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THE UNIVERSITY OF SURREY COMMUNITY WOULD LIKE TO SAY A HUGE AND HEARTFELT "THANK YOU!" TO ALL NHS STAFF AND KEY WORKERS FOR THEIR INCREDIBLE CONTRIBUTION DURING THE COVID-19 PANDEMIC.



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Double measure of royalty for Surrey



Page 9

Academics work on 100+ Covid-19 projects



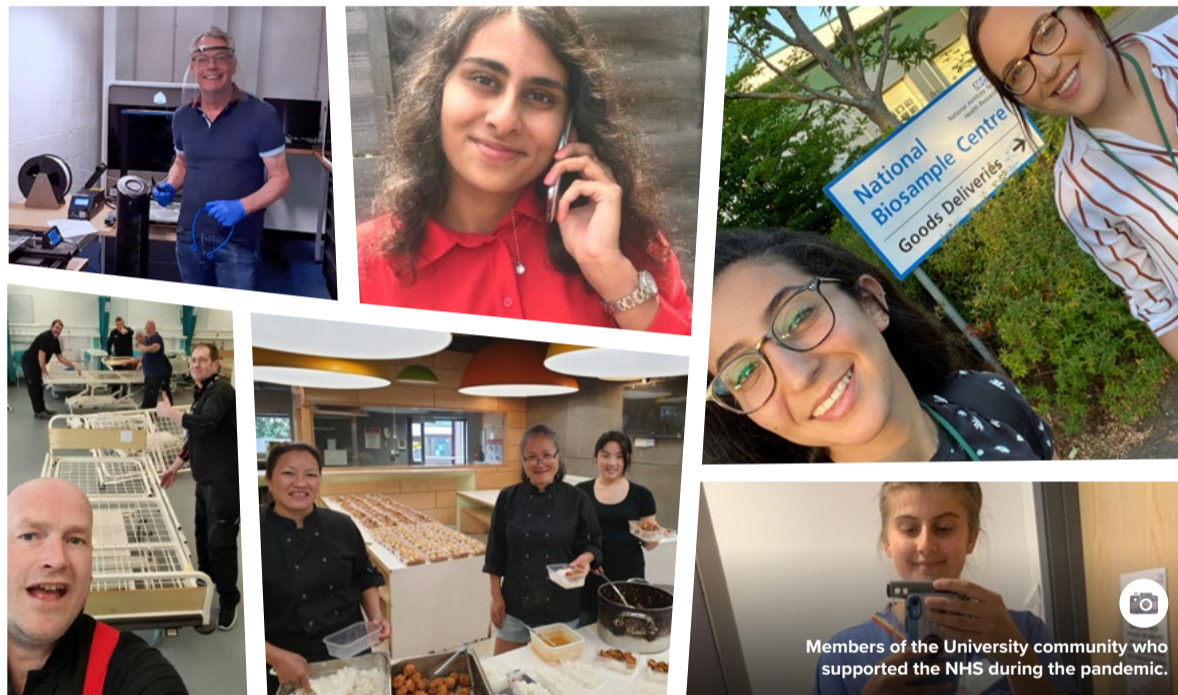
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Covid-19: Meet our student community champions



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A day in the life of a student nurse



Members of the University community who supported the NHS during the pandemic.

## University community reflects on contribution during Covid-19 pandemic

Staff and students from the University of Surrey have joined the nationwide fight against Covid-19 by supporting the NHS and contributing to globally-significant research.

More than 250 of the University's final-year nursing, midwifery and other healthcare students started work in the NHS during the pandemic, alongside members of staff and fellow students who volunteered in hospitals and student paramedics who took on extra shifts.

Surrey's PhD trainees provided support to patients with neuropsychological problems and also established a helpline to provide mental health support to healthcare practitioners.

Academic staff from the University's School of Health Sciences trained former NHS staff to prepare them for treating patients with Covid-19, as well as upskilling community-based healthcare professionals to help reduce hospital admissions.

Professor Melaine Coward, Interim Executive Dean of the Faculty of Health and Medical Sciences, said: "We are incredibly grateful to all our students and staff who responded to the country's call to action and signed up to support the NHS. They have demonstrated the character, knowledge and skill to care for patients during these unprecedented times and we are extremely proud of them."

With students, staff and graduates working to tackle the pandemic on the front line, the University was able to play a part in protecting them and their colleagues by donating more than 120,000 items of personal protective equipment (PPE). This was made possible thanks to the generosity of former students and international partners. Recipients included the Royal Surrey County Hospital, local GP surgeries, hospices and care homes.

The University was also pleased to open its clinical skills and simulation wards to NHS workers, together with computer laboratories, office space and facilities at our Veterinary Pathology Centre. Local hospital workers were able to take advantage of 100 campus bedrooms to support their shiftwork at the nearby Royal Surrey County Hospital.

Academics from across all three of the University's faculties have focused on more than 100 Covid-19 research projects since the outbreak, furthering the world's knowledge of the disease to limit its spread, support the diagnosis and treatment of patients and communities, and search for a vaccine.

## Students return to Guildford as academic year begins

The University will welcome new and existing students back to campus from 21 September for the 2020-21 academic year.

The University will move to a blend of on-campus and online learning, known as 'hybrid education', to provide a supportive, diverse and vibrant learning experience while staying safe against the backdrop of Covid-19.

The campus learning facilities and laboratories will be open, but with added safety measures in place.

The University's support services will help students with matters such as finance, healthcare, wellbeing and faith.

To find out more about our plans for our students' safe return, visit: [surrey.ac.uk/coronavirus](https://surrey.ac.uk/coronavirus)



Credit: Dean Whiting



## Welcome from our guest editor Professor Max Lu, President and Vice-Chancellor of the University of Surrey

The Covid-19 pandemic and the subsequent events of the last six months have been extraordinary, creating new challenges but also bringing out the best in our community. On behalf of the University, may I extend our sincere gratitude to each and every key worker and volunteer who kept the borough running during this challenging period. This includes many of our own staff and students, some of whom you will read about in the pages of this edition.

It was with immense pride that we watched more than 250 of our healthcare students start work in the NHS during the pandemic, many in local hospitals. We are delighted that undergraduates from our School of Health Sciences are now able to hone their clinical skills in cutting-edge simulation wards in our new Kate Granger building, kindly opened by HRH The Countess of Wessex in January (page 3). Although we didn't know it at the time, this would prove to be very timely, as the University was able to open its doors to NHS staff during the pandemic, supporting them to help others.

One consequence of the pandemic has been the global recognition of the importance of university research to tackle the disease. On page 9, you will read about important Covid-19 research projects being undertaken by our academics. These are just a small selection of more than 100 Covid-19 research projects currently taking place at Surrey, with around 90 additional funding proposals in process. Watch this space!

While the virus has dominated the news agenda in recent months, other urgent challenges haven't gone away. On pages 6 and 7, you will read about Surrey research projects that are tackling issues such as cancer, air pollution and end of life care. It is certainly timely to read that our School of Veterinary Medicine continues its collaboration with the One Health European Joint Programme to carry out pioneering research recognising that human health is closely linked to the health of animals and the environment. Since it was opened by HM The Queen in 2015, the School has gone from strength to strength, and we were honoured to welcome HRH The Princess Royal in February to open our new Large Animal Clinical Skills Centre (page 3).

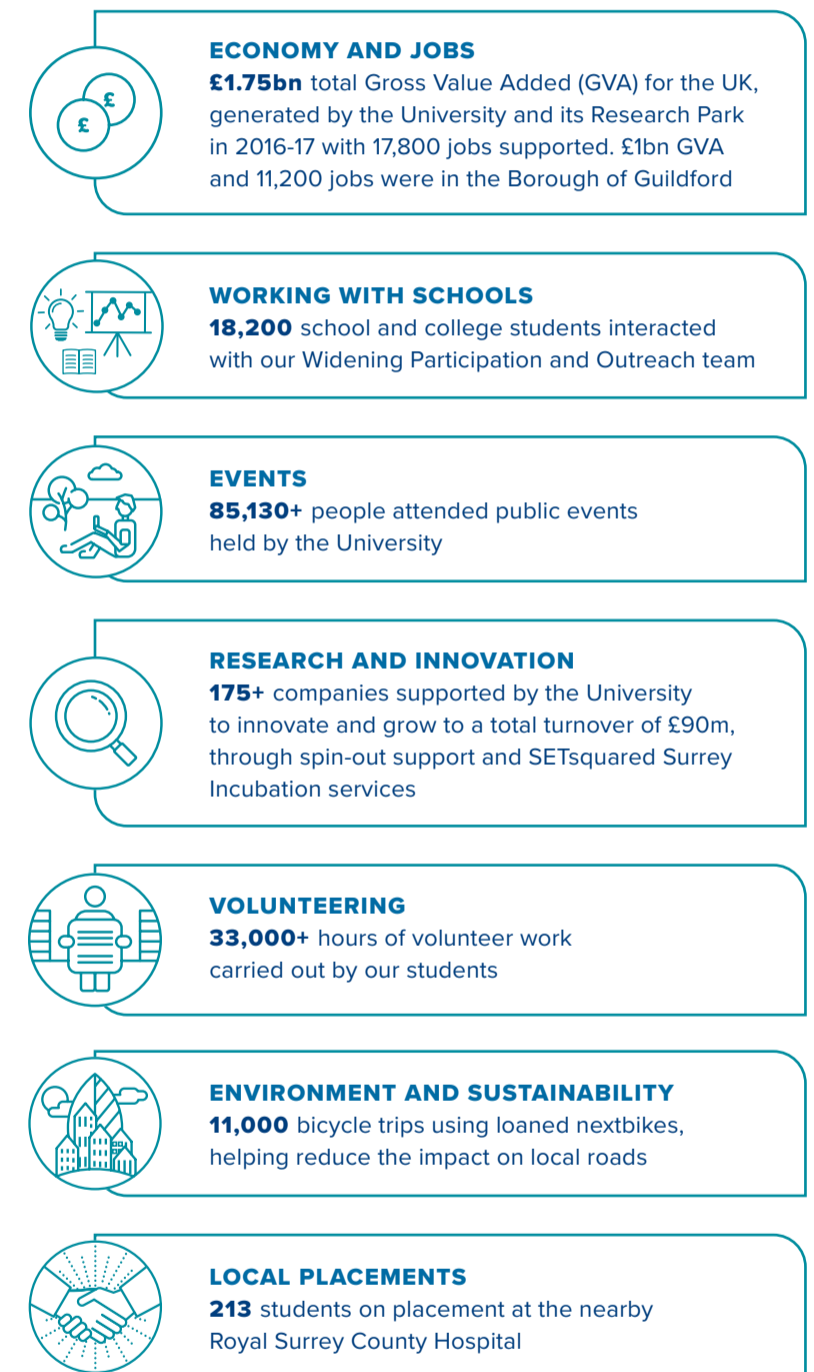
I hope there will be many opportunities this year for you to engage with the University community on your doorstep. Whether that's through visiting our Sports Park, which is in its 10th anniversary year (page 16), participating in our Guildford Residents' Survey (opposite) or perhaps even meeting an incredible student midwife like Maddy (page 13). If in the meantime, you would like to discuss any matters related to the University community, our Public Engagement team are happy to help – please email: [publicengagement@surrey.ac.uk](mailto:publicengagement@surrey.ac.uk)

For regular updates on the University's work in the community, visit: [surrey.ac.uk/community](http://surrey.ac.uk/community) or follow [@UniOfSurreyCPE](https://twitter.com/UniOfSurreyCPE) on Twitter.

## Anchor institution makes a splash

'Anchor institutions' are large, typically not-for-profit organisations whose long-term sustainability is tied to the wellbeing of the populations they serve. Examples include hospitals, councils and universities.

We're incredibly proud to be one of Guildford's anchor institutions, and we're committed to measuring, adapting and growing our contribution to the local community and to society as a whole. Here we highlight some statistics from our latest report: *Measuring Up, Impact and Contribution, 2018 – 2019*. To read our full report, please visit: [surrey.ac.uk/community](http://surrey.ac.uk/community)



### TAKE PART IN OUR ANNUAL GUILDFORD RESIDENTS' SURVEY

Every year, the University asks Guildford residents to complete a short survey to help us understand how you view the university on your doorstep. Your feedback will help the University to strengthen its links within the community and identify the steps we could be taking to share more about our organisation with you.

Participants stand a chance of winning one of three £100 cash prizes. Visit [surrey.ac.uk/guilfordsurvey](http://surrey.ac.uk/guilfordsurvey) before 5pm on Sunday 20 September 2020.

## Surrey welcomes royal visitors to campus to open new learning facilities

The University welcomed Their Royal Highnesses The Princess Royal and The Countess of Wessex to campus earlier this year to officially open the Large Animal Clinical Skills Centre at the School of Veterinary Medicine and the Kate Granger Building at the School of Health Sciences.

The new Large Animal Clinical Skills Centre, home to state-of-the-art teaching aids and simulation models, provides students with the opportunity to refine their practical skills before treating real animals.

As part of the opening, HRH The Princess Royal toured the School of Veterinary Medicine, meeting with staff and students to learn more about their work. She also observed a post-mortem examination of a horse – a vital service that helps to quickly identify potential outbreaks of disease and illness in animals in the region.

Professor Chris Proudman, Head of the School of Veterinary Medicine, said: "We were honoured to welcome HRH The Princess Royal to the Vet School, and very grateful that Her Royal Highness officially opened the Large Animal Clinical Skills Facilities. Preparing students for life as a vet is our number one priority; the hands-on experience they will get through the use of this facility is invaluable and enables them to give the best possible care to all animals."

"We are also very grateful to the Longhurst family, without whom these teaching resources would not have been possible – their generosity is helping us to teach the vets of the future."

As part of another official opening at the University, HRH The Countess of Wessex, toured a new state-of-the-art facility at the Health Sciences Institute, meeting student nurses and midwives in a purpose-built replica hospital where they refine their clinical care skills. The building is named after Kate Granger MBE, an NHS doctor who spearheaded the #HelloMyNameIs campaign to encourage healthcare staff to establish personal connections with patients.

Professor Melaine Coward, Interim Executive Dean of the Faculty of Health and Medical Sciences, said: "It was a great privilege to welcome HRH The Countess of Wessex to campus and we were delighted that Her Royal Highness officially opened our Kate Granger Building. The story of Kate and her campaign for more personal and compassionate treatment within the NHS will undoubtedly inspire our students to deliver the best possible care to patients and their families."



## Guildford GP honoured

The Guildford Roll of Honour award has been presented to Surrey academic, Professor Simon de Lusignan.

A joint venture between the University and Guildford Borough Council, the award celebrates individuals who have made exceptional contributions to the economic wealth, social wellbeing or artistic culture of Guildford and the surrounding region.

Professor de Lusignan is a Guildford GP who has worked at the cutting edge of general practice in Guildford for more than 30 years. Alongside patient care he has conducted extensive research which has helped protect the country against infectious diseases such as influenza, shaped the way British GPs work and boosted the quality of care for patients.

Professor de Lusignan said: "It is a tremendous honour to be recognised for a local role that has meant a great deal to me."



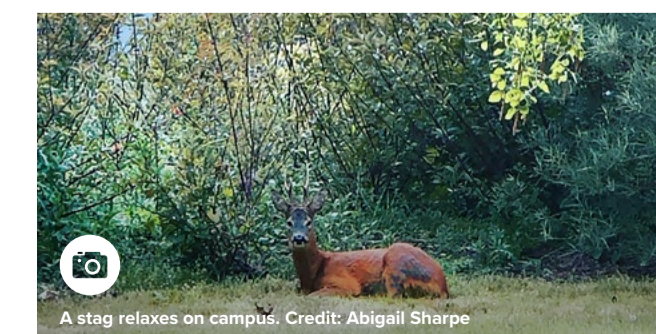
## Campus visitors put the stag into Stag Hill

The stag featured in the University's coat of arms symbolises the medieval royal hunting park on which Surrey's Stag Hill campus was developed.

When the University campus was at its quietest during the Covid-19 lockdown period, some of these familiar friends had the rare opportunity to return and were spotted relaxing on the Stag Hill site.

The University grounds are also home to some prickly pals, having recently been bronze-accredited by the Hedgehog Friendly Campus scheme, a national campaign that aims to revive hedgehog populations across the UK by improving habitats and raising awareness.

The award is recognition of the hard work undertaken by staff and student volunteers from across the University.



## A spectacular Surrey showcase

On 8 July, the University of Surrey's first ever virtual Annual Review event was broadcast live from our television studios thanks to a talented, student-led production team.

The Annual Review provides us with the opportunity to celebrate the University's accomplishments during the past year, and to thank those that have made a positive impact on a local, national and global scale.

The collaborative event brought together staff and students from across the University to create an extraordinary showcase. This included an uplifting highlights film, presentations from academics to discuss some of the inspiring research that has been taking place, along with the outstanding learning our students have experienced and the discoveries that Surrey has been proudly involved with during this unprecedented time.

If you would like to watch the recorded event, or download our latest brochure to find out more about the wonderful things that happen at the University, please visit: [surrey.ac.uk/about/strategy/annual-review](http://surrey.ac.uk/about/strategy/annual-review)

## Stellar start for Surrey's partnership with Winchester Science Centre



Caption: (Left to right) Ben Ward, Chief Executive, Winchester Science Centre, Max Lu, President and Vice-Chancellor of the University of Surrey and Justin Read, Head of Physics, University of Surrey. Credit: Paul Stead

The University of Surrey and Winchester Science Centre & Planetarium have partnered up to work on public engagement projects, community and school initiatives, and much more.

A ceremony to mark the partnership took place earlier this year at Winchester Science Centre, where Professor Max Lu, President and Vice-Chancellor of the University of Surrey, and Ben Ward, Chief Executive of Winchester Science Centre, signed a Memorandum of Understanding (MOU).

The MOU signals both organisations' desire to collaborate on a wide range of engagement and outreach initiatives.

Professor Max Lu said: "It is a great privilege to be partnering with such an inspirational organisation as Winchester Science Centre. The signing of the MOU marked the beginning of a strong partnership between two communities that share a passion for learning and for the promotion of science and technology."

## Living in Southway? Talk to us!

The University has been working with residents, local groups and ward councillors to understand the social, environmental and health challenges facing residents living in an area of North West Guildford.

Forming part of the North West Guildford 2030 research initiative, the project is focused on the residential area around Southway and aims to understand the health and wellbeing impacts of a lack of high-quality green space, poor maintenance, waste management issues and air pollution.

The University is inviting residents to attend co-creation workshops, where they will be encouraged to share their ideas for creating and maintaining a clean, green and sustainable, local environment.

Ross Kelway, Public Engagement Manager at the University of Surrey, said: "We hope that once this study is completed, community-led, practical and innovative action can be taken to tackle these issues and improve the area for local residents of all ages."

Interested in taking part? For further information, please email: [publicengagement@surrey.ac.uk](mailto:publicengagement@surrey.ac.uk)



Cheers! Raising a glass to fellow graduates

## A virtual 'hats off' to graduating students

Covid-19 may have put a halt to large physical gatherings, but staff and students from across the University's three faculties still came together to celebrate student successes with virtual graduations.

For one department, the new graduates were treated to a guest talk from IT Consultant Julian Holmes, now the Transformation Principal at leading global software consultancy ThoughtWorks, who was also part of the first cohort of students on Surrey's Computing Information Technology course in 1993.

Helen Treharne, the current Head of the Department of Computer Science, also offered students her best wishes, commenting: "Covid-19 has impacted everyone's lives, but we're looking forward to a more hopeful tomorrow."



Steve Bowers, Mechanical Engineering Workshop Technical Manager, and his colleagues created 9,000 visors and frames for healthcare workers. Credit: Tommy Chamberlain

## Putting the Uni in community

The University has been celebrating members of its community who worked hard to help others during the Covid-19 pandemic.

To help protect healthcare workers, staff from the University's mechanical engineering workshop manufactured 9,000 visors and frames, while marketing manager Katy Beaumont and large animal technician Anna Ware played their part by creating medical scrubs and face mask extenders.

Healthcare volunteers included University fleet coordinator David Osbourne and cyber operations

manager Hannah Adlington, who used their St John Ambulance training to volunteer in local A&E departments.

Young Dixon, owner of campus eatery Young's Kitchen, donated more than 800 takeaway meals to local hospital staff, while Dr Maureen Galea from the Department of Music and Sound Recording produced online classical music performances for schoolchildren.

For more stories, visit: [surrey.ac.uk/community](https://surrey.ac.uk/community) or see [#SurreyCovidChampions](https://twitter.com/SurreyCovidChampions) on Twitter. To read about Surrey's student volunteers, turn to page 11.

## A global community with a local role

At the University of Surrey we're passionate about making a positive contribution to society. The #OurSurreyPeople campaign celebrates members of our community who are making a positive impact here in the borough and beyond.

With more than 16,000 students and around 3,000 staff, Surrey is proud to have a global community. But that doesn't dampen our dedication to making a significant, positive impact locally.

Your University takes a look at members of our community who are involved in local activities, from research and volunteering to education and sustainability.

To learn more about #OurSurreyPeople, please visit: [surrey.ac.uk/community](https://surrey.ac.uk/community)



### Professor Richard Murphy

Professor of Life Cycle Assessment and Director of the Centre for Environment and Sustainability

This year, Richard has supported the Surrey Climate Commission, taking a lead on climate action. Richard's research is helping us understand climate change and sustainability right here in Surrey.



### Hannah Trott

Widening Participation and Outreach Coordinator (GEP), Kings College Guildford

Hannah is working hard at Kings College Guildford, raising aspirations through links with our University community. Since she started working on the project in 2017, Hannah has been a big part of a journey that has taken the school from an 'inadequate' to 'good' OFSTED rating.



### Amina Nagwamma

VP Community 2019-20 and Union Chair 2020-21, University of Surrey Students' Union

Amina was elected to lead the Union's Community Zone last year, creating a programme of activities to unite students and local communities. The VP Community for 2020-21 is Izzy Watkins, a first-class music graduate, Vice-Chancellor's award winner and founder of Autisoc, a society to support students on the autistic spectrum.



### Shannen Betts

Sport Development Officer (Community), Surrey Sports Park

Shannen is working with local residents to improve the health and aspirations of people of all ages. Shannen leads on several programmes, including working with local schools to access the facilities and staff at the Sports Park.



### Professor Andy Adcroft

Deputy Dean of Surrey Business School

Through his research and local engagement with business and young people, Andy is supporting our local community to be more entrepreneurial. Andy is passionate about education. He leads Surrey Business School's annual Young Persons' University programme and is a governor at Kings College Guildford.



### Professor Hardev Pandha

Professor of Medical Oncology, School of Biosciences and Medicine

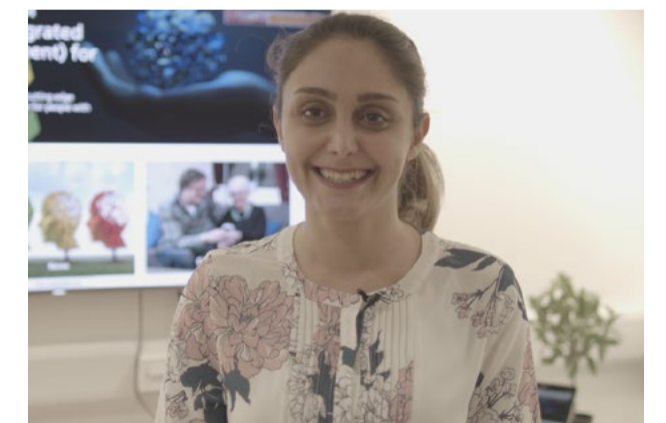
Hardev leads an internationally-acclaimed cancer research group and is director of the Surrey Clinical Research Institute, bringing together cancer researchers at the University and St Luke's Cancer Centre. His group focuses on understanding immune malfunction in patients with cancer, and developing new cancer immunotherapies.



### Steve Payne

Estates, facilities and commercial services

A Guildford resident and long-term employee, Steve works on campus with our estates, facilities and commercial services team. He also works off campus in North West Guildford with Guildford Learning and Development Enterprise to help clean up the local environment.



### Dr Shirin Enshaeifar

Senior Research Fellow in Machine Learning and Healthcare Informatics

Shirin applies cutting-edge research with machine learning, enabling dementia sufferers to receive better healthcare right here in Surrey. She is part of the award-winning TIHM (Technology Integrated Healthcare Management) team working with NHS Surrey and Borders Partnership.



## Exploring why cancer returns in some patients

Cancer survivor Dr James Hull joins forces with six universities to investigate why cancer returns in some patients and not others.

Researchers from the University of Surrey and five other universities across the country will carry out non-invasive investigations of patients' immune systems and tumour cells to identify any unique features that could explain why they have remained cancer free, as part of the Continuum Long-term Survivor study.

With around 363,000 new cancer cases in the UK every year, it's likely that a high percentage of those diagnosed will have a recurrence of the disease within two years of finishing treatment.

Hardev Pandha, Professor of Medical Oncology at the University of Surrey,

said: "Currently it is impossible for us to know if or when cancer will return in patients with a guarded prognosis. We want to know why this happens, if there is something unique that occurs in the immune system of patients who remain cancer free, and whether this knowledge can be designed to create more effective immunotherapy treatments."

Dr James Hull, CEO and Founder of Continuum Life Sciences, said: "I am very grateful to be a cancer survivor. I want to find out everything we can about this devastating illness to spare future generations the difficulties I have gone through in my fight against cancer."

## Pioneering research into infectious diseases recognises close link between human and animal health

The University of Surrey has been awarded €1.4m to conduct cutting-edge research into infectious disease and antimicrobial resistance.

The University's School of Veterinary Medicine continues its collaboration with the One Health European Joint Programme (EJP) to carry out pioneering research recognising that human health is closely linked to the health of animals and the environment.

Over the next three years, researchers will continue to undertake collaborative and interdisciplinary research with European partners to address the global threats of foodborne diseases, antimicrobial resistance and emerging infectious diseases.

The One Health EJP is a landmark partnership consisting of 37 partners from acclaimed medical, veterinary and food laboratories across the EU, and the Med-Vet-Net Association. At its core, the

One Health EJP recognises that the implementation of the 'One Health Concept' through targeted research will be able to harmonise approaches to infectious diseases, both across the EU and globally.

In addition to laboratory and field research, the University has also been integral to the organisation of One Health EJP Education and Training activities for the next generation of 'One Health' scientists.

Dr Dan Horton, Research Director in the School of Veterinary Medicine, said: "With the recent emergence of a novel coronavirus, most likely from an animal reservoir, the importance of One Health research has never been clearer. International and interdisciplinary collaboration is also imperative to prevent and respond to such disease threats."



The team working on providing clean water in the Philippines and south-east Asia. Credit: Carla Pausta

## Surrey project wins Newton Prize

A University of Surrey project that aims to convert waste water into nutrient-rich fertiliser is leading the way on improving the health and prosperity of rapidly urbanising areas in the Philippines and south-east Asia.

In the Metropolitan Manila region of the Philippines, 75 per cent of sewage flows untreated directly into natural water bodies, causing severe water pollution and adversely impacting people's health and the local economy.

The Water-Energy-Nutrient Nexus in the Cities of the Future project, led by the University of Surrey, has created a solution to convert wastewater into fertiliser. The research team were able to use data analysis to show that almost 5m kilos of phosphate from sewage can be recovered from a single zone in the region for use as fertiliser.

The success of the project in improving sanitation and providing clean water will have both economic and social benefits, improving the health of the population, creating jobs and providing motivation for other cities in the Philippines to invest in sanitation.

In January, the project won the Philippines category of the prestigious Newton Prize, an annual £1m fund developed to showcase how UK science and innovation partnerships are helping to solve global development challenges.

## A breath of fresh air

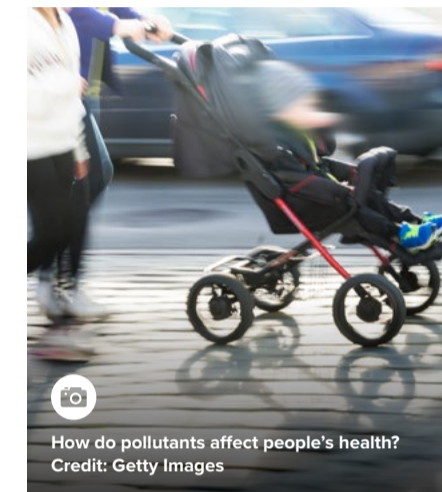
The University of Surrey has been awarded a share of a £2.79m grant by the Engineering and Physical Sciences Research Council (EPSRC) to investigate the impact of indoor and outdoor pollution on people's physical health.

Surrey's Global Centre for Clean Air Research (GCARE) is working with Imperial College London and other partners to research the immediate impact of pollution in the environment that immediately surrounds a person.

The INHALE project – Health Assessment across Biological Length Scales for Personal Pollution Exposure and Its Mitigation – will examine the biological and physical aspects of pollutants, and how this relates to health outcomes.

Professor Prashant Kumar, Director of GCARE at the University of Surrey, said: "As the world wakes up to the perils of climate change – and the damage it does to our

planet and human lives – we hope that this project will move us closer to building a world where clean air is available to all."



How do pollutants affect people's health? Credit: Getty Images

## Innovation at Surrey recognised

The University of Surrey and Surrey Research Park were once again recognised at the Guildford Innovation Awards sponsored by Kyan in December.

The annual Guildford Innovation Awards celebrate innovation across a broad spectrum of sectors in the local area.

The 'Innovation in Healthcare' award was presented to Dr Kamalan Jeevaratnam and Dr Vadim Alexeenko from the University's School of Veterinary Medicine. They were recognised for their pioneering research into rapid detection of 'paroxysmal atrial fibrillation', a common heart rhythm abnormality in horses and humans - which affects athletic performance of racehorses and is the major cause of stroke in humans.

Dr Sharmini Julita Paramasivam scooped 'Most Outstanding Innovation' for her novel Animal Neighbours Project, which uses

research and awareness to stop conflict between animals and humans living in close proximity to each other. The project also provides vital insight into zoonotic diseases, a major worldwide threat to human health at ecotourism sites.

The awards also recognised Dr Saber Fallah and his team for their work on autonomous vehicles and Technics Group, a company based at Surrey Research Park, which provides world-class geographic information services that help agencies operating in the most challenging environments.

To volunteer for the Animal Neighbours project, visit: [animalneighboursproject.org](http://animalneighboursproject.org)



Piers Palmer, Co-Founder of event sponsor Kyan (left) with Dr Sharmini Paramasivam (centre) and Daniel Gillett from the award-winning Animal Neighbours Project. Credit: Guildford Borough Council

## Groundbreaking TB treatment

New drugs to treat strains of tuberculosis (TB) which have become resistant to treatment are now a possibility following a groundbreaking discovery from the University of Surrey.

Through a new and exciting study, researchers have successfully identified the source of nitrogen in host blood cells that allows the TB bacteria to make proteins and DNA.

This discovery will enable researchers to develop new

anti-TB drugs which will prevent TB bacteria accessing the nitrogen it needs to survive and replicate.

Johnjo McFadden, Professor of Molecular Genetics at the University of Surrey, said: "TB is one of the world's deadliest infectious diseases. Our finding paves the way for the development of drugs which can target uptake of the very amino acid that enables the bacteria to replicate and spread within the body."

## Improving end of life care

Researchers from the University, together with the British Geriatrics Society and other partners, have developed new guidelines to support doctors, nurses and health professionals in delivering high-quality end of life care.

Covering the final year of life for people living with frailty, the guidelines address issues including the uncertainty faced by older people and their families, communication between medical professionals, their patients and family members, advance care planning, law and ethics, as well as the management of pain, delirium, incontinence and swallowing difficulties.

Caroline Nicholson, Professor of Palliative Care and Ageing at the University of Surrey and Co-End of Life Lead for the British Geriatrics Society, said: "As people move towards their end of life, it is imperative that their wishes and needs are listened to and acted upon. It is important that healthcare professionals are supported in helping ensure these needs are met."



New guidelines for providing quality end of life care. Credit: Getty Images

## Managing bipolar disorder through wearable technology

A wearable lithium drug monitor developed by the University could change the lives of patients who suffer from bipolar disorder and depression.

It's estimated that bipolar disorder affects one in 100 people and lithium remains the most effective long-term therapy for the condition. It's incredibly important to monitor lithium intake as it has a narrow therapeutic range and can be toxic once levels elevate above it.

In a new study, researchers at Surrey in collaboration with the

University of Bath, detail how they have developed extraction fibres to draw lithium from under the skin. They have created a wearable monitor that can be used by patients.

Their monitor was able to detect lithium and could also determine the lithium concentration levels and potentially give a warning signal that high levels had been reached. The team is now looking to investigate whether these devices could be sensitive enough to detect extremely narrow therapeutic ranges of lithium.

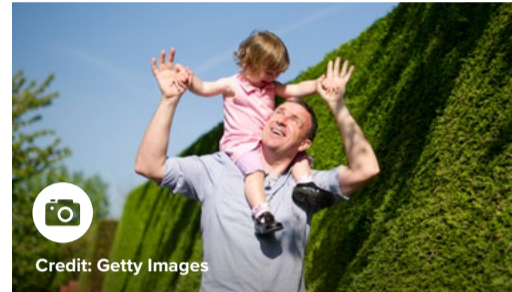
## Protecting playgrounds: hedging against traffic pollution

Planting a hedge in front of a park can halve the amount of traffic pollution that reaches children as they play, a new study has found.

Experts from the University of Surrey's Global Centre for Clean Air Research (GCARE) conducted a five-month experiment, measuring traffic pollutants in a children's park in Guildford.

The study aimed to measure pollution reduction during the lifecycle of a beech hedge. It reported a reduction in pollution of more than 50 per cent after the hedge's 'green-up' stage in late April. Experts believe that could be due to density of the hedge or the stickiness of the leaves when particle pollutants pass through it. Professor Prashant Kumar,

founding Director of GCARE, said: "The reduction in pollution after the green-up stage gives valuable information regarding where to install green infrastructure across our communities."



Credit: Getty Images

## Surrey academics collaborate with peers across the globe on sustainability research projects

### Network to analyse the governance of plastic pollution in Africa

The Governing Plastics Network, led by the University of Surrey and the University of Nairobi, will investigate how local and national governments in six Development Assistance Committee countries frame messages about plastics and analyse how these messages lead to efficient regulation. The Network will also look to understand whether these messages, particularly from the media, filter to the population and change behaviour.

Rosalind Malcolm, co-lead of the Governing Plastics Network and Professor of Law at the University of Surrey, said: "The story about plastics has dramatically shifted over the past 50 years, driven by people finally understanding the damage plastic waste has on our planet. We need to turn that understanding into a body of rules which ensures that plastics do not continue to degrade the environment, hurting wildlife and polluting the oceans."

### Free electrical energy from movement to power future portable electronics

We could soon be using "free electricity" generated by our own movements to power our portable devices, according to a breakthrough study from the Universities of Surrey and Loughborough.

In a paper published by Nano Energy, researchers detail how they cracked the unreliable nature of previous triboelectric nanogenerators (TENGs) – a type of low-cost and lightweight energy

generator which can be produced using recyclable materials.

In the new study, the team show how they created direct current triboelectric nanogenerators (DC-TENGs), resulting in the technology generating continuous power, like that used in most electronic devices. The researchers successfully demonstrated the sustained powering of a number of electronic devices, including LEDs and electronic watches using movements similar to that found in the ambient environment.

### Upgrading WHO forms could improve water quality for vulnerable communities

The World Health Organisation's (WHO) sanitary inspection (SI) forms need an urgent upgrade to help improve the quality of small water supplies in some of the world's most rural and vulnerable regions, a new study has found.

According to the WHO, many small drinking supplies are not regularly monitored and inspected. Importantly, it is feared that such supplies do not provide safe or sufficient drinking water for the communities they serve – many of whom are vulnerable.

In a paper published by the journal *Resources*, experts from the University of Surrey, interrogate the usability of SIs – a key tool used globally to identify risks in water supplies.

The study recommends that questions in the SI forms are revised to make sure that inspectors interpret them consistently – providing them with targeted technical guidance for each question.

## Surrey steps towards sustainability

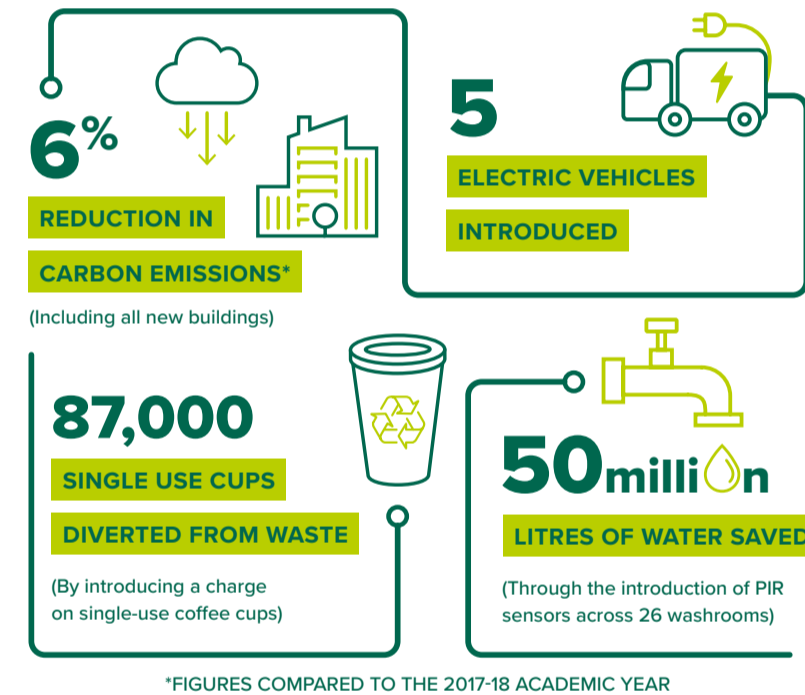
The University is taking several steps towards sustainability with an ambitious goal to achieve net zero carbon emissions by 2030.

To do this, the University will be increasing on-site renewable energy generation, increasing the amount of energy purchased from clean sources and considering where we can offset our carbon footprint.

In December 2019, the University pledged to stop providing single-use plastic cups across campus and has begun to replace them with compostable cups which are 100 per cent vegetable-derived. The long-term goal is

to have all staff and students using a reusable cup or bottle at refill points.

The University has also committed to reducing water use, partnering with Thames Water as part of the 'Smarter Business Visits' programme. This aims to review and improve water efficiency across campus with an estimated saving in excess of 50m litres per year, to support the University's commitment to reducing its water use by 15 per cent.



## Citizen science to tackle marine litter

An innovative new project from the University is set to investigate how volunteers can be used to tackle marine litter.

The study, which is the first of its kind, is one of 53 projects to share £1.4m from the UK Research and Innovation (UKRI) Citizen Science Exploration scheme that aims to engage UK citizens in world-leading research.

Marine litter is an urgent and growing problem. The study will use volunteers to help understand and tackle the issue of marine litter by recording (and removing) debris found in different environments.

Dr Kayleigh Wyles, Lecturer in Environmental Psychology at the University of Surrey, said: "The work of volunteers is invaluable, and we need to further understand why they choose to take part as well as identify any obstacles they face. The ultimate goal of this project is to encourage activities that are beneficial to both science and the citizen scientists."

## Academics join fight against Covid-19 with research and innovation

When news of Covid-19 broke in December 2019, little was known about the virus that would go on to take hundreds of thousands of lives worldwide and leave the global economy on the brink of a recession. Surrey's research community immediately began working on multiple contributions to understand, tackle and mitigate the impact of this new threat. Today, more than 100 Covid-19 research projects are underway with c90 further funding proposals in progress. *Your University* takes a look at a small selection of Surrey's research contributions.



Covid-19 virus magnified. Credit: Getty Images

## Tackling indoor airborne transmission of Covid-19

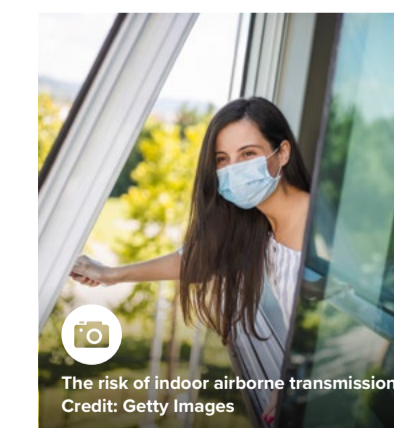
Preventing airborne transmission of Covid-19 should be the next front of the battle against the virus, argue experts from the University of Surrey.

In a study, scientists from Surrey's Global Centre for Clean Air Research, together with partners from Australia's Queensland University of Technology, suggest that the lack of adequate ventilation in many indoor environments increases the risk of airborne transmission of Covid-19. After an open letter by the 239 scientists, including the authors, was published, it led the World Health Organization to acknowledge the 'evidence emerging' on the airborne spread of the virus in early July this year.

Covid-19, like many viruses, is less than 100nm in size but expiratory droplets (from people who have coughed or sneezed) contain water, salts and other organic material, along with the virus itself. The experts note that as the water content from the droplets

evaporate, the microscopic matter becomes small and light enough to stay suspended in the air and over time the concentration of the virus will build up, increasing the risk of infection – particularly if the air is stagnant like in many indoor environments.

The study highlights improving building ventilation as a possible route to tackling indoor transmission of Covid-19.



The risk of indoor airborne transmission. Credit: Getty Images

## Mass spectrometry to analyse Covid-19 samples

Surrey researchers are applying specialist skills in mass spectrometry to assist in accelerating the search for a Covid-19 vaccine.



Surrey researchers are applying groundbreaking techniques to help search for a Covid-19 vaccine.

The team is applying groundbreaking techniques to the analysis of test samples taken from Covid-19 patients in order to look for novel testing and treatment regimes and insights into the mechanisms underlying severe disease.

The team answered a call from the British Mass Spectrometry Society, led by

Professor Perdita Barran from the University of Manchester, for experts in this field of science to join together and analyse Covid-19 to help the wider scientific community gain a better understanding of the virus.

The University of Surrey team has already received more than 80 samples from Frimley Park Hospital.

## University selected as site for Covid-19 vaccine

The University of Surrey has been selected as one of the locations to trial a new Covid-19 vaccine. Developed by scientists from Imperial College London, the vaccine is currently undergoing the first phase of human testing. The next phase of the trial will see more human testing at a number of additional sites across the country including at the University of Surrey, led by Dr Hana Hassanin.

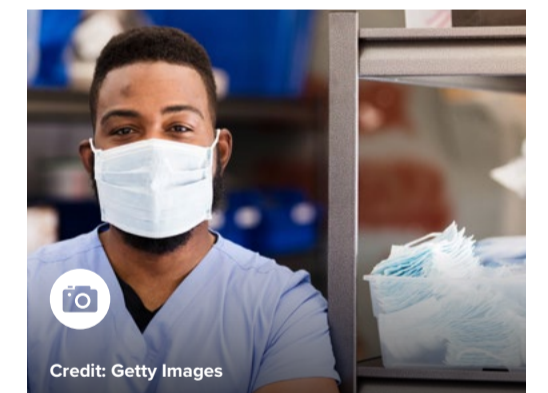
Professor Simon Skene, from the University of Surrey, said: "Trialling vaccines in humans is an essential step in our fight against viruses such as Covid-19 and I am thrilled that the team at Surrey are contributing to this important trial."

## Supporting nursing staff during the pandemic

The universities of Surrey and Southampton have developed guidance to support the psychological and mental health needs of nursing staff during Covid-19.

Published in the *Journal of Clinical Nursing*, researchers identified the stressors and challenges nurses face during the Covid-19 pandemic and have developed guidance offering strategies for nursing team members across health and social care settings to support their psychological wellbeing. The importance of peer and team support is highlighted in the guidance and outlines what managers, organisations and leaders can do to support nurses.

The guidance identifies physiological and safety needs, peer support, team support, and the roles and requirements



Credit: Getty Images

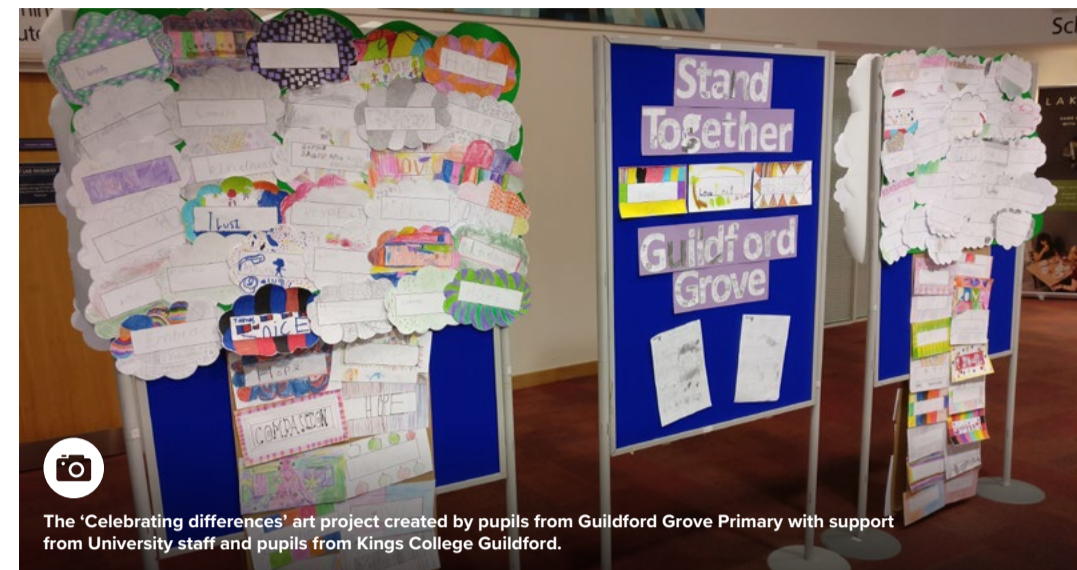
of managers and leaders as well as long-term recovery assistance.

## Covid-19 test kit collaboration

A new Covid-19 test, which can detect the presence of the virus in six different individuals simultaneously in under 30 minutes, has been developed following a partnership deal with leading electronic, robotics and software companies.

Brunel University London, together with Lancaster University and the University of Surrey have joined forces with Vidia Ltd, Inovo Robotics and Unique Secure to

develop an inexpensive, rapid, diagnostic test kit that can accurately inform people if they have Covid-19 in under 30 minutes. The results from the current virus detection tests normally take several hours to process. It is anticipated that the device will be made widely available to be used in areas such as care homes, sizeable employers and airports.



The 'Celebrating differences' art project created by pupils from Guildford Grove Primary with support from University staff and pupils from Kings College Guildford.

## Speak Up! Speak Out! Holocaust Memorial

To commemorate Holocaust Memorial Day earlier this year, the University's Widening Participation and Outreach Department held their spoken-word poetry workshop, Speak Up! Speak Out!

Year 9 pupils from Kings College Guildford and Woolmer Hill School in Haslemere discussed the Holocaust and other historical acts of discrimination, before writing and performing powerful spoken-word pieces.

Six pupils from Kings College Guildford performed their inspirational pieces at the University's Holocaust Memorial Day commemoration event, where they were joined by cast members from the

Guildford School of Acting's production of *Anne Frank*. Other guest speakers included Guildford resident and former-eevacuee Beatrice Gould, who told guests about growing up in 1930s Munich and how her life was dramatically altered under the Nazi regime.

To coincide with the Speak Up! Speak Out! workshop, University staff and Kings College Guildford pupils visited Guildford Grove Primary in Park Barn for a 'Celebrating differences' art project. More than 300 Guildford Grove pupils from Years 1-6 created a vibrant artwork under the theme 'stronger together' to celebrate diversity and bring the Park Barn community together.

## Celebrating Kings College Guildford

Data released by the Department for Education earlier this year revealed that Kings College Guildford is in the top 3 per cent of most improved schools in the country. The secondary school was also recognised as being in the top 3 per cent for the most improved academic performance in England.

The University launched a partnership with Kings College Guildford and the Guildford Education Partnership Multi Academy Trust in May 2017. The partnership was launched as part of the University's 50th anniversary celebrations as an opportunity to give back to a community living within close proximity of the University's campus. The initiative has been working for the past three years to engage and inspire young people studying at Kings College Guildford to think about future educational pathways and to raise their aspirations.

Surrey's Widening Participation Coordinator, Hannah Trott, has been based at Kings College Guildford since 2017, where she has been focusing on bridging the gap between higher education and schools for Guildford's young people and their guardians.

The University would like to take this opportunity to congratulate the Kings College Guildford community on their fantastic achievement. We look forward to continuing our partnership and watching the school go from strength to strength.

## Tackling youth isolation across borders

School pupils experiencing isolation and disruption in the wake of the Covid-19 pandemic were supported by the University's Widening Participation and Outreach team through the European Connect project.

Bringing together 96 likeminded UK and EU students, the initiative involved the University's student mentors, secondary school pupils and college students, who worked together in an online academic environment to complete a group research project.

Participants received resources, webinar content and reading lists designed to aid independent and group study before giving virtual group presentations to an audience of University staff and academics.

Participants gained experience of working alongside students from other countries, developed communication, research and presentation skills and were able to put their lockdown time to good use.

## Lockdown learning receives book bundle boost

When the Covid-19 lockdown led to a period of home learning for many students in Guildford, the University's Widening Participation and Outreach team were on hand to help with online resources and book bundles.

Our Book Access Scheme provided a bundle of five recommended reading books including fiction, non-fiction and poetry to ensure young people had access to literature while schools and libraries were closed. To date, the scheme has provided more than 300 book bundles to young people who are in local authority care, those who are young carers and young people who are eligible for free school meals.

The University also ran 'The Book Quest' - a virtual book club with the Higher Education Outreach Network. The scheme provides secondary school students with access to an online portal with missions and pursuits to support literacy

development alongside an accompanying book.

The University ran its first ever virtual summer schools this year, including subject-specific summer schools for pupils in Year 12 and a 'Discover University' summer school for young carers.

To see our 'At home activities' and 'Masterclass webinar series', search @SurreyOutreach on Twitter and Instagram.



A bundle of recommended books

### DATE FOR YOUR DIARY

The University is looking forward to taking part in the Economic and Social Research Council's Festival of Social Science from 7-15 November. This year will be a digital-first event, and will feature exciting and creative events run by 34 partners.

For more information, please visit: [esrc.ukri.org/public-engagement](https://esrc.ukri.org/public-engagement)

### DID YOU KNOW?

The University of Surrey runs a book group for Teaching Assistants. For more information, please contact: [wp@surrey.ac.uk](mailto:wp@surrey.ac.uk)

## Covid-19: Surrey students take action

As Covid-19 spread across the globe, it brought with it a clear reminder of the critical role that university communities have to play in supporting society through one of the biggest challenges of our time. From delivering food and prescriptions to creating entertaining activities for care homes, we have been incredibly proud to see so many of our students give their time so generously to support others.

This kindness, compassion and community spirit is common in our student population. In 2018-19, the Students' Union's Community Zone recorded 2,464 active student volunteers and 219 partnerships with charities and good causes. The same year, the Union's annual Raising and Giving initiative donated more than £26,965 to local charities such as Shooting Star Chase and Oakleaf Enterprise, while its #getgivingfood campaign has seen 17,400 items donated to the North Guildford Food Bank since 2015.

Surrey students also support local events, exhibiting at the Innovate Guildford Festival, creating gardens for Guildford in Bloom and supporting World Space Week here in the town.

Your University reflects on the activities of ten students who supported their communities in the wake of the pandemic.



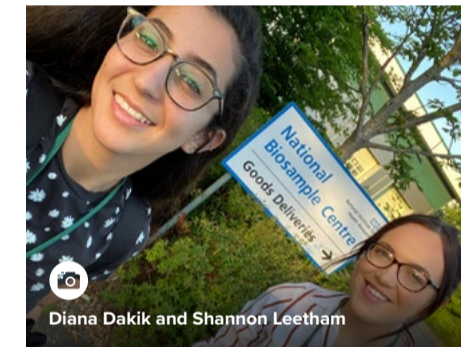
Karishma Thakrar

Karishma answered the NHS call for volunteers during the pandemic, becoming a 'check and chat' volunteer, supporting others while shielding herself at home. This service aims to tackle issues of isolation and allows vulnerable people to be referred for a call from a friendly and supportive volunteer like Karishma.



Maile Wedgwood. Credit: RSCH Medical Illustration

Maile has volunteered at the Royal Surrey County Hospital, running the patient property drop off service which helped over 1,500 patients while visiting was suspended. She also worked on the front line as a Healthcare Assistant in the geriatric dementia ward and A&E department.



Diana Dakik and Shannon Leatham

Diana and Shannon, PhD students focused on immunology and virology, signed up to support a Government-funded 'mega-lab' that rapidly bolstered the nationwide Covid-19 testing programme. Using their scientific skills to support the national effort, they worked 12-hour shifts, three to four days a week, alongside their studies. Diana explained: "Being part of the testing effort makes us feel proud to be scientists."



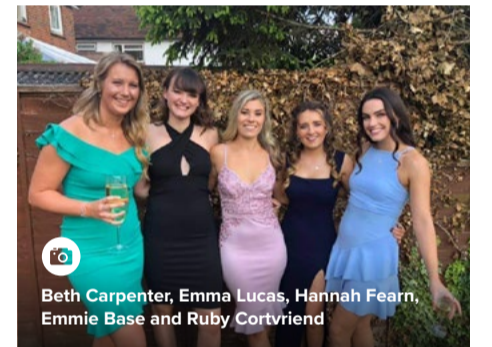
Rufaro Mazarura

To support her peers during the Covid-19 pandemic, Rufaro put her time and energy into creating a new podcast series called 'Class of 2020'. It covers different areas of student life from mental health to job hunting with students and experts sharing their experiences and advice, as well as exploring the varied experiences of young people graduating during this difficult and uncertain time.



Alex James

Alex produced the Rodolfus Foundation's *Virtual Evensong*, which premiered on 19 May, featuring 270 singers, musicians and worshippers from 20 countries around the world including contributions from Stephen Fry, Simon Russell Beale and Alexander Armstrong. The live event was watched by nearly 4,000 people and the video has since had more than 37,900 views on YouTube.



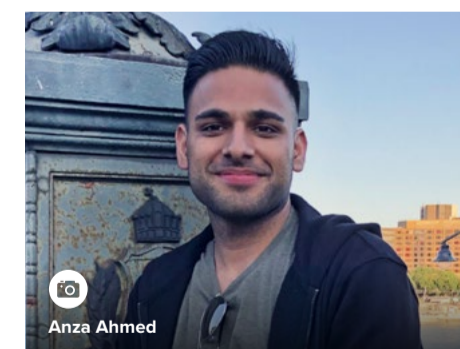
Beth Carpenter, Emma Lucas, Hannah Fearn, Emmie Base and Ruby Cortvriend

When final-year nursing students Beth, Emma, Hannah, Emmie and Ruby signed up to the NHS emergency register, their Surrey Netball teammates showed their appreciation by raising money for the NHS. Running or cycling the duration of a whole 13-hour shift, each day for five days, in dedication to each of the five nurses, the club raised an amazing £2,555 and covered 1,097km.



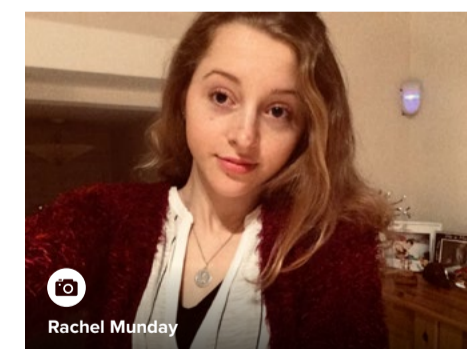
Hannah Whitelegg (left) and fellow volunteers

Hannah volunteered her time and support through St John Ambulance at the NHS Nightingale in London and University Hospital Lewisham. Asked about her experience, she said: "It was a massive learning curve - we had to get used to wearing full PPE, working long shifts...but we had the chance to help people that were really sick and make a difference."



Anza Ahmed

Anza was promoted from his usual role at Boots in Guildford to work in the pharmacy department, gaining a qualification in pharmacy services and dispensing, and easing the pressure facing the service during the pandemic. Anza has given over 400 hours to support the NHS, explaining: "I love helping others and being useful to the community wherever help is needed."



Rachel Munday

Rachel created a weekly news round, with brain-teaser activities, puzzles and history facts, for the residents at a local care home. With visits to the home suspended, and many of the usual activities no longer possible to ensure everyone's safety, Rachel wanted to provide residents "...with something that would keep their brains active... while also reminding them they are not alone."



Ash Stott, Beth Campbell and Tim Sidnell

Tim, Beth and Ash used their daily lockdown walks to litter pick. Noticing an increasing number of disposable gloves and masks, which could risk passing on the virus, they reached out to Guildford Borough Council and were given litter picking equipment through the 'Adopt a Street' scheme. At last count, they had collected 32 bags of rubbish.

## Meet the student nurses working in your local community

If you've visited a hospital or healthcare centre in Guildford and the surrounding area, you've probably met one of Surrey's incredible student nurses.

With 2020 marking the International Year of the Nurse and Midwife, *Your University* caught up with Zoe, Cosmin and Bryony, three student nurses who have cared for the local community on their Professional Training placements, to find out what a typical day involves.



Student nurse, Zoe Childs



Student nurse, Cosmin Staicu



Student nurse, Bryony Banfield

Zoe Childs, BSc Nursing Studies (Registered Nurse, Children's Nursing)	
8am	Arrive at office where the team inform me on the plan for the day.
9:15am	Leave office with mentor for the first visit.
9:30am	Arrive at the house. Observe mentor taking pre-chemotherapy bloods for a 10 year-old girl undergoing treatment the following day.
10am	Take the bloods to the laboratory.
10:45am	Arrive back at office. Write up notes about the visit which my mentor then reads and copies onto the computer.
11:30am	Leave office for the next visit.
12:10pm	Arrive at home of 3 year-old boy requiring a gastrostomy button change. My mentor and I assist the mother and sign her off as competent in performing this task.
1:20pm	Arrive back at office.
1:30pm	Have lunch.
2:15pm	Collect new patient equipment box and leave the office for the next two visits.
3pm	Arrive at home of 16 year-old girl requiring intravenous antibiotics. Set up tray ready for my mentor to administer the medication. Discuss future care plan with the family.
4pm	Prepare for the next visit in the car.
4:15pm	Arrive at home of 13 year-old girl who requires daily wound care. I perform the dressing change while my mentor assists.
5:30pm	Return to office and write up visit notes.
6pm	Home time.

Cosmin Staicu, BSc Nursing Studies (Registered Nurse, Mental Health Nursing)	
7am	Arrive on the ward and receive handover from the night staff.
7:30am	Check on the patients and see who needs support. Assist with medication.
8am	Serve breakfast and assist those who need help.
8:30am	Record all the fluid and food intakes for every patient, then help staff to make all the beds, change sheets and support patients.
9:30am	Attend meeting where doctors and nurses discuss actions with regard to care and support for patients.
10:30am	Check in on all the patients and see if they need any support, a cup of tea, or just a chat.
11:10am	Participate in the discharge planning for one of the patients.
12pm	Lunchtime for the patients.
1pm	Break for one hour.
2pm	Back on the ward to spend time with the patients.
3pm	Take temperatures, blood pressures, respiration rates and oxygen levels.
4pm	Activities in the lounge: puzzles, arts and craft. Other patients watch a film.
5pm	Dinnertime for the patients.
6pm	Medication time.
7pm	Support anyone who needs help with their personal care, such as going to bed.
7:30pm	Handover notes for the night staff including events, food and fluid intakes and medication etc.
8:30pm	Hand over to the night staff team, with support from the nurse in charge.
9pm	Commute home to my young family.

Bryony Banfield, BSc Nursing Studies (Registered Nurse, Adult Nursing)	
7am	Morning handover.
7:30am	Handover ends and I am assigned to a 6-bed bay today.
8am	Breakfast and the morning medication round with a lot of patients taking medication to control chronic conditions.
8:45am	I observe two registered nurses on a controlled drug round.
9am	I assist patients with washing and dressing.
11am	I check in with the doctors to see what needs to be done for my patients today.
11:30am	Time for a half hour break. By now, I'm usually starving!
12pm	Lunchtime and a medication round.
1pm	Checking observations, collecting urine samples, wound care and removing cannulas. I also observe other clinicians take blood samples, put up IV medications and catheterise patients.
3pm	I write my nursing notes on a computer system. They must be accurate as they form part of patients' medical records, which are legal documents.
4:30pm	Afternoon break.
5pm	Dinner arrives for the patients. Patients often have visitors in the afternoon, which is beneficial for patient wellbeing. Family members use this time to get updates from nursing staff.
6pm	Medication round and a chance to check in with the patients before the handover.
7pm	Evening handover.
7:30pm	Home time.



### DID YOU KNOW?

Our School of Health Sciences is currently ranked 4th in the UK by the *Complete University Guide 2020* as well as *The Times* and *The Sunday Times Good University Guide 2020*.

## 'Kind, caring and incredible midwife' Maddy is shortlisted for award

Maddy Taggart, 23, a newly-qualified midwife who recently finished her studies at the University of Surrey's School of Health Sciences, was one of five finalists shortlisted for a national gong at the prestigious Royal College of Midwives Awards.

Maddy, who recently completed her training at the Royal Surrey NHS Foundation Trust, was a finalist for the Student Midwife of the Year category, which seeks to recognise an individual student midwife who makes an outstanding contribution to their future profession.

Newly-qualified Maddy has been praised by mothers-to-be as a 'kind, caring and incredible midwife.' One mother described how she 'helped to make something potentially traumatic into something absolutely wonderful.'

Louise Davies, Director of Studies for Midwifery at the University of Surrey, said: "Congratulations to Maddy on this tremendous achievement. Training to be a midwife is very demanding and I am proud that Maddy's hard work and dedication has been recognised in this way."

As former Vice-President of the Midwifery Society, Maddy was also commended on how she used her role to support and encourage first-year student midwives, as well as undertaking a peer simulation teaching role.



Student midwife, Maddy Taggart

Maddy said: "I was delighted to be a finalist for this award. Being a midwife has always been a dream of mine and it is such an honour to be a part of so many life-changing moments with local families. I am looking forward to starting my career, and I am particularly grateful for all the opportunities from the RSCH and the University that have made such a difference."

Amy Stubbs, Deputy Director of Midwifery, Royal Surrey NHS Foundation Trust, said: "Maddy is an exceptional student midwife and goes out of her way to ensure the ladies and their partners are reassured and informed about the whole process."

## Meet Lizzie Rodulson, new President of the Students' Union

The University of Surrey Students' Union is a not-for-profit organisation that represents our students at a local and national level. Run by students for students, the Union is led by elected sabbatical officers. *Your University* asked the President, Lizzie Rodulson, how well she feels Surrey students integrate into the Guildford community while studying in the town.



"Students at Surrey are lucky to live in a town as diverse and as vibrant as Guildford. Many of them spend their time at university giving back to the local community which, for many of them, is their first home away from home.

"Through multiple different volunteering opportunities and community sustainability days, many students go out into the community to support fellow residents. They also get involved in litter picks and events such as Guildford Borough Council's Guildford in Bloom competition, helping to make Guildford a better place for all.

"Student life can sometimes present challenges for residential areas

around a university, however as a Students' Union we are committed to working with our student members to ensure their activities do not negatively impact those around us. Annual activities include our joint Ssh campaign to tackle street noise and policies to ensure student societies use specific pedestrian routes if walking into the town centre.

"We are always open to new ideas too. Please do get in touch with our VP Community, Izzy Watkins, if you have any thoughts on how the Students' Union can involve our members in more community activities."

[ussu.vpcommunity@surrey.ac.uk](http://ussu.vpcommunity@surrey.ac.uk)

## The transformational impact of the Emergency Student Support Appeal

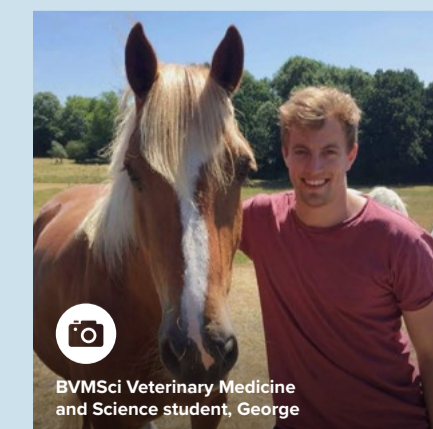
Launched in April, the University's Emergency Student Support Appeal was created to provide funding to the most vulnerable students that were affected by the Covid-19 pandemic.

The response to this appeal from our Surrey alumni, supporters and friends has been remarkable, with the total financial donations now surpassing £300,000. Two beneficiaries of the appeal, George and Pamela, told the University how the financial support has made a difference to their lives.

George is a hard-working third year BVMSci Veterinary Medicine and Science student. Throughout his studies, George has worked as a Duty Manager at the campus club, Rubix, and participated in voluntary training to become a Police Officer with the London Metropolitan Police.

However, as part of his degree, George is also required to undertake regular industry placements. Many placements offer a low wage, or in some cases, are unpaid. With Covid-19 affecting part-time job opportunities, George found that he was facing significant financial pressures, which ultimately began to affect his mental health. With the encouragement of a friend, he decided to seek support.

George received a hardship grant, meaning he no longer needs to worry about how he will make his next rent payment or cover bills and is now able to concentrate on completing his degree. Speaking of the scheme, he said: "A donation to the Emergency Appeal really can make such a big difference both in terms of future and career options. It can help someone with their mental health and relieve them of financial worries, giving them time to focus on their degree. It really can make such a big difference. Thank you."



BVMSci Veterinary Medicine and Science student, George

Pamela, a first-year BSc Microbiology student, is an international student, which means that she is not eligible for a maintenance loan from Student Finance England. Throughout her first year, she worked in a restaurant at weekends and as a cleaner during the week, juggling two part-time jobs around her studies to support herself.

As a direct result of the Covid-19 pandemic, she lost her job at the restaurant and faced severe financial difficulties. She was also worried that she would be unable to fly home and would be isolated in England during the outbreak.

Pamela received an emergency hardship grant, and told us how the money has changed her life, enabling her to complete the first year of her microbiology degree. She said: "Many students can't finish their studies due to financial problems and they have the potential to do really good things. Without your help, I would have been alone in England worrying about money. Thank you."

Max Lu, President and Vice-Chancellor, said: "I am learning daily of students who are facing hardship due to Covid-19. Thank you to everyone who has already given. We are fortunate to have such a kind and caring community of donors."

If you would like to donate to the appeal, please visit: [surrey.ac.uk/emergencyappeal](http://surrey.ac.uk/emergencyappeal)



BSc Microbiology student, Pamela

## Student Enterprise and Santander Universities boost resources for local organisations with new Digital Internship Programme

As well as impacting on the general health of the population and the UK economy, the Covid-19 pandemic has presented many significant challenges for individuals, businesses and not-for-profit organisations. This has included entrepreneurs and their start-up enterprises, student graduates moving into the workplace and charities, for whom the repercussions have proved particularly severe.

Thanks to a Covid-19 relief fund from Santander Universities, the University's Student Enterprise team has launched a number of initiatives designed to provide support to some of these groups here in Guildford. This has included an innovative Digital Internship Programme, which has seen talented student interns placed in ten local start-up companies and charities, giving them a much-needed boost during this difficult time.

For student and graduate interns, some of whom had their summer work arrangements cancelled or are facing employment freezes as they step out of university, this timely opportunity has provided them with paid work. Undertaken remotely during lockdown, a wide range of digital roles have been created to suit their skillset, including web design, coding, social media content creation and marketing campaigns.

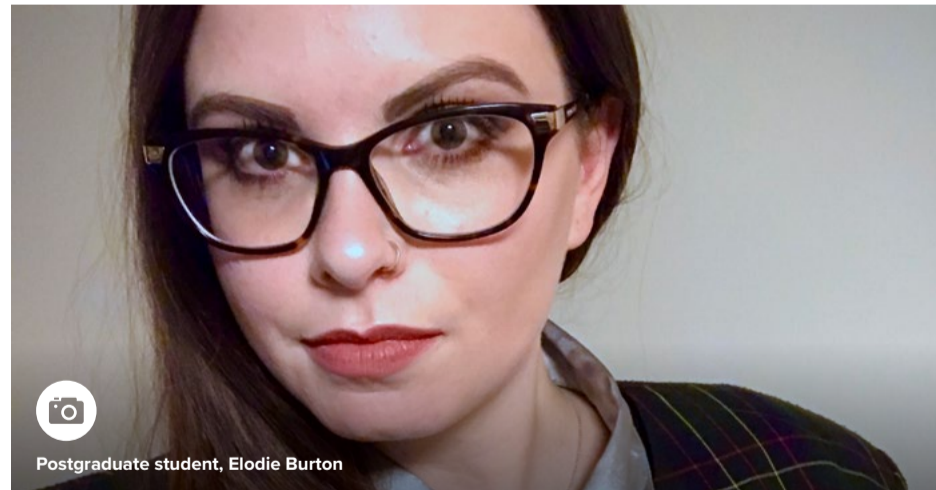
*Your University* takes a look at what four students have been up to on their internships.



Computer science student, Andrei Vanvu

Technical Developer Intern and BSc Computer Science student, Andrei Vanvu was matched with Crumble, a Student Enterprise-incubated start-up that helps people to collect, discover and create high-quality research. Speaking of his experience, he said: "It has been an absolute success. I learned quite a bit and loved being able to have such a big impact on their product."

Founder, Arun Godwin-Patel, said: "The internship has been invaluable – it has allowed us to keep innovating throughout this period to release a beta and alpha product to our users. This meant we could collect vital feedback and has helped us to keep moving forward. We really hope to keep Andrei on in the future!"



Postgraduate student, Elodie Burton

Part Of The Night, a live events company and member of local business incubator based in Surrey Research Park, SETSquared Surrey, were keen to take on an intern to help them survive the temporary government ban on events. They found a perfect match in Elodie Burton, an International Events Management masters degree student, who was facing unemployment this summer due to the impact on the events industry.

Founder, Jessica Bickel-Barlow, said: "Having Elodie in the team has helped us grow the digital side of the business much more quickly than I would have thought possible, for example launching Happy Hour Zoom Entertainment for remote-working teams. This funded opportunity has helped us at a time when we were struggling, enabling us to make a huge pivot, meaning our company has truly accelerated."



Undergraduates, Amelia Lunnon and Oliver Norrington

Undergraduates Amelia Lunnon (BSc Business Management) and Oliver Norrington (BSc Computer Science) have teamed up to develop a feedback app for Guildford-based charity, Challengers, which provides play and leisure activities for disabled children. They have worked with parents and staff at the charity to develop a meaningful method for sharing feedback, and their combined skillset means the students have been able to scope the project from both a qualitative and technical perspective.

Head of Quality at Challengers, Laura Baxter, said of the programme: "This year has been incredibly difficult for Challengers and with the financial impact of Covid-19 so damaging for our fundraising, we have had resources cut and even scheme closures as a result.

"Before all of this came about, we had however partnered with Student Enterprise and social enterprise group Enactus at the University of Surrey on a hackathon to solve some challenges within our charity. The aim was for students to bring innovation to the needs of disabled children and young people, whilst simultaneously becoming better informed about disability.

"One of the solutions presented at the hackathon was the parent feedback app, so when we were offered interns funded by Santander via the University, it gave us the opportunity to start developing this app, which will improve our services for disabled children and their families and could even offer a source of revenue for the charity in the future; it's a real positive to come out of this troubling time.

For more information on Student Enterprise, please contact Student Enterprise Manager, Kat Mack: [k.mack@surrey.ac.uk](mailto:k.mack@surrey.ac.uk)



### DID YOU KNOW?

The University of Surrey's Student Enterprise Programme offers practical business support to entrepreneurial students from all disciplines who aspire to run their own business, create a social enterprise and develop enterprise skills for within their careers.

## Rallying, pivoting and growing despite Covid-19

An established culture of innovation and collaboration, coupled with flexible working practices and impactful business support, has enabled tenants at Surrey Research Park (SRP) to adapt and, where necessary, pivot to grow against the current Covid-19 backdrop.

A survey of SRP tenants revealed that 57 per cent of respondents are pivoting or diversifying as a result of Covid-19.

35 per cent have identified new applications for their technology and 39 per cent are accelerating innovation.

Home to some of the county's most dynamic businesses in MedTech, space, engineering and software development, recent innovations on the Park include:

1. Microfiltration specialist, Smart Separations, are developing smart coatings to destroy Covid-19 on physical surfaces as well as launching its revolutionary air sanitiser which destroys microbes in the air and is proven against the virus.

2. Fertility specialist, Igenomix is repurposing its labs for Covid-19 polymerase chain reaction testing.

3. Robotic arm manufacturer, Inovo Robotics and Point of Sale manufacturer, Unique Secure, are joining the University of Surrey, Brunel University London and Vidiiia Ltd to create a new Covid-19 test kit.

4. Games specialist Diverse Interactive, is providing an interactive virtual experience for high net-worth events.

Malcolm Parry, Surrey Research Park CEO, said: "We have launched a range of initiatives, in conjunction with the University, to provide financial help and support to tenants. These include a Covid-19

Equity Investment Scheme for firms unable to raise investment in the current environment."

While some tenants are pivoting, others are thriving, including The Naked Pharmacy, which formulates and manufactures a range of natural food supplements. Following support during the Covid-19 lockdown period from the University, SetSquared Surrey and the team at SRP, online sales have increased 400 per cent.

Malcolm Parry added: "Now more than ever, companies need to utilise networks, collaborate and innovate in a nurturing, enterprise ecosystem."

For enquiries about office space at Surrey Research Park, please email: [sales@surrey.ac.uk](mailto:sales@surrey.ac.uk) or call 01483 579 693.



### DID YOU KNOW?

Surrey Research Park (SRP) has flexible letting arrangements, accommodating start-ups and University spin-outs through to multinationals.

On-site business incubator, SETSquared, is the global number one university business incubator.

SRP has a café, meeting rooms, picnic areas, parking and preferential rates for nearby Surrey Sports Park.

SRP tenants generate more than £1bn of economic activity annually.

## Surrey graduates achieve 96 per cent success rate for employment

The Graduate Outcomes survey 2020 shows 96 per cent of Surrey undergraduates are in work or further education after graduating\*, ranking Surrey graduates 12th in the UK for highly-skilled jobs compared to other higher education institutions.

Frances Gow, Head of Employability and Careers at Surrey, said: "This result reflects the culture of collaboration at Surrey. Employability of our graduates is a collective responsibility that stretches across all subjects, departments and professional services. We work together to provide students with every opportunity to develop their professional skills both within and outside the curriculum.

"Our mission is to develop talented and highly sought-after global students and graduates. We achieve this by delivering excellence in employability, career management skills and entrepreneurship support through practice-centred learning, placements and creating opportunities with local, national and international organisations."

In February, the University's Employability and Careers team also won the National Undergraduate Employability Award for the Best University Placement Service (Over 500 Placements) for the second year running.

Interested in offering a placement opportunity to a University of Surrey undergraduate? We want to hear from you! For further information, please email: [placements@surrey.ac.uk](mailto:placements@surrey.ac.uk)

\*UK domiciled, undergraduate full-time students, Graduate Outcomes survey 2020, HESA

## MBA student launches femtech enterprise in Guildford

Fiona Sweny, founder of Guildford-based femtech company Femora, completed a Master of Business Administration (MBA) at Surrey Business School. *Your University* caught up with Fiona to ask how the programme influenced her journey into enterprise.

### Tell us a little about Femora

Femora is a femtech company which I started while undertaking my MBA. It was my vision to create evidenced-based and trustworthy products and/or services for women to assist our navigation through life.

### What inspired you to start a femtech company?

Femora was born from my experiences in the British Army and subsequent career in healthcare - working in elite sport and performance both with England Rugby and at the Royal Ballet School. I was also inspired by my own experiences thus far - both as an individual and as a mother.

### What encouraged you to study an MBA?

I had reached a ceiling within my previous career and I was keen to explore a move away from the public and not-for-profit sector. I found that my skills and experience were not well-acknowledged outside of healthcare, and so to secure a sustainable career that matched my aspirations, I realised that I needed to arm myself with the appropriate knowledge at a level that is well regarded by most sectors.

### What encouraged you to start up your own business?

I had business ideas but I didn't know how to execute them, particularly as my background is within the public and not-for-profit sectors. I anticipated that I would end up in a more traditional role post-MBA, most likely within corporate healthcare. As I progressed, I gained a great deal of clarity about where my skills lie. The final push was the 'Problem Solving and Innovation' module, which guided us through



Femtech is a term applied to a category of software, products, diagnostics and services that use technology and focus on women's health.



Credit: Dean Whiting

the process of creativity, ideation and problem solving through to 'pitch day' in front of two venture capitalists, and I realised then that I was well-equipped to start my own business.

I was later awarded a Foundership from the University's Student Enterprise team, funded by Santander. These grants provide financial support for entrepreneurs as they build their business. I have since become a member of Guildford-based incubator, SETSquared Surrey, which has been invaluable.

### Were you able to put any of your learning into practice with Femora?

Absolutely. Every time I began a new MBA module, there were direct learnings that I could translate into Femora and for some modules I was able to use Femora as a case study for the assignments.

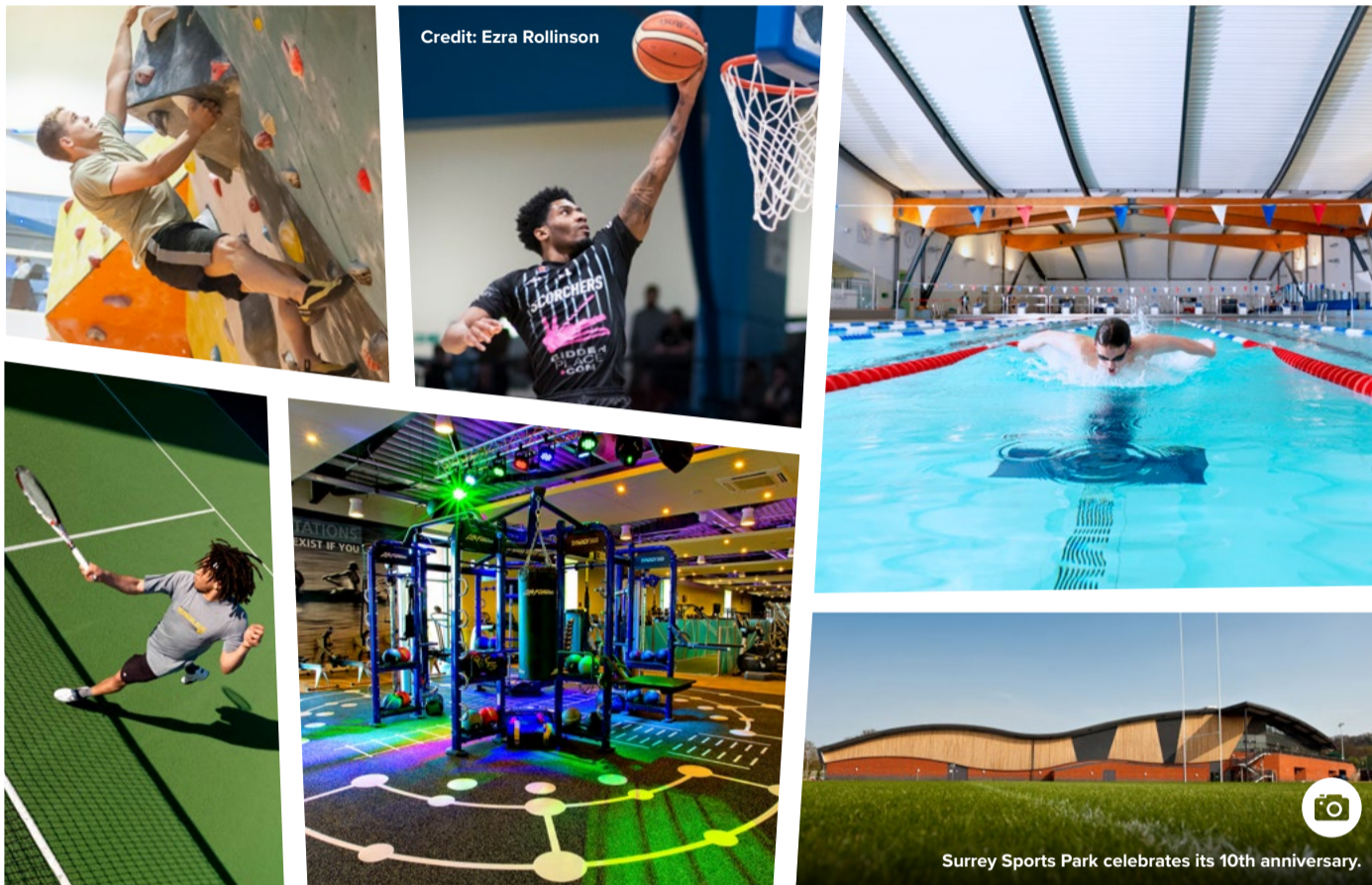
For more information about our MBA programme, please visit: [surrey.ac.uk/mba](http://surrey.ac.uk/mba)



 Sports

## Surrey Sports Park celebrates 10 years in Guildford

Built in 2010, Surrey Sports Park recently celebrated its tenth anniversary. Located on the University's Manor Park campus opposite the Royal Surrey County Hospital, the state-of-the-art sporting venue houses an Olympic-sized swimming pool, an arena with capacity for more than 1,000 visitors, a 120-station gym, outdoor sports space and pitches, a climbing wall, squash courts and exercise studios.



Credit: Ezra Rollinson



Credit: Getty Images

### Lighting up for people with disabilities

Surrey Sports Park is a proud supporter of the worldwide #PurpleLightUp movement, created by PurpleSpace to celebrate the economic contributions made by disabled people and to reject the notion that anyone is a financial burden on society.

The Park has recently improved wheelchair access, added Braille signage and installed handrails, as well as offering activities that encourage use of the facilities by people with disabilities.

Surrey Sports Park is open to members of the public as well as students of the University of Surrey and hosts various professional sports teams. The Park is proud to have hosted many prestigious international sporting events during its first decade here in Guildford, including the 2010 Women's Rugby World Cup, the Lacrosse World Cup, and it was even a training base for London 2012 Olympians. With world-class athletes and sporting scholars passing through its doors, 50,000+ games and 86,000+ members, it has been a whirlwind decade for the sports venue.

Reflecting on the tenth anniversary, Gavin Baker, Managing Director of Surrey Sports Park, said: "The vision for Surrey Sports Park was to create a world-class venue with standards and services to match that, which is accessible not only

for the high-performing athletes, but participants of all ages and abilities, and when I look back on these past ten years, I think all will agree that we have certainly achieved this.

"Even now in this current Covid-19 crisis, sport and physical activity is proving to be an essential part of people's lives. Once life returns to some form of normality, I look forward to another ten years of inspiring, educating and supporting students, staff and the local community in their sporting and physical aspirations."

“

The vision for Surrey Sports Park was to create a world-class venue with standards and services to match. ”

### See you on Instagram!

If you're not already following us on social media, the Surrey Sports Park Instagram account is full of great insight, hints and tips from our professional team to help you get the most out of your fitness routine.

There are lots of new features planned so now is a great time to join. Whether you're interested in post-workout recovery, nutrition, mastering a particular exercise or piece of equipment, or just getting to know our Personal Trainers, follow [@surreysportpark](#)



A member of Surrey Sports Park works out in the gym. Credit: Katie Sindle



Credit: Paul Stead

### Surrey Sports Park re-opens its doors

Following a period of closure during the Covid-19 lockdown, Surrey Sports Park re-opened its doors on 25 July. The Park has introduced a number of measures to reassure the community of its commitment to returning to activity in a safe, controlled and efficient manner.

For the most up-to-date information including opening hours, visit: [surreysportpark.co.uk](http://surreysportpark.co.uk)

WE WOULD LOVE TO HEAR FROM YOU

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Talk to us

If you have any questions, thoughts or suggestions about *Your University* or any of the articles you've read in this edition, please get in touch: [publicengagement@surrey.ac.uk](mailto:publicengagement@surrey.ac.uk)

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