

Universities  
Scotland



# MAKING IT HAPPEN

Enterprise & Entrepreneurship Education

“There’s a lot of talk about whether or not people should go to university or straight into setting up their business, but to me the two aren’t mutually exclusive. I wouldn’t have come across the idea for the wristband if I hadn’t been studying medicine. University is a great way of getting ideas, skills and experience. What’s been most helpful has been the support from Dundee.”

Christopher McCann

Christopher is one of a fast-growing number of university students to mix the knowledge and inspiration from time spent in higher education with the support and advice that universities can offer as a springboard into entrepreneurship.

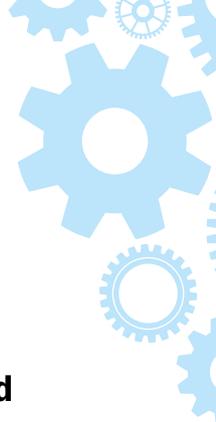


STUDENT&GRADUATE ENTREPRENEUR

### Christopher McCann

Founder & CEO of Snap40 and student at the University of Dundee

A medical student at the University of Dundee, Christopher is developing a new wearable-technology wristband that detects very early-stage deterioration in the condition of patients. Snap40 aims to save lives, reduce unnecessary hospitalisations and lead to earlier patient discharges. The wristband monitors patient information one hundred times a second and interprets this data using patent-pending technology which pre-emptively alerts healthcare staff of negative changes in a patient’s health in real time, allowing them to make earlier interventions for patient care.



## Scotland's higher education sector has three roles to play in making Scotland a world-leading entrepreneurial and enterprising nation.

### 1 Developing and supporting student and graduate entrepreneurs.

People like Christopher opposite, and Maggie, Victoria, James, Matthew and many more featured here. Higher education can provide the stimulus, the encouragement and the practical hands-on advice our students need to believe they can start their own venture. We know the ambition is there but we need to support them over the 'confidence gap' that stops many people from taking the leap. This gap means that only 5.8 per cent of Scots expect to start a business in the next three years.<sup>1</sup> We aim to support more of our graduates to go on and establish their own enterprises, creating their own job and jobs for others in the process.

### 2 Developing student and graduate intra-preneurs.

This will be the majority of our graduates; people who take their drive, their ideas and intuition and make a difference in other people's businesses. People who will add value, spot opportunities and help companies and organisations to grow. We believe we can help all of our graduates to have the entrepreneurial mind-set that will make a difference to the places they do work, including SMEs, the public and third sector.

**Entrepreneurship and innovation go hand-in-hand. Our plans for entrepreneurship dovetail with our *Five-Point Plan for Innovation*, launched at the beginning of 2015. The *Five-Point Plan* is focused on ways to make it easier for businesses and others to work with universities on their innovation and so drive a step-change in Scotland's innovative performance.**

### 3 Developing and supporting our staff to become entrepreneurs.

We will ensure that the great store of new ideas generated within our universities from our research, innovation, and the creativity and discovery of our staff are translated into the outside world – sometimes by the staff themselves, sometimes by others – to find commercial and social applications.



<sup>1</sup>GEM Scotland 2014. Table 3.3 page 11.

## **All of Scotland's 19 higher education institutions are committed to enterprise and entrepreneurship.**

To reinforce that commitment, and signal our intent to do more, every higher education institution in Scotland agreed this shared commitment and set of actions in October 2015.

This commitment provides scope for the distinct missions of 19 diverse institutions.

*Universities make a vital contribution to enterprise and entrepreneurship in our economy. This is most evident in the enterprising mind-set, skills and ambition of our students, in the companies created by our students and staff, and in our broader support for businesses' innovation capacity.*

*Each university is able to point to its distinctive and considerable achievements and each is committed to deliver further success - both singly and in partnership across the sector and with business and government.*

*We make this commitment now recognising that we must build on success if we are to meet global competition and secure inclusive economic growth. We will set an ambitious agenda for further action by universities and our partners.*

# Cross-sector actions

- 1** We will review the curricula we teach to further embed enterprise and entrepreneurship. We have asked QAA Scotland to work with us and to spend 2016-17 focussing on a cross-sector project on enterprise and entrepreneurship in higher education.
- 2** We commit ourselves to a 25 per cent increase in the number of student start-ups over the next three years.
- 3** We commit ourselves to a 25 per cent increase in the number of students and staff taking part in enterprise and entrepreneurship workshops and similar activities over the next three years. This would bring the total to over 14,000.
- 4** The culture in our institutions is important. We will drive further cultural change by:
  - a** Exploring how collaboration might increase access to incubation services and mentoring. This should include innovative ways to ensure our students living in rural and deprived areas can benefit.
  - b** Working with our alumni and other networks to identify more entrepreneurs who can support our plans, including their contribution to the enterprise training we can offer Scottish businesses.
  - c** Bringing together those who train postgraduate research students in Scotland in January 2016 to ensure that enterprise and entrepreneurship is a part of the training that early-career researchers receive.
- 5** We will work with our partners across the public agencies to explore how we can host more national and local business creation services. In doing so universities can enhance their role as hubs for entrepreneurship and innovation support in their communities.
- 6** We will offer every student an opportunity for work-related experience during their degree programme including placements, mentoring, enterprise opportunities, field trips and case studies.
- 7** Where universities offer work placements to students we will ensure they are fair work; either paid and/or credit bearing as part of the curriculum. This will take some time but we want to get there.
- 8** We will provide the Innovation Scotland Forum and Scotland Can Do with regular updates on our achievements.





## Victoria Hamilton

Graduate of the University of Strathclyde

## From classroom project to product in the market

Victoria Hamilton recently launched her business, VH Innovation, to commercialise a revolutionary kneepad design aimed at the professional trades, construction and joiner market. A product design engineering student at the University of Strathclyde, Victoria took inspiration from her father, a joiner, who often complained that kneepads on the market cut into the back of his knees and focused pressure on the same part of his joint. Victoria developed Recoil with a patented, innovative spring suspension system to address this.

Victoria received support and encouragement from her department and then the University's Strathclyde Entrepreneurial Network. Going on to win the Santander Universities Entrepreneurship Awards, and the Scottish Institute for Enterprise - Young Innovators Challenge gave Victoria the confidence to focus entirely on turning Recoil into a reality. She was inducted into the Strathclyde *Rising Star* programme, a six-month accelerator that provided her with experienced mentorship and free office space in the Strathclyde Enterprise Hub. She was also able to take advantage of the skilled researcher base at the University to prove claims about the product.

With support from Strathclyde, Victoria has accelerated the business from a final-year design project to a fully-functioning business on the verge of launching its first product. Production was given the go-ahead in October 2015, after a win at the *Scottish EDGE* fund in June. The *EDGE* win has enabled Victoria to produce 85 per cent of her product in Scotland. Recoil is set to launch in January 2016 with interest from a US/Canadian kneepad brand and support from a UK distributor.



**FACT 1:**  
All of Scotland's higher education institutions have a strategic commitment to enterprise and entrepreneurship.<sup>2</sup>

<sup>2</sup> Based on analysis of strategic documents from Scotland's 19 higher education institutions.



**James McIlroy &  
Matthew Bracchi**

Studying at the University  
of Aberdeen



## Social enterprise in the healthcare sector

Two fourth year medical students, James McIlroy and Matthew Bracchi, studying at the University of Aberdeen have formed EuroBiotix, a social enterprise focused on helping sufferers of *Clostridium difficile* (C.diff). The venture works towards helping sufferers receive a procedure called faecal microbiota transplantation more easily through the NHS. Recent tests have found this procedure cured eight in ten patients compared to only three in ten using conventional methods. EuroBiotix intends to use a blood bank model for transplants to address current cost and screening challenges doctors face with this form of treatment.

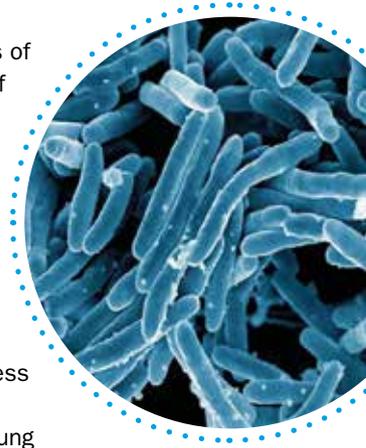
James came up with the idea while working towards his dissertation:

“The business was only formed in November 2014 and it’s been an unbelievable learning curve. Now that we are back in full time study we’ll be balancing increasing our medical knowledge with building the company up. Fortunately, our degree and venture go hand in hand, and the medical school has provided us with fantastic support thus far.”

“Fortunately, our degree and venture go hand in hand, and the medical school has provided us with fantastic support thus far.”

EuroBiotix CIC were the first occupants of the *ABVenture Zone* at the University of Aberdeen - a new incubation space for new start up and spin-out companies. The founders successfully applied and pitched for support from the University of Aberdeen Enterprise Campus.

The duo’s idea has won a number of awards including the Santander Business Pitching competition and third place in the Scottish Institute for Enterprise Young Innovators Challenge. They also competed and came third in the Lifescience and Medtech category in the University Startup World Cup.



[www.eurobiotix.org](http://www.eurobiotix.org)  
[www.abventurezone.com](http://www.abventurezone.com)



### Abesh Thakur and Varun Nair

University of Edinburgh  
alumni and Founders  
of Two Big Ears Ltd

Their flagship product 3Dception  
has brought the team early success.

## Business ideas into reality

Two Big Ears designs immersive and interactive audio applications and tools, with a focus on mobile and emerging technologies. The company was founded in 2013 by Abesh Thakur and Varun Nair, postgraduate students from India, while they were both studying at Edinburgh College of Art. Alongside their studies, Abesh and Varun received encouragement and business advice to get their idea off the ground from *Launch.ed*, the University of Edinburgh's award-winning support service for student entrepreneurs.

Two Big Ears' flagship product 3Dception has brought the team early success. They now claim high profile artists, such as

the Icelandic star Björk, and virtual reality producers Oculus VR, creators of Oculus Rift, among their list of clients.

The *Launch.ed* team worked with Varun and Abesh in developing initial ideas for the business, helping advise on market research, sales and marketing to create a business plan. Abesh, who is now CEO of Two Big Ears, was a 2013 Santander Summer Entrepreneur-in-Residence with *Launch.ed* which facilitated the company's incubation at the University via the Edinburgh Technology Transfer Centre.

Two Big Ears now employs five people and continues to be based in Edinburgh where it is developing and refining additional products and seeking to grow the company.

[www.twobigears.com](http://www.twobigears.com)



**FACT 2:**  
Scots who get training in school on how to start a business are more likely to want to do so. Scots who get training after they leave school on how to start a business are twice as likely to take action to make it happen.<sup>3</sup>

<sup>3</sup>GEM Scotland, 2014. Table 3.6 page 15.



### Maggie Mazoleka

Founder of MaRobert's and graduate of Edinburgh Napier University

## Developing entrepreneurial skills together

“Edinburgh Napier University believed in me and accepted me onto the MSc in Business Management with Entrepreneurship, which I graduated from in 2009. In 2013 I founded MaRobert's, an Edinburgh-based brand specialising in East African sauces. Currently we produce three mouth-watering flavours of sauces – hot, medium and fruity perfect for cooking or dipping.”

“Our sauces are made in Edinburgh, Scotland and based on my home cooking in my native country Tanzania. Our sauces are 100% natural with full certification and nutritional analysis. Our brand brings together two cultures and communities, and our motto encapsulates this union: “Pamoja/Together”. We are the first and only producer of East African sauces in the UK, entering the ethnic cooking sauces market which represents 92% of the cooking sauces market as a whole.”

“I'm very grateful to Edinburgh Napier University for providing and preparing me with the Entrepreneur mind-set. I thank the University for giving the opportunity and preparing me for my journey, and life of being an entrepreneur.”

[www.ma-roberts.com](http://www.ma-roberts.com)

“I wouldn't be where I am today without the support of education from Edinburgh Napier University.”





**Omar Tufayl**

Student at the  
University of Glasgow

Omar has used *Elevate* funding to expand his team to include two developers.

## The next social network

Nom Yap is a location-based social discovery mobile app that allows students on campus to connect with like-minded peers, on or around campus, in a safe and exciting way.

Omar Tufayl, a third-year computing science student at the University of Glasgow, developed the idea as part of a course project with team mate Justinas Bikulcius. Omar spotted a gap in the market for an app that helped people make new connections in the communities around them.

**Omar:** “We believe there’s no better place to meet new and exciting friends than at university, surrounded by thousands of others with different backgrounds, opinions and views, from all over the world. We’re aiming to create a more connected campus by enabling connections and friendships to form outside users’ current social circles”.

During the summer of 2015 Omar and Justinas brought their idea to *Elevate* - an accelerator programme for business start-ups run by SICSA, the Scotland-wide Informatics and Computer Science Alliance. *Elevate*

provided funding, business training, and mentorship from a wide network of entrepreneurs, educators and enterprise support professionals. The programme helped Omar and Justinas to develop the commercial and technical aspects of their idea.

Omar has used *Elevate* funding to expand his team to include two developers and five brand ambassadors. He is using a growing network of Glasgow University academics, entrepreneurial support staff, administrators, university PR staff, and students to generate buzz for his app as he works towards launching it in late 2015.

[nomyap.com](http://nomyap.com) [fb.com/NomYapApp](https://fb.com/NomYapApp)



**FACT 3:**  
Over 11,000 students a year are known to have taken part in their universities' entrepreneurship activities including those run by the Scottish Institute for Enterprise.<sup>4</sup>

<sup>4</sup> Data gathered from Universities Scotland members.



### Agata Jagodzinska & Michael Grant

Graduates of Queen Margaret  
University, Edinburgh

“It is great to be able to turn your  
passion into your career.”

## Entrepreneurial success on cue

RAW Film was established in 2012 by Agata Jagodzinska and Michael Grant, former students of Queen Margaret University, Edinburgh (QMUE). The company specialises in corporate PR films for online marketing and promotion. Clients have included NHS Scotland, East Lothian Council, Mental Welfare Commission and The Royal and Ancient Golf Club. Agata won a Bafta New Talent Award in 2012.

**Michael:** “We first started RAW Film through the Prince’s Trust and then found further business support through QMUE, who asked us to be the first business based in their new Business Innovation Zone. The service provides support, guidance and residence to graduate businesses. We are still based there.

“Being based at the University has allowed us to look for advice from our former film lecturers, who have years of experience working in the corporate market. This has been invaluable to us as they have given us guidance on the editing of some of our films and have in some cases even helped choose what projects we should take on in order to further our business.

“QMUE’s marketing team has done a lot to help us promote our business, which has resulted in us gaining some of our larger contracts. The marketing team promoted Agata’s win at the Scottish Baftas, which brought our business to the attention of Alzheimer Scotland. We subsequently secured a contract to make a series of films for the charity.

“It is great to be able to turn your passion into your career. This does turn you into a workaholic, but it’s not necessarily a bad thing if you love what you do.”



### FACT 4:

There were over 433 active graduate start-ups with a total turnover of £41 million last year. The number of graduate start-ups has increased by 14 per cent over the last three years.<sup>5</sup>

<sup>5</sup> Higher Education Business & Community Interaction Survey, HEFCE, 2013-14.



### Michael Tougher

Graduate of the  
Glasgow School of Art

## Making music child's play

"My name is Michael Tougher and I am director of Spark and Rocket Ltd, a design and invention company.

"Music is wonderful, but it is hard to experience it without a certain level of skill. For young children traditional musical instruments are hard to play and can appear to be not very engaging or creative.

"I have created Dots which revolutionises musical play. The device encompasses a mat and separate buttons called "dots". Each dot when pressed plays a specific note such as A, they can be placed anywhere on the mat and stacked on top of each other to create chords. It enables children to have the freedom to explore, learn, create and play music.

**"GSA were instrumental in encouraging me to apply for and helping me win two very important awards."**

"Having studied product design engineering at the Glasgow School of Art I am equipped with design and engineering skills as well the ability to understand and design for users' needs.



**FACT 5:**  
There has been a 25% increase in self-employed and freelancing graduates over the last three years and a 60% increase in those pursuing professional portfolio careers.<sup>6</sup>

"GSA were instrumental in encouraging me to apply for and helping me win two very important awards: the *Design Innovations in Plastic* and the *Deutsche Bank Creative Enterprise Awards*. The benefits from both these competitions gave me the confidence, training and funding to start my own business. GSA continue to support me by offering me a Designer in Residence role, giving me access to a space, the workshop and utilities as well as advice and support from staff members. For a new business this support is invaluable to me.

"I have benefited greatly from GSA and from being part of the network of product design engineering alumni in particular. Free advice and help from this community has accelerated my business in great ways."

<sup>6</sup> Higher Education Statistics Agency Destination of Leavers of Higher Education.



**Ry Morgan**

Founder of YOMP and graduate of the University of St Andrews

**“I think there’s been a big shift in student perception towards entrepreneurship.”**

## Developing fresh ideas for healthy workplaces

“I launched Yomp immediately upon graduating from University, with my ex-boss as a co-founder.

“Yomp is an employee-engagement platform which improves health & wellbeing in the workplace - increasing productivity, reducing absenteeism and boosting staff satisfaction. Employees can form teams, log exercise and track stats with Yomp software. At the time of writing they have delivered lifetime revenues of over £1m from a total investment to-date of £225,000 — with a £1.1m seed round on the cusp of being closed for international growth.

“I owe a lot to my time at university, especially my varied involvement with the Scottish Institute for Enterprise. I went to their events, attended their week-long Bootcamp in Glasgow, entered their nationwide business plan competitions and became their campus representative too. If it wasn’t for SIE I’m unsure exactly where I’d be today. The thought of a quintessential “graduate scheme” where one can predict their career milestones over the next five years filled me with terror; whereas running a start-up is entirely the opposite.

“I think there has been a big shift in student perception towards entrepreneurship as a viable occupation. Enterprise societies are prolific and have played a role in this transition, alongside bodies such as SIE, TV shows like Dragons’ Den, additions to the curriculum and competitions. Which is awesome. I look at the options available to my younger sister and the difference — in just a matter of years — is vast.”

[yomp.co](http://yomp.co)

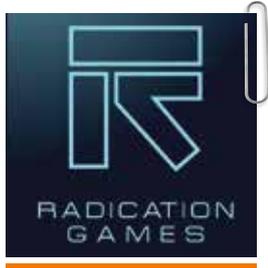


<sup>7</sup> Scottish Institute for Enterprise Annual Review.

<sup>8</sup> Converge Challenge.

### FACT 6:

There has been a surge in applications to enterprise competitions. Applications to the Scottish Institute for Enterprise’s competitions are up 79%.<sup>7</sup> There has been a 68 per cent increase in applications to the Converge Challenge.<sup>8</sup>



### Abertay Student Team

Students at Abertay University

## The battle against tuberculosis

Project Sanitarium is a video game created by Abertay University students, in partnership with University of St Andrews scientists, to raise awareness of tuberculosis and test a mathematical model of the disease. The game sees players battle tuberculosis, treating individual patients across the globe with limited resources.

The Abertay student team, Radication Games, plan to start a business after graduating next year, to develop a larger version of the game for release worldwide. The full game plans to include an in-game economy based on the costs of treatment. This could allow for charitable donations from players paying to buy more game currency.

**John Brengman:** “Studying at Abertay has been an incredible experience, as we are trusted to develop full games from a very early stage and work directly with industry clients. It’s been fantastic to work with world-class scientists to create a completely new type of game, all focused on helping improve the lives of people with tuberculosis through raising awareness of the disease, improving our scientific understanding, and potentially supporting charity fundraising as well.” Tuberculosis kills someone every 20 seconds, according to the TB Alliance. The

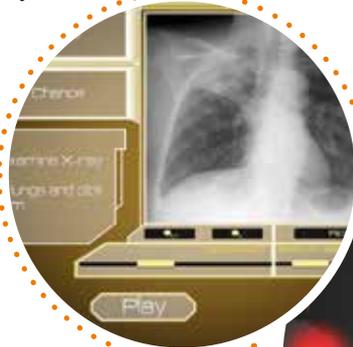
“It’s been fantastic to work with world-class scientists to create a completely new type of game.”

team hope that the game will increase awareness of this preventable tragedy. Project Sanitarium won Gold in the Healthcare category at the 2015 Serious Play Awards and third place in the Microsoft Azure Cloud Gaming Innovation Challenge – a particularly impressive achievement as the only student team taking part.

To play the game prototype, please visit [www.radicationgames.com](http://www.radicationgames.com)

Akos Demuth - Game Designer  
James Warburton - Programmer  
Kirsty Fraser - Programmer  
Adam Harrison - Programmer  
Chris Box - Artist

Do Jin Choi - Artist  
Michael McLean - Visual Communications  
Maz Magzoub - Composer  
James Smith - Composer  
John Brengman - Producer





### Nicola Pitticas

UHatch start-up business at  
Glasgow Caledonian University

Nicola found a gap in the market  
and built this business from scratch.

## Scouting for success in sport

Nicola Pitticas founded Title IX as a UHatch start-up business at Glasgow Caledonian University. Founded in 2014 Title IX provides the next generation of Scottish female athletes with opportunities to develop athletically and academically in America. As a former international hockey athlete, Nicola is a passionate advocate of equality; the name Title IX comes from the US Gender Equity Law, enacted in 1972, to provide female athletes equal access to sporting opportunities in America.

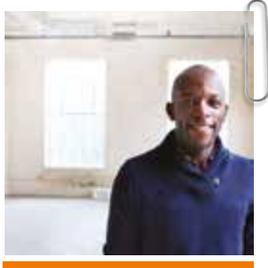
With a keen eye for athletic talent, Nicola scouts and recruits young athletes who aspire to succeed. Offering a bespoke service and liaising with established sporting associations, parents and academic institutions in the US, Nicola has helped to place a host of athletes with prestigious US universities including Boston College, Barry University of Miami and Stanford.

The early business goal was to place five athletes. Nicola achieved more than twice that and is aiming for 20% annual growth in her recruitment targets. In 2015 Nicola held the first Title IX 'US sports preparation camp' to showcase the skills of 14 young athletes to US coaches who had travelled to Scotland. This sports camp was then live streamed to US University partners unable to attend, to give prospective universities a chance to directly assess the athletic competency of each applicant. The results have been exceptional.

Alison Walker, BBC Broadcaster, Sports Journalist:

“What an incredible role model Nicola Pitticas is, not just as an entrepreneur but as a young woman with a real can do attitude. Her ability to find solutions to problems, to build relationships, to see projects through, to pay attention to the finest detail has made her Title 9 business a huge success.”





**Chidozie Obi-Okoye**

Graduate of the University of the West of Scotland

## Graduate hits the right note with app

Chidozie, a former student at University of the West of Scotland now administers an app called All Things Music Productions (AMP) which is a platform for those in the audio industry who need mobile-ready, categorised content.

**Chidozie:** “I came to Scotland in 2012, initially to study a course in Sound Engineering at a Glasgow College and then I discovered the MA Music: Innovation and Entrepreneurship offered at UWS. The title sparked my interest because it offered exactly what I wanted – the chance to build a business in the music industry.”

As well as looking at the creative economy, entrepreneurship and the importance of social media and web technologies, the MA also placed importance on abstract thinking as a means of creativity. Chidozie received support from Enterprise Services at UWS, which nurtures fledgling businesses run by UWS students and graduates. Chidozie also gained a coveted place on the Starter for 6 programme, which supports new businesses in

**“We’ll build websites and apps for companies and people, no matter where they’re based.”**

the creative industries, helping them with business plans and providing mentoring.

UWS is part of Enterprise Campus, which supports graduate entrepreneurs from a range of Scottish universities, and when Chidozie secured an investment of £30,000 to grow his business, Enterprise Campus provided financial and investment advisers to help him to shape the investment terms.

Now, Chidozie is working not just on AMP but on a larger-scale e-solutions business called Fingersfingers, which produces mobile apps and custom-built websites.

“We’ll build websites and apps for companies and people, no matter where they’re based,” says Chidozie, “but I really want to develop the African webspace. I want to build designs and apps that are tailored for the African market, right down to the fonts and functionality. As a company we have so many innovative ideas to suit the African online space, inspired by what we have here in Europe. There are 170 million people in Nigeria alone – that’s a lot of opportunities!”



### Claire McKenzie and Scott Gilmour

Graduates of the Royal Conservatoire of Scotland

## Theatre partnership making a big noise

*Noisemaker* is the multi award-winning partnership of actor/writer Scott Gilmour and composer Claire McKenzie. *Noisemaker* creates, develops and produces original innovative theatre, designed to engage new audiences and challenge expectations of what theatre should be.

Claire and Scott studied at the Royal Conservatoire of Scotland. Their partnership started when RCS selected them to write for a collaboration between the RCS and The Arches in Glasgow. Their first show, *Freakshow*, was met with critical success and transferred to the Roundhouse in London where it won the Scottish Daily Mail Drama Award. This supported the piece being presented at the Edinburgh Festival Fringe.

**Scott:** “Studying at the Royal Conservatoire of Scotland encouraged us to push boundaries and discover what kind of artists we could be.

“Our relationship with RCS still informs and nurtures our work, alongside many other emerging artists and practitioners.”

Many of the Conservatoire’s graduates enter the world of work as self-employed performers, artists, directors, producers and

“Studying at the Royal Conservatoire of Scotland encouraged us to push boundaries and discover what kind of artists we could be.”

teachers, amongst others, and often have a ‘portfolio career’ and need to be entrepreneurial to survive in a competitive industry. Whilst at RCS they are supported to prepare to be young arts entrepreneurs; offered opportunities to perform and showcase work, create new work and to connect and work with professional arts companies and professional artists. Since completing their studies, RCS has continued to support Scott and Claire to develop their business in Scotland and internationally. RCS has commissioned them to write a further two shows: *Forest Boy* and *The Girl Who*, as platform pieces for the MA Musical Theatre programme. Both shows premiered to critical acclaim at the Edinburgh Festival Fringe.

*Noisemaker* is now working on a new version of *Forest Boy* to be premiered internationally in Berlin and has been commissioned by the Royal Lyceum Theatre, Edinburgh to write a new score for their Christmas show, *The Lion, the Witch and the Wardrobe*, and by Dundee Rep to write *Little Red and the Wolf*, a new family musical opening in spring 2016.





### John Prince

Graduate of Robert Gordon University, Director and Editor of MICA Magazine

“His input really changed the face of MICA.”

## Creative talent changes the face of magazine

With a firm commitment to supporting the growth of the SME sector, Robert Gordon University's Talent Exchange initiative connects local businesses with the skills of undergraduate and postgraduate students across all disciplines.

John Prince, Director and Editor of MICA Magazine, is a graduate of Robert Gordon University. As an entrepreneur he is an advocate of the Talent Exchange initiative based on his first-hand experience of its benefits.

**John Prince:** “Over the past 12 months the business side of MICA has grown drastically and we were in a position to put in place our ethos by supporting highly talented, aspiring locally-based creatives to have an influential role within MICA. This ethos stems from when I graduated with the limited opportunities for local creatives in Aberdeen. I instantly thought of providing these opportunities to students as this will provide them with real hands-on experience and a platform to full time employment.

“I approached Talent Exchange at The Robert Gordon University and they put me in touch with Grant Dickie, who's studying at the Gray's School of Art.

**FACT 7:**  
Projects that showcase students' intra-preneurship skills are having a real impact. Around £5 million of benefit was delivered to students and third-sector organisations through the Third Sector Internships Scotland.<sup>9</sup>

“Grant has worked with us on updating our media pack and on the last two publications. We provided him with license to input his creativity. His input really changed the face of MICA in terms of design and it's all down to his hard work and dedication. Grant is working with us on future publications and we hope our working relationship with him grows. Hopefully this will provide Grant a solid CV for the future which will enable him to secure employment.”

**Grant Dickie:** “When the opportunity to work with the MICA team was put forward I was extremely interested. It gave me good insights into working with a client, finding a way to couple their vision of what their brand and product should be and my vision of where it could go. This experience of client contact, strict deadlines and shorter working times is something I would not have experienced if I had only pursued personal projects. It was a great experience working alongside John as he was very open to creating a newer designed look for the magazine. I am definitely looking forward to working more with the MICA team on future issues and where we can take the magazine next.”

[www.micamagazine.com](http://www.micamagazine.com) [www.rgu.ac.uk/talentexchange](http://www.rgu.ac.uk/talentexchange)

<sup>9</sup> TSIS financial impact: Internships that make a difference, Third Sector Internships Scotland.



### Susie Allison

Graduate of the  
Open University in Scotland

## Enterprising initiative for patient after care in rural areas

Hospital patients in remote areas of Dumfries and Galloway are able to return home sooner, thanks to an innovative idea that Susie Allison put into place whilst on placement for her degree in social work with The Open University (OU).

Susie, aged 43, was on placement with Dumfries & Galloway Council's Adult Care Social Work Services in Stranraer, when she noticed that care providers were refusing to take on work in remote rural areas. This was delaying patients returning home from hospital, as the patients could not receive the necessary after care.

Susie applied theory to practice, by mapping out the distance between the care services and the care users, and developing a week-long schedule to make visits more practical and financially viable. This meant that patients could be discharged from hospital sooner, because suitable after care was available.

**Susie:** "The OU course helped me to put theory into practice. I had a great tutor, who helped me see the links between theory and practice, which helped my idea. The course helped to open my mind to look at different angles and different situations, and to apply that approach when on placement."

"The course helped to open my mind to look at different angles."

Dumfries & Galloway Council were so impressed with the positive impact of Susie's idea, they nominated her for a Scottish Student Social Worker of the Year Award.

**Ann Dodds, Acting Senior Social Worker at the Council said:**

"The initiative Susie set up is on-going. It proved to be of great benefit to this area, because Susie made it economical for care agencies to go to remote areas, which allows patients a speedier return from hospital."

Susie won the award for demonstrating enthusiasm for learning, commitment to care service users, and honesty in reflecting the emotional impact of the work, which is an example to other students and social workers.

The judges described the impact of Susie's initiative as "astounding".





**Ryan Carenduff**

Programme Manager, Sports Innovation Challenge, University of Stirling

**“We encourage students and recent graduates to challenge existing ideas.”**

## Challenged to Create

Based at the University of Stirling and delivered through Stirling University Innovation Park, the Sports Innovation Challenge gives 600,000 eligible students and recent graduates from across Scotland the chance to develop ideas for new sports products, services and technologies into real, pioneering businesses. The Challenge provides skills training and support, culminating in a business competition with financial, business incubator and further mentoring support going to the winners.

The Challenge aims to fill a distinctive gap in the Scottish enterprise support ecosystem while enhancing sports business creation.

Through its interactive workshop series and one-to-one development sessions with Programme Manager Ryan Carenduff, the Challenge offers participants the chance to learn valuable new employment and business skills and step out of their comfort zone.

**Ryan:** “Changing young people’s attitudes towards innovation is at the very core of the Challenge and is how we’re creating new entrepreneurs across Scotland. From initial lectures,

right through to the final pitching stage, we encourage students and recent graduates to challenge existing ideas and think differently about the world around them. Workshop participants also receive a ‘Practical Skills Certificate’ which gives them a tangible credit to put on their CV. Regardless of academic or sporting background, the Challenge at the University of Stirling gives individuals the chance to learn about business and boost employability.”

Launched in 2014, with funding from the Intellectual Property Office Fast Forward Competition, the Challenge supports students with these sports business ideas through a range of completely free workshops to simultaneously develop business ideas and hone employability skills.

Last year, over 250 students and recent graduates from 11 universities engaged with the competition to support very early stage business creation for entrepreneurs as well as enterprise skills development for intrapreneurs.

[www.sportsinnovationchallenge.org.uk](http://www.sportsinnovationchallenge.org.uk)





### Laura Barwick

Graduate of  
Scotland's Rural College (SRUC)

**"I still refer back to the grounding I gained while studying at SRUC – the people and the learning processes set me up fantastically."**

## Excellent grounding for career in agriculture

"As Agricultural Livestock Liaison Manager for Scotbeef Ltd my career isn't the typical choice for a female graduate however I love it and I like to challenge stereotypes!

"Agriculture is in my blood and my studies provided me with the knowledge, channels and opportunities to harness my passions and interests while developing my skillset and advancing my career aspirations. I particularly enjoyed the practical elements of my degree in Rural Business Management especially on placements as a consultant in real life rural diversification projects. These opportunities to innovate and suggest improvements to businesses helped me realise where I thrived and ultimately led me to choose the career I'm following.

"I joined Scotbeef in 2012 initially as an Agricultural Liaison Coordinator before being promoted to my current position. Some of my work can be high powered but Scotbeef trust my abilities, and have seen what I'm capable of, so I harness that and give it all I can in every opportunity.

"My job involves liaising between the retailer, Scotbeef and the grass-roots producers on Codes of Practices, legislation, working to ensure a sustainable

supply chain and research & development. My current role also includes running a number of research trials and initiatives.

"I still refer back to the grounding I gained while studying at SRUC – the people and the learning processes set me up fantastically. My attitude and approach is my driving force and that was developed while studying at SRUC and is being pushed and developed even further now with Scotbeef. I feel very fortunate indeed."





**Rachael Bews**  
Digital & Database  
Marketing Executive,  
Hamilton & Inches

## UHI looks to develop an entrepreneurial mind set and entrepreneurial behaviour.

### An intrapreneurial jewel in the crown

Rachael Bews graduated with First Class Honours in Business and Management with Marketing from the University of the Highlands and Islands in September 2014. UHI looks to develop an entrepreneurial mind set and entrepreneurial behaviour which it hopes will build constantly and enrich its connections to communities and employers, facilitating personal and institutional growth.

Rachael demonstrated a flair for enterprise and innovation and spent time working as a student intern with the Scottish Institute for Enterprise and CREATE, the Highlands and Islands Centre for Enterprise and Innovation.

Upon completion of her studies Rachael set out to understand the local business community in Inverness.

Identifying unfulfilled gaps in their marketing and communications needs, she set up as a sole trader, offering marketing, communications and editorial services for companies operating in Inverness, Edinburgh and Glasgow.

After a year of working for herself, Rachael was keen to

get stuck into a single brand and learn from others with experience in the marketing industry. An opportunity arose with Edinburgh-based jewellers and silversmiths Hamilton & Inches, to work as the company's Digital and Database Marketing Executive.

**Rachael:** "The beautiful world of high-end retail was completely new to me, however it was exactly the new venture I had been looking for. It was also fortuitous that Hamilton & Inches is so committed to investing in workplace opportunities for young people. Throughout its 150 year history the company has been devoted to ensuring that the valuable knowledge and skills of its staff are transferred through the generations. It has recently formalised this endeavour with the H&I Academy, which takes on apprentice craftsmen and women, and encourages the continuous professional development of all its staff."

Recently Rachael was responsible for the delivery of Hamilton & Inches' 'Making of a Ring' campaign – a romantic story of ring creation in the Hamilton & Inches workshops. The organisation of film, photography and an integrated visual campaign on this scale was a new challenge to Rachael, however with the support of her team it was a success.





### Anacail Team

University of Glasgow's  
School of Physics  
and Astronomy

*"We were particularly attracted to Anacail because of its technology, market potential and team."*

## Taking staff innovation to market

Anacail Limited is a venture-capital backed spin-out of the University of Glasgow's School of Physics and Astronomy specialising in the creation and handling of ozone – an activated form of oxygen – which has sterilisation properties for both food and medical instruments.

Its key technology allows the generation of ozone inside sealed packages, without damaging or opening the package. The ozone is generated from oxygen inside the package and is a potent germicide; ozone can destroy bacteria, spores, viruses and biofilms. This approach offers rapid, safe and chemical-free sterilisation.

Anacail has closed a £2 million "Series A" equity investment. The investment consortium included new investor Sussex Place Ventures, existing investors IP Group plc and the Scottish Investment Bank (SIB) as well as a small number of private individuals.

Dr Hugh Potts is the founder and Chief Scientist at Anacail. Formerly a post-doctoral researcher at Glasgow, Hugh has 20 years' experience in both plasma experimentation and modelling and was closely involved in the spinout of the company from

University of Glasgow in 2011. In the last six months Anacail has built up its Board with the appointment of Gareth Voyle as Chairman and two specialist advisors, Liz Kynoch and Jonathon Lintott.

Richard Gourlay, Managing Partner at Sussex Place Ventures, commented: "We were particularly attracted to Anacail because of its technology, market potential and team. They have made significant progress since the seed funding stage and we were keen to be part of this funding round, a major milestone for the company. We believe Anacail has a very exciting future."





### **Saccade Diagnostics Team**

University of Aberdeen

## **Applying research to create new products which benefit those in need**

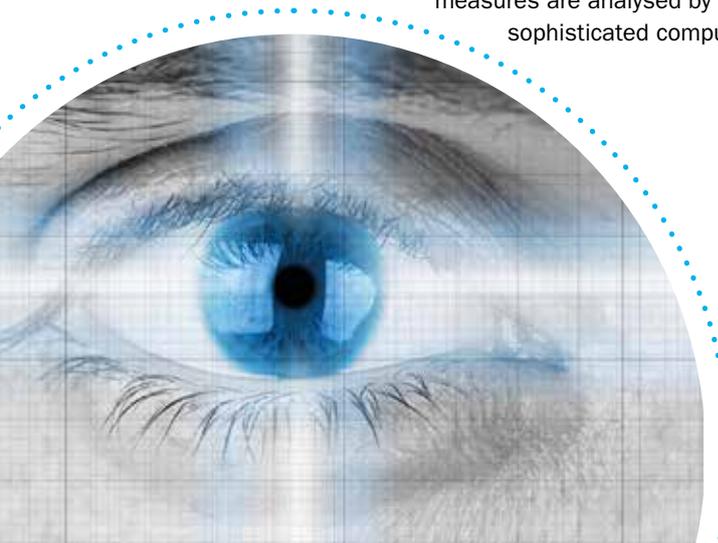
Saccade Diagnostics is an award-winning spin out company from the University of Aberdeen developing tests to help with the diagnosis of psychiatric disorders. At present the diagnosis of psychiatric disorders such as schizophrenia, bipolar disorder and recurrent depression are based solely on patient history, symptoms and observed behaviour which can be unreliable.

New findings from Dr Philip Benson and Professor David St Clair show that a range of tests based on recordings of simple eye movements is extremely effective at diagnosing a range of major psychiatric disorders. Eye movement performance measures are analysed by sophisticated computer

algorithms to generate different patterns. The eye movement technology performs better at distinguishing different psychiatric disorders than any current blood, radiology or gene-based tests of which they are aware.

Earlier this year, Saccade Diagnostics received a £1.4m Health Innovation Challenge Fund award from the Department of Health and the Wellcome Trust to carry out research in collaboration with teams from the Universities of Aberdeen and Edinburgh. The new funding will allow the team to replicate their exciting findings on large new sets of patients with schizophrenia, bipolar disorder and recurrent depression and to test patients with other psychiatric disorders.

In 2013, Saccade Diagnostics led by CEO Madhu Nair won first prize in the Converge Challenge Business Competition scooping a prize of £60,000 of cash and in kind support. It also won Best Open Innovation Business in 2013 and was nominated for Scottish Enterprise Life Sciences Innovation Award 2014. It recently received a SMART Feasibility award from Scottish Enterprise to help commercialise the eye movement test for use in psychiatry.





### **Dr Lysimachos Zografos**

Founder of Parkure and graduate of the University of Edinburgh

## **Developing ideas to unlock new treatments**

Dr Lysimachos Zografos is the founder and Chief Executive Officer of Parkure Ltd, a company with an ambition to revolutionise the treatment of Parkinson's. Lysimachos started to develop Parkure in 2012 whilst a post-doctoral researcher at the University of Edinburgh. The company uses genetically engineered fruit flies that develop the disease to discover new drugs. Parkure has adopted a drug repurposing approach which tests drugs that have already been certified as safe for human use. Their system is cheap, fast and ready to go.

Lysimachos has been working with Edinburgh Research and Innovation at the University to develop the commercial aspects of his idea. The global market for drugs that treat the symptoms of Parkinson's is currently \$2.7 billion. Parkure's focus of a cure for the disease would open up an entirely new market. In 2014 Parkure opted to use equity crowdfunding to raise finance because traditional sources of funding are often reluctant to back drug discovery ventures at their early stages.

**Dr Lysimachos Zografos:** "Edinburgh Research and Innovation have provided an immense amount of support. They provided the mentoring and "crash course-style" training needed by someone with a science background in order to deal with the world of business. The soft skills, mentoring, access to networks and practical help I received was key to obtaining the momentum needed to spin-out.

<sup>10</sup> Praxis Unico Spinouts UK Annual Survey 2013.



**FACT 8:**  
Scotland has the biggest share of UK spin-out companies at 28 per cent compared to London's 18 per cent.<sup>10</sup>

**Parkure**  
Research and Innovation

"Crowdfunding can provide an excellent way to bridge the funding gap for early stage companies. We were the first who managed to bootstrap a biotechnology company using this platform and this was partly made possible by the invaluable help, guidance and mentoring we received from the Centre for Integrative Physiology and Edinburgh Research and Innovation's company formation team. We have a tough challenge ahead but now we are even more driven, committed and energised because all of those who supported us."

Crowdfunding on ShareIn raised more than £75,000 and Parkure was awarded a SMART Scotland grant from the Scottish Government in December 2014 to match the private investment.

[www.parkure.co.uk](http://www.parkure.co.uk)

[www.research-innovation.ed.ac.uk](http://www.research-innovation.ed.ac.uk)



**Dr Dawn Maskell  
& Julio Traub**

Heriot-Watt University

*“We turned our idea into a business, learning many valuable lessons about commercialisation along the way.”*

## Innovating across Scotland’s key industries

A new company, soon to spin-out of Heriot-Watt University, is turning the by-products from whisky distilling into salmon feed, creating a sustainable, locally produced food source for fish farming and linking two of Scotland’s most high-profile industries. Currently the salmon industry imports most of its fish feed.

Horizon Proteins started life as a research project at the University’s Life Sciences and Chemical Engineering departments. The team, led by Dr Nik Willoughby and Alan Harper and co-founders, Dr Dawn Maskell, Dr Jane White and Julio Traub has been awarded up to £575,000 from Scottish

Enterprise as part of the High Growth Spin-out Programme. This successful bid follows support from the Converge Challenge team and intensive support from Heriot-Watt’s commercial team.

As Julio Traub, Horizon Proteins Technical Manager explains: “There is no doubt that the award from Scottish Enterprise was thanks to our participation in Converge Challenge and expertise of the University commercial team. We turned our idea into a business, learning many valuable lessons about commercialisation along the way and had the opportunity to meet a range of potential investors, customers and collaborators, who helped us to develop a viable business plan for our company.”

At the end of the High Growth Spin-Out Programme Horizon Proteins will be ready to go into production on a prototype at a Scottish distillery. The company’s ambitions are to have net sales of at least £20 million within five years.

[www.horizonproteins.com](http://www.horizonproteins.com)





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