dundee!

After reading about all the great things Dundee has to offer, we thought you might want to come back.

So, we're giving you and a friend the chance to come back for the weekend!

We have partnered with **V&A Dundee** and **Hotel Indigo** for this amazing competition with a prize including:

- → Two nights B&B at Hotel Indigo Dundee, plus a meal at their restaurant, Daisy Tasker
- → A personalised tour of the campus and our archives
- Two tickets to the V&A Dundee exhibition 'Hello, Robot, Design between Human and Machine'.

To be in with a chance of winning this fabulous prize, all you have to do is send your name, degree and graduating year to:

alumni@dundee.ac.uk









By royal appointment



Mark Richardson was recently named as HM The Queen's Honorary Dental Surgeon. We find out more about his career since graduating.

After growing up in Carnoustie and attending the High School of Dundee, Group Captain Mark Richardson decided as a teenager that he wanted to become a dentist. He, perhaps naively, only applied to one institution, the University of Dundee. He graduated in 1989 but wanted to explore the world a little before settling down. "I had been offered a place at a practice in Carnoustie after graduation, but I didn't want to be tied down straight away after living my whole life in the Dundee area," Mark explained.

In his final year at university he spent a few days on work experience at RAF Leuchars. This gave him the idea to join the RAF as a dental officer. Now, 30 years on since his first commission in 1989, he has made a career out of it. In 2018, Group Captain Richardson was selected as the Chief Dental Officer (RAF), making him the most senior dentist in the Air Force. In 2019 he was appointed as Chief Dental Officer (Defence) with responsibility for delivering oral health to all military personnel in the UK and serving overseas.

As part of his responsibilities within the RAF as a vocational trainer, he needed to complete a Postgraduate Certificate in Medical Education and, being based in Germany at the time, it was important to him that the course was available online.

This led him back to his alma mater. "The education I received at the Dental School had given me the best start possible in my career, so when I was looking for an institution to study for this additional qualification, I liked the idea of studying with Dundee again," said Mark. "The Medical Education department had a very good reputation and the course was available online, so it ticked all the boxes. I enjoyed the certificate so much I decided to stay on to complete the full masters course."

In 2018, he was appointed to the position of an Honorary Dental Surgeon to Her Majesty the Queen. "I was nominated because of my role as the Chief Dental Officer in the RAF, which in itself I was delighted about," said Mark. "It was a fantastic feeling to be bestowed with this additional honour."

Despite his international career, Mark still recalls his time in Dundee with fondness and hopes to retire in the next few years and return to Scotland. "I still have a soft spot for Dundee and have some special memories of the city," he explained. "It is where I met my wife, Alison, a fellow Dundee dental graduate. When I retire from the Air Force after over 30 years' service, I would love to bring my career full circle and work at the Dental School as a clinical supervisor."

I am

Group Captain Mark Richardson
Dentistry, Class of 1988

Chief Dental Officer (Defence) and Queen's Honorary Dental Surgeon

Doing doctoral studies differently...

A new part-time course is aiming to help professionals develop the knowledge, skills and attributes required to tackle complex challenges facing society.



The Professional Doctorate is a doctoral level qualification with a specific focus on professional context and application to practice. Starting in January each year it is a part-time, blended learning degree taken over four years and combines online learning and two intensive six-day on-campus sessions per year. Modular in structure the programme also involves a thesis in years three and four.

"Current solutions to today's and tomorrow's problems are often not working," explains Programme Director Dr Linda McSwiggan. "The complexity requires a different type of professional - one who is equipped to work in a creative and collaborative way to find new solutions."

Gillian Morris, an adult nursing lecturer in the School of Nursing and Health Sciences, has just completed the first stage of the Doctorate and is already reaping the benefits. "It has certainly boosted my confidence and I can see it opening up new avenues of work," she said. "It has also widened my professional network. There are people on the course from a broad range of backgrounds including the police and education."

Fellow student Irena Teneva, an education consultant in London, is no stranger to juggling work and study. "All my degrees and qualifications have been acquired while combining work with studies," she said. "I'm enjoying doing the Prof Doc because it provides the opportunity to curate my own learning journey. I find that it helps me develop critical thinking and allows me to see the world through a different lens."

To find out more about the Professional Doctorate programme visit the website at **join. dundee.ac.uk/professionaldoctorates**. Or email, **professionaldoctorate@dundee.ac.uk**

"All my degrees and qualifications have been acquired while combining work with studies."

Journey to success



Our 50th Anniversary celebrations led to some of our alumni looking to make a difference. This led to the launch of a club dedicated to improving the lives of students.

Since 2015 the University of Dundee has been improving outcomes for young people in partnership with the Robertson Trust's innovative 'Journey to Success' scholarship programme. Robertson Scholars receive training, mentoring and skills development throughout their degree, to support their future careers. At the heart of the programme is a bursary to support scholars financially and this became our focus for a new event.

After hearing about the scheme during the University's 50th Anniversary celebrations, alumni David Briggs, Lord George Robertson, George Baird and Paul Illing decided they wanted to help. On 1 November 2018 they launched the 1967 Club at the House of Lords. The event was hosted by Lord Robertson and attended by 30 alumni and their partners.

Although fundraising is not strictly speaking allowed in the House of Lords, David and George shared not so subtly, their ambition to raise matched funds for Robertson Scholars, asking our alumni to support a scholar with a gift of up to £2,000 per annum throughout their degree. This would be doubled with match funding from the Robertson Trust.

It was hoped £100,000 could be raised for this inspiring cause. The generosity of our alumni was incredible and our target achieved, and exceeded. To date we have raised an amazing £150,000!

Stephanie Allen, market trader and 1999 Economics graduate, was one of the attendees who decided to give back.

"The gift of education is one that really can change lives," she said. "I aim to promote Dundee as a place of learning and assist those students that would have otherwise struggled financially."

We raised enough to fully fund up to eleven new Robertson Scholars in 2019/20. Some donors, such as Firoz Peera, have made a long-term commitment to invest in our students through support of the University's Scholarship and Bursary Fund. The success of the event inspired others to give and Giving Tuesday raised almost £10,000 for Robertson Scholars from individuals and the Ruby Trust. This outstanding achievement will have a far-reaching impact for young people over the course of their degree.

Scholarships and bursaries play a vital role in transforming lives and we are immensely grateful to all of our donors. Their gifts make a life changing difference to students at the University of Dundee.

The 1967 Club welcomes involvement from all of our alumni and we hope you have been inspired to join us in changing lives. If you would like to know more about the 1967 Club, or to discuss making a gift then please get in touch at development@dundee.ac.uk or on 01382 388824.

"I want to help ensure that financial hardship isn't a barrier to an individual realising their full potential."

Friends of the Show 2019

The *Friends of the Show* scheme invites local businesses to support some of the UK's top young artists, designers and architects as they prepare for the future.



Gold Friends of the Show

Gallery 48 Ltd Voigt Architects Limited

Silver Friends of the Show

AUTHOR Interiors Thorntons Law The West House

Bronze Friends of the Show

Dil'Se Restaurant Pretty Fly Workshop Redwood Leisure Dock St Studios Gallery Q You will have seen from our Degree Show article how much the event means to the city. Friends of the Show is a scheme that provides invaluable backing to graduating artists, designers and architects as they launch their extraordinary creative talent on the global stage.

Friends also play a key part in helping to attract new visitors to Dundee's vibrant cultural community. Interested businesses can choose from three levels of support and the range of opportunities depend on whether supporters sign up as a Bronze (£250), Silver (£500) or Gold (£1000) Friend. Opportunities include invitations to the Degree Show opening night, exclusive tours and events, materials to display in business windows and recognition on the exhibition website and in the catalogue.

"The Degree Show is the culmination of four years hard work by graduates and brings to the public stage an exciting range of highly creative work," said Professor Jeanette Paul, Acting Dean of Duncan of Jordanstone College of Art & Design. "By signing up as a Friend they will enhance the quality and profile of the show and in turn help our remarkable students. Degree Show provides a huge boost for local businesses and significant cultural cache for the city so we hope businesses and individuals back this initiative."

AUTHOR Interiors have chosen to be a silver friend this year. "We are excited to have the opportunity to support locally emerging artists and designers as they launch their talent nationally," said Iona Hopkins, Head of Business Development and Strategy for AUTHOR Interiors. "Through our own business we feature and collaborate with artisans and makers of beautiful pieces from across the British Isles, some of whom are alumni of DJCAD so we are delighted to help support the next generation."

To become a Friend or find out more about the scheme email development@dundee. ac.uk, call 01382 386648 or join online at uod.ac.uk/friends-of-the-show

Helping to create a

better everyday life

Rui Wang uses her engineering degree every day, whilst working for a world famous furniture giant. She tells us what it is like to help create over 250 products a year that end up in homes across the world.

Rui Wang first came to Dundee in 2010 from East China University of Science and Technology in Shanghai, as part of an exchange programme for one year. However, she ended up falling in love with the city and decided to stay to study her Masters in Biomedical Engineering. "My original major was Biotechnology, and my exchange programme was related to Mechanical Engineering, so Biomedical Engineering was a great direction to go," explained Rue. "I was also curious about living abroad. It turned out to be the best investment I have ever made."

After graduating in 2013, Rui moved to Italy to help her then employer build a new factory in China. After a years' experience with the company she realised that a factory setting was not for her and wanted to change to a career with a broader scope. She moved to global furniture company, IKEA, in 2014. She thought with her varied background of mechanical, electrical and biomedical engineering it would be a good fit. Rui is now helping IKEA to develop and launch new products that will be found in homes all over the world.

Rui works in the company's Shanghai office, their only design centre outside of Sweden. "IKEA's company value is to 'create a better everyday life for the many people', which is deeply rooted in the working culture too," said Rui. "New colleagues will have a buddy, and a mentor to help them get through their first few months. Colleagues are very willing to help, and love

to share." The office is built on a culture of team work. Rui works closely with designers, technicians and suppliers to make sure that the proposed designs are practical, cost effective and physically possible.

As a company proud of its work, the design centre is furnished entirely of IKEA products, from the office chairs to the kitchens. Rui and her team contribute to the 250 new products launched annually. Each new product needs to meet global safety standards as it will be for sale in all 422 stores around the world. On top of these strict safety requirements, IKEA demands extra 'potential miss-use' tests be applied to all new products to ensure that they have been tested for anything a customer throws at them. The design process can be quite long and complex. "When we develop products, it starts with a big scope and there is a lot of brain storming," said Rui. "For many products, not all of the original idea will survive, often only 25% of the initial design will remain in the final product. Normally it will take around from six to nine months to develop a new product, depending on how complex it is. Some products can take as long as two years."

Rui credits Dundee with giving her the space to gain perspective on her education. "Dundee really built the foundation of my career," she said. "It enhanced my background and educated me not just in terms of knowledge but also a whole way of thinking. It gave me the ability to plan for the future."

Iam

Rui Wang Biomedical Engineering, Class of 2012

Product Engineer for Ikea



Our School of Science & Engineering is home to world-leading research, tackling complex problems in areas such as energy, the environment, healthcare, infrastructure, forensic science and technology.

We are working with CERN to help upgrade the Large Hadron Collider, which could unlock further secrets of the building blocks of the universe. Our links with CERN are also creating opportunities for student projects at what is the largest science experiment in the world. Our collaboration is unique in the UK as our involvement is based around our expertise in materials engineering, mechanical engineering, civil engineering and computing, rather than particle physics research.

Our Leverhulme Research Centre for Forensic Science is developing new techniques and technology which will raise standards and improve the understanding of current forensic science publicly and within

For decades we have been one of the world's leading centres of research into augmentative and alternative communication technology, giving a voice to those with the most serious communication issues. We have a similarly long track record in concrete technology, with our latest research even adding a splash of colour to the famously grey substance.

Two weddings and a baby

We love a good romantic story and this year we've been very lucky to celebrate two weddings – including one on campus.



"It's a case of, when you know, you know," said Laura. "Our relationship didn't feel new. Even my mum had us married off as soon as she met him."

Despite meeting while they were both students, it took until they had graduated for Dominic and Laura Glasgow to get together. Dominic is currently a Media Relations Officer for the University. It was actually through his work that he reconnected with Laura. "I was gathering stories for the November graduation in 2016," explained Dominic. "Someone had told me that Laura and her sister might have been graduating at the same time. So I got in contact with them."

As it turned out, the sisters were not graduating at the same time, but it gave them the opportunity to start talking. "We ended up having our first date on fireworks night," said Laura. "We had kept it quiet, but at my graduation I came out of the Caird Hall and found him talking to my family." Graduation that day coincided with the annual Christmas light switch on. "We ended up waltzing down Reform Street," said Laura.

"I was wearing my Mum's big fur jacket and my graduation outfit. With all the lights and the music, it was a really beautiful night." It was not long before the pair were engaged. In September 2017, Dominic chose the beautiful location of Tentsmuir Beach in Fife to get down on one knee. "I had wanted to do it sooner, but couldn't find the time to ask her Dad," explained Dominic. "Actually the day I did ask for her hand, was the same day we were able to tell Laura's parents that she was pregnant." Tallulah Rose Glasgow arrived into the world in April last year, and was able to join her parents at their wedding in October.

Dominic even wore a kilt made of University of Dundee tartan on the day. Despite their relationship being a bit of a whirlwind, the pair say it was like coming home. "Our relationship didn't feel new," said Laura. "Even my mum had us married off as soon as she met him." Dominic added, "For us, everything happened at the right time."



"Wherever you get married is always special, but the Quad just had that extra touch. It was great to return to the place where we had so many memories."

Picking your wedding location can be stressful, but for Dundee graduates, Chris and Martyn Lewis, only the Geddes Quadrangle would do for their special day. The couple, who originally hit it off on a night out in DUSA back in 2005 said the tranquil quadrangle, tucked away in the heart of campus, was the ideal location for their ceremony.

The class of 2005 MPhil Transatlantic Politics graduate said, "When we first started thinking about where we wanted to get married after our engagement in July last year, we both instantly thought of the Geddes Quad – but we didn't know if it would even be a possibility," said Chris. "It holds a special place for us, it's where we used to go for walks and have lunch, so when Jill Webster from the Chaplaincy told us we might be able to get married there we were delighted.

"Wherever you get married is always special, but the Quad just had that extra touch. It was great to return to the place where we had so many memories. It's self-contained, picturesque and so green. It made standing up there with family and friends even more perfect. It was the best day ever!"

Since 1975, more than 800 people have tied the knot on campus, ranging from first year students to local farmers. Martyn, who graduated with a Masters in Architecture in 2009, says it's not difficult to see why. "The Geddes Quad is amazing for weddings. We imagined how it would be, but it exceeded our expectations on the day. It just seems like such an obvious place for a wedding – no matter what time of the year – and I can't believe it hasn't been used for more.

Martyn, who runs a successful ceramics studio in Broughty Ferry, added, "The University in general has such a community-village atmosphere, with everything within walking distance and with beautiful spots like Geddes and the accommodating staff, it worked perfectly."

Protecting rugby players of the future

Society has never been more health conscious than it is today, and that is no exception for the students, staff and alumni of the University of Dundee.

Whether you workout in the gym, play sports as part of a team, or just enjoy a gentle Sunday stroll, we all know the physical and mental benefits that come from being fit and active. But what if the activities we undertake in the pursuit of good health do more harm than good?

"People believe that it is better to exercise at any cost than not to exercise at all, but this attitude is completely wrong," said Professor Rami Abboud, Director of the University's Institute of Motion Analysis & Research (IMAR). "Physical exercise and sports are undoubtedly good for us when conducted properly, but they also place our bodies under great strain. While I would never want to encourage anybody not to exercise, it is important that any activity is conducted appropriately, or it risks causing significant long-term damage to the body."

Based at Ninewells, IMAR made headlines around the world last year after a study was published that recommended the mandatory wearing of headguards by rugby players.

Using a rig to replicate a player landing on the back of their head following a challenge, a selection of mainstream products were tested. The study found that even the least effective device could make a significant difference in preventing head injuries, such as concussion. The most effective headguards mitigated impact levels on the head by up to 47%.

With concussion a particularly controversial subject within rugby, the resulting media storm saw Professor Abboud both praised and pilloried by fellow academics, fans, and even professional players. As well as facing up to the rugby world, he has incurred the wrath of sports shoe manufacturers by claiming that expensive trainers fail to improve the wearer's running performance.

"I welcome controversy because it shows that we are doing our research properly," said Professor Abboud. "Science is a measurement of the truth and if you are vigilant with your science then you have no reason to be scared or intimidated by anybody. That obviously goes against the ethos of big manufacturers, who are wanting to tell you that you can have everything if you pay more money.

"Our studies show that human joints are just like the hinge on a door - we have a point that we can safely reach and if we go beyond that we get injured. No manufacturer of footwear or clothing can alter that."

He may be the thorn in the side of the leisure industry, but Professor Abboud's career could have turned out very differently. "My first degree is from the American University of Beirut and I originally intended to do a degree in Medical Electronics," explained Professor Abboud. "But the different terminologies between the American and the British systems meant that I pursued the wrong degree when I came to Dundee in 1988. By the time my visa came, the Biomedical and Rehabilitation Engineering course had started and the only available project for my MSc was in foot pressure analysis. The rest is history.

"I came in to this line of work by mistake, but if I could go back in time it is a mistake I would definitely hope to make again!"

I am

Professor Rami Abboud Biomedical and Rehabilitation Engineering, Class of 1989 (MSc) and 1995 (PhD)

> Head of Department of Orthopaedic and Trauma Surgery at the University of Dundee



Sports Alumni Fund

Dundee alumni are being asked to help the University's next generation of sports stars go for glory with the creation of the Sports Union Alumni Fund. Launched in January, the initiative gives Dundee graduates, members of the public and businesses the opportunity to contribute to the sustainable development of University sports clubs.

At present the Sports Union hosts more than 40 clubs, with the new fund established to help teams pursue innovative projects that support their development. Donors can specify an amount they wish to contribute to the fund or select from Bronze, Silver, Gold or Platinum packages, ranging in price from £350 to £5,000.

Rector and ultra-endurance cyclist Mark Beaumont said, "There is no better way for graduates to give back to their alma mater than to give current students greater access to sports and personal wellbeing."

To get involved visit: www.dundee.ac.uk/alumni/donate/ sportsunionalumnifund

Improving dental care in prisons



Andrew Mulford imagined his ideal career would be a life in the country. What he did not expect was to be treating patients in warzones and prisons.

I am

Andrew Mulford Dentistry, Class of 1984

Dentist for the Scottish Prison Service

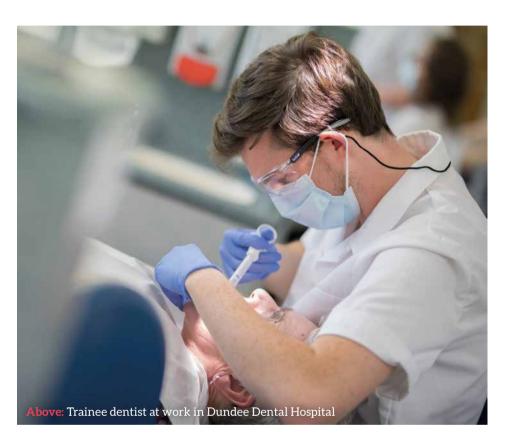
Since receiving his Dentistry degree in 1984, Andrew Mulford has gone on to have a vastly varied career. Initially thinking of himself as a bit of a 'country gent', he and a classmate took up practice in the Lake District, but after six months, Andrew was bored. "It wasn't what I had expected, and I really did not enjoy it," he recalled.

Seeking an opportunity that was part of a bigger team and a role with more structure, Andrew joined the British Army as a dental officer and went on to serve for 16 years. In addition to clinical tours as a dental officer he also served several tours as a Staff and Command officer and was deployed as a Commander Medical Officer in the Gulf and in Bosnia.

"I wanted to understand the role of an army officer and how it was different to that of a dental officer, so I sought opportunities to experience both," said Andrew. He joined the Royal Army Dental Corps and retired as a Lieutenant Colonel. Retiring from the Army in 2001, he now works in three part-time roles – in implant surgery, as an expert witness in legal cases, and as a Senior Community Dentist. For the latter role he is based in Scotland's prison service.

When Andrew started treating prisoners, he became aware of some very different oral health issues to what he would normally expect in adults. When prisoners are first incarcerated, there can be a drastic change in their routine and behaviour. It is not unusual for one prisoner to drink up to 20 cups of tea or coffee a day, get through a bag of sugar a week and litres of fizzy juice daily.

This drastic increase in sugar consumption is not the only factor impacting the oral health of prisoners. It is common for prisoners to be prescribed several medications at the same time for other conditions.



This causes less saliva to be produced, making it difficult to cleanse the mouth of food debris, which is further built up by smoking. These combined factors result in poor oral health in prisoners, and increased incidence of unusual health problems.

It is his work within the prison service which has led him to receive a National Institute for Health and Care Excellence scholarship. Andrew identified through his scholarship that there are four main issues for dental treatment when applied to patients in prison – a lack of time, inappropriate treatment guidelines, a limitation of treatment availability and increased regulation.

Current guidelines outline that an initial examination of a new patient can take up to 40 minutes, however the annual allocation per prisoner for dental treatment is 42 minutes. This would leave only two minutes to complete any treatment required. Andrew also observed

that advice for treatment is based on an assumption that the patient will follow any lifestyle advice given, but that prisoners do not always engage with that advice. Another key problem is the restrictions placed on some treatments; for example conditions usually seen in childhood can be prevalent in prisoners but with limited, or no, treatment guidance for adults. Finally, and crucially, there is a general reluctance for dentists to stray from these guidelines due to increased regulation.

As a result of his findings, Andrew has changed the model of care in the Scottish prisons he works in, reducing waiting lists and improving dental care. "I am now working on writing up my findings and plan to submit them to a peer reviewed journal for publication and, hopefully, replication in other areas of the UK." It isn't the life of the 'country gent' he once envisaged, but his impact across multiple spheres of dentistry has been considerable.

Did you know?

Professor Ruth Freeman and her research team have led pioneering research from the School of Dentistry into how oral health impacts on some of the most vulnerable sections of the society.

"Oral health can significantly impact on quality of life, from not being able to eat properly or having painful teeth, to more social aspects, with many feeling self-conscious or embarrassed about their appearance," said Professor Freeman.

"We have worked with people in prisons, where we see that rehabilitation can be helped by introducing people to better lifestyle choices using oral health mentoring and health coaching. We have also worked extensively with the homeless population through our 'Smile4Life' project.

"We know that there is a link in the homeless population between having decayed and missing teeth and depression. If we can identify these issues and help resolve them then it can have a great impact on the rest of that person's life."

Professor Freeman's work is part of the School of Dentistry's wide-ranging research profile. Dundee is consistently ranked among the best dental schools in the UK in university league tables.



Family Paynes

Kyle and Arran Payne are from a long line of nurses. We find out why they decided to follow in their family's footsteps and give back to those in need.

"If I'm being honest, I didn't think it was a career option for myself," admits Kyle.
"I wanted to be a firefighter. When I was looking at career destinations, nursing wasn't promoted for men." This was despite his great-grandfather and grandfather being nurses. "Our great grandfather worked as a charge nurse at a hospital near Nottingham," said Kyle. "Then our grandad worked at Stracathro Hospital near Brechin in the 50s. Our gran's brothers were both nurses and our uncle was a Health Care Assistant."

Kyle took the decision to enter mental health nursing in 2013, after working with people with learning difficulties for over ten years. "I liked hearing people's life stories," said Kyle. "I enjoyed listening to them and thought I could make a difference to their lives."

For Arran, his story is quite similar to his brother's. After working in healthcare part-time since he left school, he decided to go down another path. "I actually have an engineering degree," said Arran. "When I graduated however, the job market crashed. I couldn't get work anywhere. I was getting rejected due to lack of experience. So I had to ask myself "what do I have experience in?" The answer was healthcare." Arran applied to study mental health nursing and is currently in his second year of study.

Nursing is not just confined to the male line. Their mum was a nurse, their auntie and they also have a couple of cousins in the profession as well. "My mum worked with people with learning difficulties for years,"

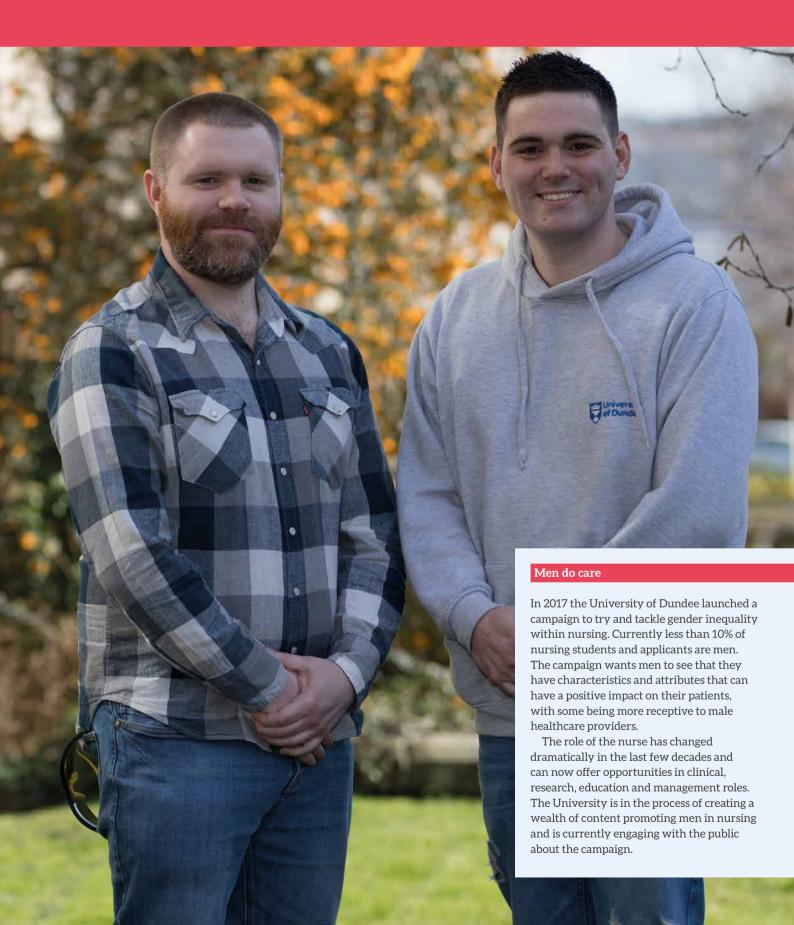
said Arran. "It's been great to learn from her and hear about her experiences." "We're lucky that we've got a lot of people to speak to," added Kyle. "Especially if things have been difficult throughout the day."

Kyle now works for the Carseview Crisis team in Dundee. He carries out mental health care in the community. This is an alternative to hospital admission, with the hope of helping the patient in their home environment. "The people that I'm sent to help are experiencing the worst time of their lives," said Kyle. "At university we were told we need to recognise our own values, ethics and morals. By doing that we can treat the patient correctly and in turn make their lives better."

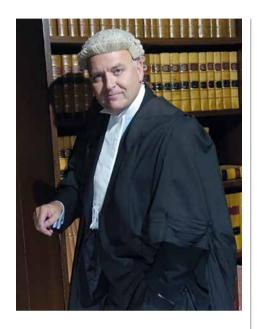
Arran is enjoying his time at Dundee. "The course is brilliant," said Arran. "I like the mix of placements and coursework. Half of our time is spent on the wards, learning from professionals on the job. Then the other half is spent at university, getting to the nitty gritty of what it's like to be a nurse."

Both Arran and Kyle see the value of their work. They both realise they're making a difference every day. "We need to have the ability to see the smallest details," said Kyle. "Something you might pass off as trivial could actually be one of the biggest parts of someone's life and the key to their treatment. "I feel we need to give people a sense of hope," added Arran. "We're helping them at the darkest point in their lives. Seeing them improve and get better just proves we are in the right job."

"I wanted to be a firefighter. When I was looking at career destinations, nursing wasn't promoted for men."



Law and order in the Glasgow Drug Court



Sheriff Lindsay Wood has been changing lives for 16 years as the Principal Sheriff in the Glasgow Drug Court. We spoke to him to find out more about his career so far.

After graduating from Dundee in 1977, Sheriff Lindsay Wood secured an apprenticeship with Arbroath law firm Clark Oliver, which would later merge to become Thorntons. "It was an absolutely brilliant firm," said Sheriff Wood. "They just looked after me. They gave me so much support." At just 24 he was made a partner, and remained so until he became a managing partner at Thorntons in 1998. It was around this time that he started to catch the eye of a couple of Sheriffs. "They were suggesting that I apply to be a temporary Sheriff," explained Sheriff Wood. "I laughed it off to begin with. I just thought that it was for other people, not me." Despite this initial hesitation, he applied and was successful.

In 2003 the opportunity to be a full time Sheriff came up. Following the recruitment process he was appointed and was then asked by the Sheriff Principal of Glasgow if he would like to preside in the city. A role he has been doing ever since.

It was not long before Sheriff Wood became involved with the Glasgow Drug Court. Launched in 2001 it aims to reduce the level of drug-related offending in the city. An individual is brought before the court following a conviction.

"Most people I see have been in and out of jail all their life," explained Sheriff Wood. "They fund their drug habit by committing crimes. Drug addiction is not something you can take two weeks off from in the summer. It's every day." Instead of going back to jail they are placed on a Drug Treatment and Testing Order (DTTO) for 18 months. Each person is allocated a drug addiction worker, a social worker and a nurse. The offenders are urine tested twice a week, and with most cases involving heroin, they are placed on a methadone programme. "You have to realise the pressures drug addicts are under," said Sheriff Wood. "Their dealers don't want to lose them as a customer. They are entrenched in a lifestyle. Which is why everyone at the drug court is there to help them get better." They take a holistic approach by giving them everything from health and lifestyle advice, to sourcing more suitable accommodation.

When they first go before Sheriff Lindsay Wood he applies tactics to try and get them to change their ways. "I tell them straight off that if they do not change, they will have a premature death," said Sheriff Wood. "There's always a tense hush in the court after that. But it's true, and they need to know it."

Iam

Sheriff Lindsay Wood Law, Class of 1977

Glasgow Sheriff who sits on the Glasgow Drug Court

they exist, in the science underpinning

Working in partnership with the Judiciary

is a critical component of the work of the

Centre, bringing science and law together

in a unique interdisciplinary collaboration

forensic evidence used in our courts.

pioneered in Dundee.



Above: Silence in the University's moot court

up their own drug courts. He is extremely

grateful to those who have helped him

throughout his career. "To be a Sheriff in

Glasgow is a privilege," he said "Sitting in

the drug court is particularly special.

Working for a tech giant

IBM is an information technology company which operates on a global scale. IBM employs a number of our graduates across the world and a few of them have shared with us their story of how their University of Dundee degree has shaped their career.





Yolanda Diez-Andino Sancho Financial Economics, 1999 Onsite Technical Support Lead, Madrid, Spain

It's my job to coordinate the onsite technical support for Spain, Portugal, Greece and Israel at IBM. My degree and the fact that it was done in English, opened the doors to me to a broader labour market, allowing me to join one of the biggest technology companies in the world. My time at the University of Dundee was definitely an amazing life experience and even though I love my work now, I still treasure my memories of those days with some nostalgia when I think of my lecturers, my mates, the campus and all its facilities. I enjoy attending the anniversary events the University organises for alumni and I am looking forward to being back in Dundee for the next one.

Stephen Leonard Physics and Microcomputer Systems, 1989 General Manager IBM North America, New York, USA.

I am responsible for revenue, profit and client satisfaction for the full range of IBM's business in the United States and Canada. Since joining IBM in 1990 as a technical instructor in London, I have held a variety of country, regional and leadership roles across the organisation. I served as Chief Executive of IBM United Kingdom and Ireland for three years as well as Chairman of IBM United Kingdom and Ireland for eight years. I am a native of Scotland and part of the GlobalScot Network. Since graduating, I have missed playing football around the River Tay and the comradery with my classmates. I cherish my life-long friends that I made during my time at the University of Dundee.

"My time at the University of Dundee was definitely an amazing life experience and even if I love my work now, I still treasure my memories of those days."





Alexei Matveyev Business Economics with Marketing, 2007 Digital Marketing Manager, Edinburgh, UK

I am responsible for digital marketing campaigns for Public Sector, Retail and Consumer Products industries for IBM in UK and Ireland. I work with colleagues across IBM, marketing agencies and external publishers to create effective digital journeys for our current and prospective new clients. As part of my degree, I had a mix of Computing, IT, Economics and Marketing modules which helped me to build a solid foundation of marketing principles as well as nurturing my passion for business and technology. In my current role I call upon the technical skills I learned in the Computing Department when I need to occasionally tinker with HTML coding, optimise our webpages for campaigns or make sure that URLs are trafficked correctly.

Laura-Anne Douglas Scots and English Law, 2016 Legal and Treasury Analyst, New York, USA

My team manage IBM Corporation's global funding and investment needs. My focus as a Legal and Treasury Analyst is the regulatory environment surrounding Financial Structures and Derivatives - working with Legal and Treasury to develop processes to monitor the regulatory environment. I owe a lot to Dundee for creating a strong foundation to my career. Given the plethora of opportunities on campus, there was no shortage of activities to engage in. From The Enterprise Gym to Street Law. I solidified what interested me about my career early on. Dundee also gave me so many wonderful friends, and taught me Strip the Willow at many a ceilidh. I'll miss it forever. Plus, people laugh when you tell them about 'Twa pork pehs, an' an ingin in an' aw'.

IBM

International Business Machines
Corporation (IBM) is an American
multinational information technology
company headquartered in Armonk,
New York, with operations in over
170 countries. The company began in
1911, founded in Endicott, New York, as
the Computing-Tabulating-Recording
Company (CTR) and was renamed
'International Business Machines' in 1924.

IBM produces and sells computer hardware, middleware and software. and provides hosting and consulting services in areas ranging from mainframe computers to nanotechnology. IBM is also a major research organization, holding the record for most US patents generated by a business (as of 2019) for 26 consecutive years. Inventions by IBM include the automated teller machine (ATM), the floppy disk, the hard disk drive, the magnetic stripe card, the relational database, the SQL programming language, the UPC barcode, and dynamic random-access memory (DRAM). The IBM mainframe, exemplified by the System/360, was the dominant computing platform during the 1960s and 1970s.

Nicknamed Big Blue, IBM is one of 30 companies included in the Dow Jones Industrial Average and one of the world's largest employers, with (as of 2017) over 380,000 employees, known as 'IBMers'.

Reunions and events

We are always delighted to welcome our alumni back to campus. Please do get in touch if you are planning to return by emailing alumni@dundee.ac.uk. We can help to put you in touch with classmates and arrange campus and department tours.



Return from Oz

We were delighted to welcome James Taylor (Architecture, 1960) back to campus. James lives in Australia and was returning to Scotland to meet up with family including his niece, Roz Taylor, who works in the School of Medicine. James and Roz are pictured with his wife, Marnie, after their tour of Architecture. He said, "How teaching has changed. Where are the T-squares and drawing boards?! Happy memories of my university days".







- 1. James, Marnie and Roz Taylor
- 2. Class of 1987 Geology
- 3. Class of 1978 Dentists
- 4. Class of 1978 Medics

Taking Dundee to the world

We have a network of alumni groups across the world - in Dundee, Nigeria, New York, Boston, Hong Kong, Malaysia, Singapore, Beijing, Shanghai, Shenzhen, Kuwait and most recently in London, Belfast, Toronto, Indonesia, Mumbai and Delhi,

As our global ambassadors, our groups are a chance for alumni to help with our plans for transformation and growth throughout the world. As an ambassador you can help with the following:

- → Help organise alumni events and activities
- Welcome and orientate alumni who are visiting or have re-located to your area
- → Help mentor new graduates, provide career advice and assistance in finding jobs locally
- → Help the University's international team during recruitment fairs and provide assistance in exploring partnership or articulation opportunities
- → Help maintain up-to-date contact details for alumni in your area and communicate these updates to the Development and Alumni Relations Office in accordance with data protection regulations, having gained consent from individual members
- → Host a pre-departure event in your region or country for new students and applicants about to leave for Dundee
- > Fund a scholarship for a deserving student to study at the University of Dundee
- → Help to enhance the global reputation of the University

If you are interested in getting involved please email alumni@dundee.ac.uk











- 1. London alumni group launch, December 2018
- 2. Shenzhen alumni gathering, May 2019
- 3. Tartan Day Parade, New York, April 2019
- 4. Indonesia alumni group launch, January 2019
- 5. St Andrews Day Reception, High Commissioner's Residence, Delhi, November 2018



Book in brief: The Unmaking of Ellie Rook

Sandra Ireland graduated in 2013 with a degree in English and Creative Writing. Since then she has published two books with *The Unmaking of Ellie Rook* due to be released in July 2019.

Desperate to escape her 'kid from the scrapyard' reputation, Ellie Rook has forged a new life for herself abroad, but tragedy strikes when her mother disappears near a notorious waterfall. In the wake of her mother's disappearance, Ellie is forced to confront some disturbing truths about the family she left behind and the woman she has become.

I let myself in the back door. It's like falling through a hole in time, with all the usual suspects sitting round the table: my father, River, Shelby Smith. The teatime smell of cucumber and tinned salmon makes my stomach cramp. Unable to face airline food, I've flown nearly 6000 miles fuelled by only water and crisps.

My father is buttering a slice of white bread, wiping his knife compulsively on the side of his plate as he always does. He stops, mid wipe, when he sees me and remains very still. River gets up in slow motion, comes to engulf me in a bear hug that blocks out everything else. He's taller than me now, with muscles of iron. He lets go eventually, leaving me smelling of some cheap teen cologne. There's a new sharpness to his face, his eyes.

I shed my rucksack and sink into a chair. River gets a mug from the dresser and pours tea. My father still hasn't moved. He rubs his silver beard, but it's Shelby, the adopted Rook, who reaches over to grasp my hand.

'Tell me again.' I've barely spoken to anyone in twenty-four hours and my voice comes out all croaky. 'Tell me what happened.'

'It was an accident,' River says. He's still standing there with the teapot, beside our mother's empty chair, and he looks so like her - that hesitant stance, the way he hides behind a shock of dark hair. I rise and take the teapot from him.

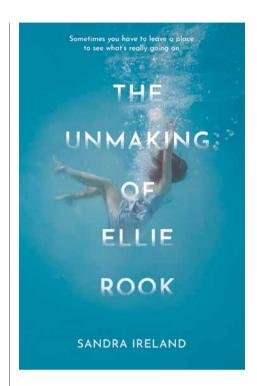
'Go on. It's okay. Tell me everything. You were at the Den of Finella?' I replace the teapot carefully on its iron trivet.

'We'd gone for a walk, Mum and me. How many times have we done that? I – I was standing right next to her, at the top of the waterfall.' I nod slowly, rub his bony shoulder as if to ease the words out of him. 'I didn't actually see what happened. I turned away for a second and she must have slipped somehow. I heard her cry out and then—' His eyes are fixed on the floor tiles.

'What? What did you see?'

He looks up, but his gaze flinches from mine. 'I didn't see anything after that. She was just - gone...'

The Unmaking of Ellie Rook by Sandra Ireland will be released in July 2019 and published by Polygon. £8.99 RRP.



"I didn't actually see what happened. I turned away for a second and she must have slipped somehow. I heard her cry out and then—"

University of **Dundee**

Postgraduate Open Day 2019

Wednesday 6 November

Master's information 2pm - 6pm PhD information 5pm - 7pm



Dalhousie Building University of Dundee Main Campus

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