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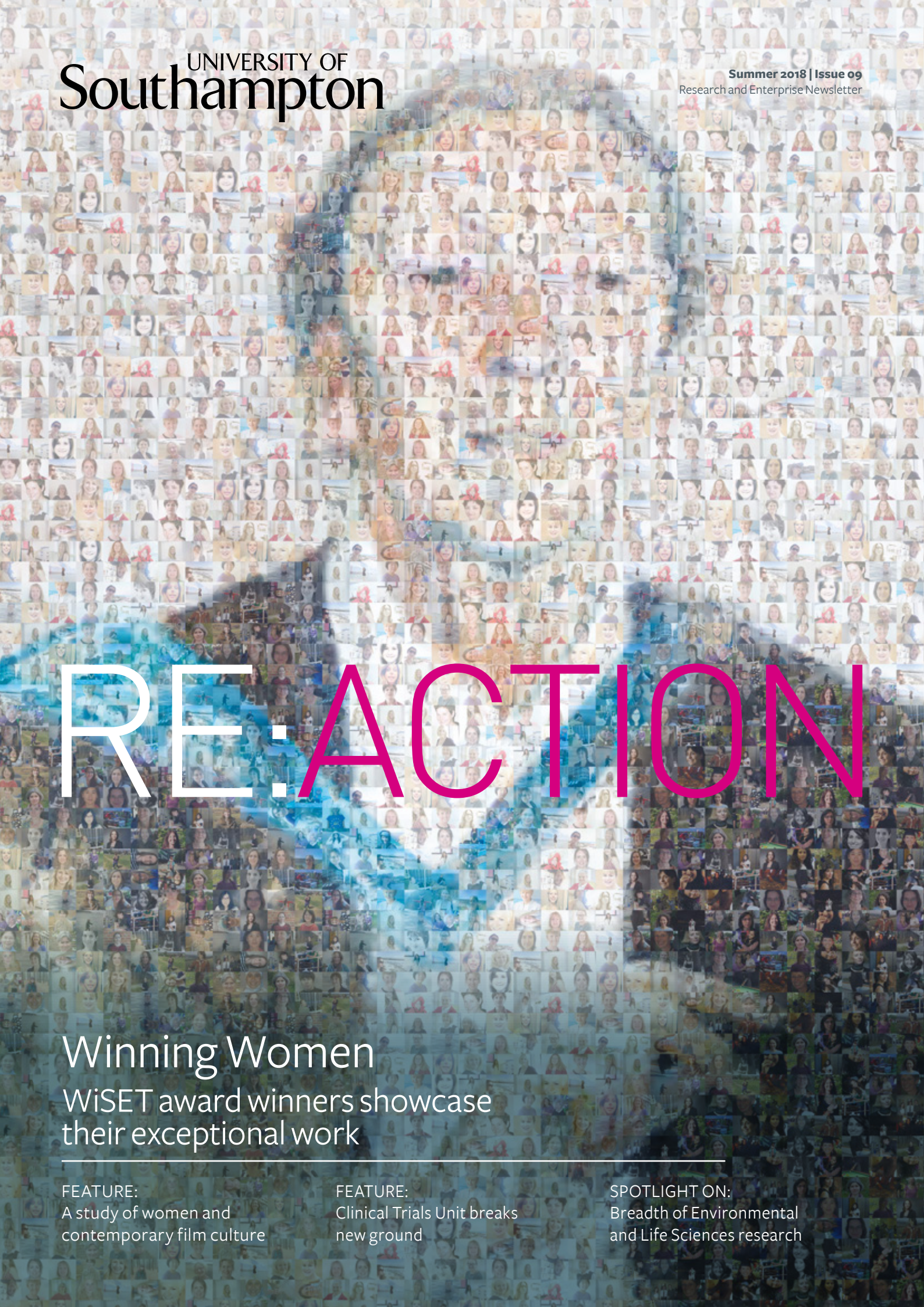
Research and Enterprise Newsletter



RE:ACTION

Winning Women

WiSET award winners showcase their exceptional work

FEATURE:
A study of women and contemporary film culture

FEATURE:
Clinical Trials Unit breaks new ground

SPOTLIGHT ON:
Breadth of Environmental and Life Sciences research

WELCOME TO RE:ACTION

Welcome to the Summer 2018 edition of Re:action. We have chosen to highlight the diverse roles of women in research as a theme connecting the feature articles in this issue. Subjects range from women in contemporary film culture, through the Women in Science, Engineering and Technology (WiSET) awards to profiles of women in our Faculty of Natural and Environmental Sciences and Faculty of Business, Law and Art.

I suspect that in a decade or so, and I would hope sooner, the important contributions that women make across all areas of our research and enterprise activities would require no additional emphasis. However, at this point in history it seems relevant to make a statement in this way, as there are still too many prejudices and biases at work which are often unconsciously applied.

More widely than the contribution of women to research, it should be clear to all of us that the quality of our research benefits from having a diverse research community. Diversity implies differences, and this is particularly valuable when it results in different ways of approaching a problem or research question. High quality research requires creativity and the ability to think differently.

Having a research community that encompasses members of different genders, ethnic backgrounds, religions (or non-religious belief systems), sexual preferences, abilities and disabilities results in higher quality research with more relevance to society. Many research studies have shown that diverse teams perform to a higher level than more homogeneous groups.

The articles featured in this issue of Re:action highlight one aspect of diversity, I look forward to future editions which celebrate others.

Finally, it is a great pleasure to welcome Dr. Lorna Colquhoun back to Southampton as the new Director of Research and Innovation Services. Lorna is an alumna of the University, having graduated with a PhD in neuroscience. This issue includes a profile of Lorna and the "new look" RIS that she leads. We wish Lorna a long and successful tenure in this role.

As ever, all feedback on Re:action is very much appreciated. Please enjoy the articles and information it contains.

Best wishes

Mark Spearing

Professor Mark Spearing
Vice-President (Research & Enterprise)

PLEASE SEND US YOUR FEEDBACK

We are keen to receive feedback about Re:action. If you have any ideas, comments or suggestions, please send them to
reaction@southampton.ac.uk

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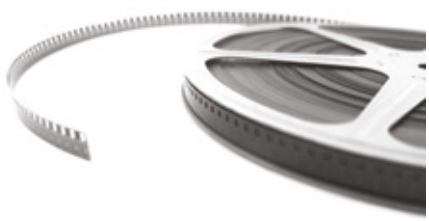

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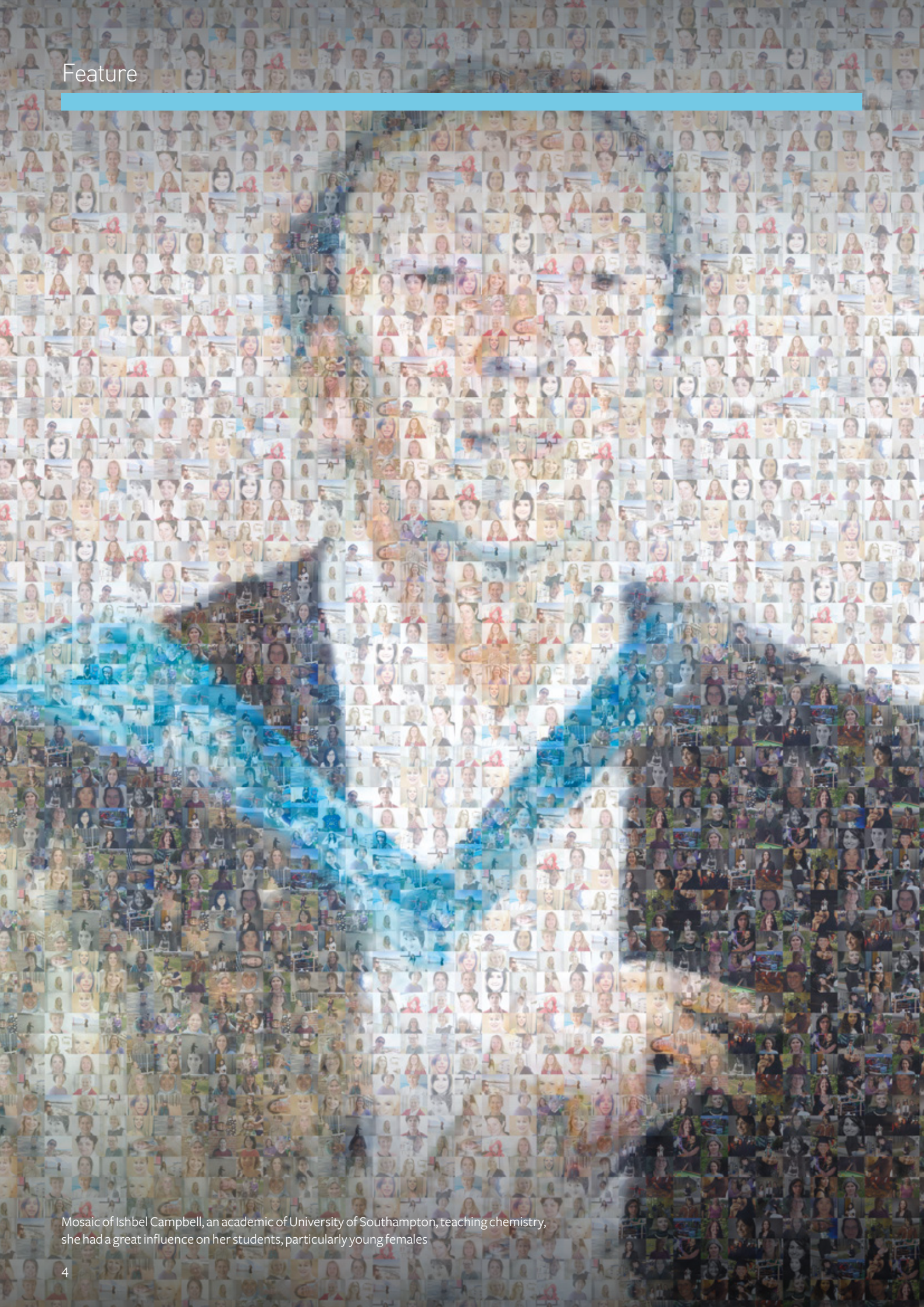


Mosaic of Ishbel Campbell, an academic of University of Southampton, teaching chemistry, she had a great influence on her students, particularly young females

For further information, visit:
www.wiset.soton.ac.uk/

WINNING WOMEN

From influencing policies and procedures to rewarding exceptional work and creating a space to network, WiSET has established itself as a strong and respected group.

For 16 years, WiSET (Women in Science, Engineering and Technology) has been championing women and enabling them to reach their full potential at Southampton.

Achievements over the years include reviewing the promotion process, raising the importance of the work/life balance, mentoring and running equality and diversity events.

Current chairman Dr Katrina Morgan, Research Fellow at the Optoelectronics Research Centre, explained: "The main objective of WiSET, in my opinion, is to support and encourage women to reach their full potential. We work closely with the central diversity team to shape policies at the University."

WiSET runs the annual Campbell Lecture, named after Ishbel Campbell (pictured left), which showcases women's careers and gender equality work, and the WiSET Awards, which were launched in 2016 and are growing every year. The awards recognise exceptional contributions of individuals across the University who have worked to raise the profile and participation of women in science, and made an outstanding contribution to supporting women in academia.

"The awards were started, both to credit those people properly for the wonderful work they have done and to share this with the wider University audience." said Katrina.

This year's WiSET Award winners are no exception. Both PhD students, Emma Osborne and Rebecca French are behind outstanding gains for women in the world of science.


Emma Osbourne

A STAR IN THE MAKING

Emma Osborne is destined for big things. Her day job is studying for her PhD in gravitational wave emission from neutron star mountains. But it is her life online, and her determination to make science accessible and to be a female role model that is setting her up for stardom. With tens of thousands of followers on her social media channels, Emma is making a big name for herself.

Emma even has a slot at this summer's Bestival music festival in Dorset, where she'll be giving a whistle-stop tour of gravitational waves and then talking about how to time travel. "I'm trying to put science in places you wouldn't usually expect to find it," she said.

It was in 2016 when Emma won the online competition 'I'm a Scientist, Get Me Out of Here!' that things started to take off. With her £500 winnings she set up her YouTube channel, The Extraordinary Universe, where she produces short videos explaining concepts from Einstein's Theory of Relativity. The channel went live in April 2017 and her first video has had more than 70,000 views.

Added to this was the announcement in February 2016 that the LIGO Scientific Collaboration had detected the first gravitational wave signal, which came from two colliding black holes. People's interest in the topic was piqued.

Since then, Emma's Instagram account has gone viral – she currently has 37,000 followers. She uses Instagram to share her PhD journey through images of physics and themed chalkboards.

Emma is now being presented with lots of opportunities for collaboration – with both scientists and non-scientists.

Universe Today, an online magazine in the US, invited Emma to take over its Instagram account for a day. She posted some of her most popular images and spoke about her research – and in the process gained 5,000 followers herself.

She has also recently worked with British jewellery designers Tatty Devine, who interviewed her for their 'Women We Watch' series online.

But despite her huge following, Emma is resisting monetising her online profile. "To engage people with science is hard enough, so I don't want to put any barriers up by having advertising on my channels," she said.

Explaining her inspiration and drive, Emma said: "I used to love TV programmes like How 2 and The Sky at Night, but I used to think 'I could do that'. I also felt a little bit disgruntled that there weren't any female role models – that's been a big driver for me.

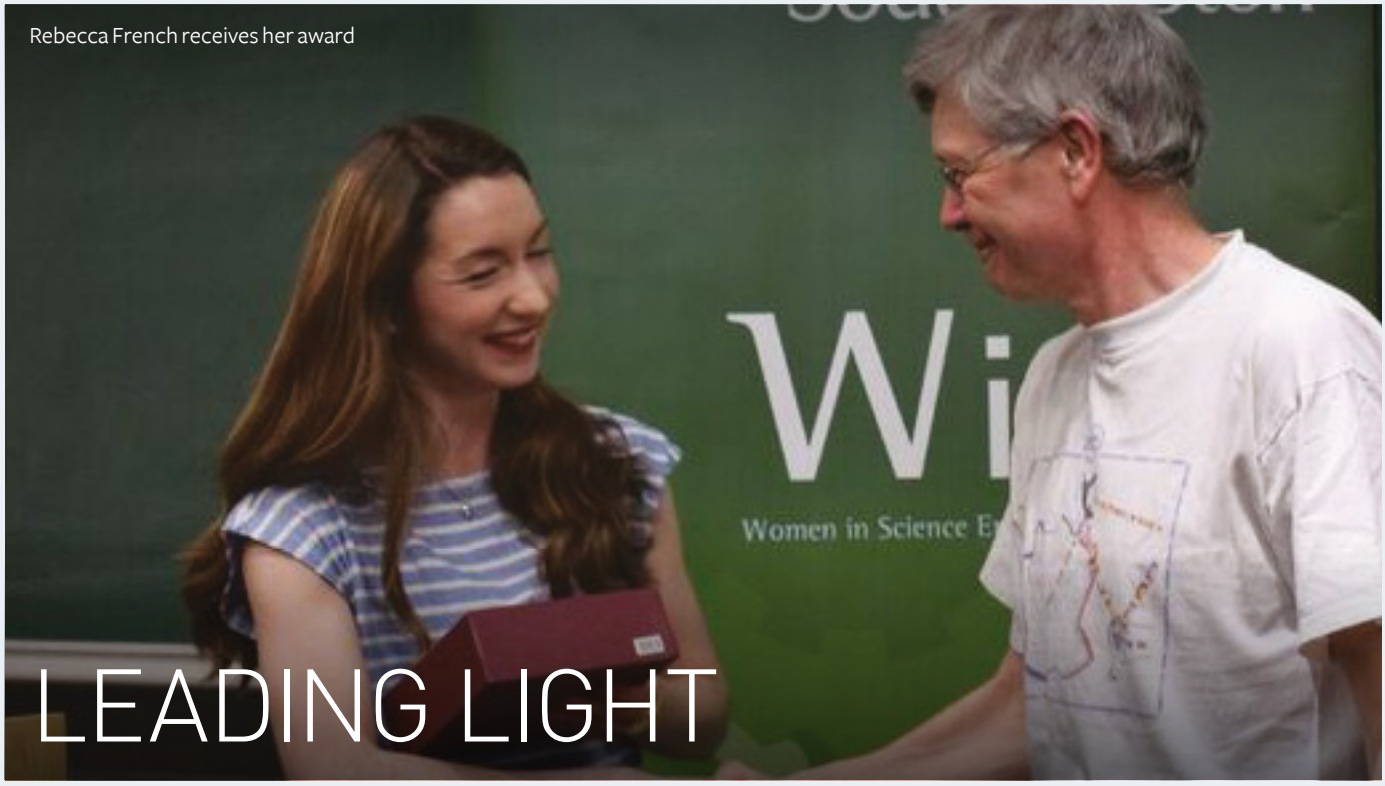
"I've also been driven by the fact that I come from Sudbury, a small town in the middle of nowhere, and from a family where myself and my brother were the first people to go to university, so I always think 'if I can do it, then anyone can'."

She has won this success without any formal communications training. "People say they love the way I explain things," said Emma. "My audience base is very broad, with experts and non-experts, and also quite a lot of younger people especially GCSE students. I think anyone can understand physics, it just has to be explained in the right way."

So where does she want to take her success. "Ultimately, I'd like to get on TV and reach larger audiences," said Emma.

Watch this space!

For further information, visit:
www.wiset.soton.ac.uk/



Rebecca French receives her award

LEADING LIGHT

Rebecca French, a Quantum Light and Matter student, studying for a PhD in imaging and sensing, is using her founding position and co-chairship of the Women's Physics Network (WPN) to shine a light on female members of Physics and Astronomy and across the University.

Rebecca's research combines the worlds of experimental physics, using the interaction of light with opaque materials like frosted glass or sugar cubes and computational imaging, to develop new astronomy sensors which help measure the chemical composition of stars.

"I went to an all-girls school growing up, where it was never suggested that women couldn't have successful and happy careers in science. So it came as a bit of a shock to me when I chose to pursue physics, just how few women there were at the conferences and events I attended and in senior roles", says Rebecca.

> "It is rewarding to know I am part of such an important network in supporting the next generation of women in science."

Started in 2014, the role of the WPN is to bring together women in physics, support the career development of women in science and to champion gender equality and diversity in Science, Technology, Engineering and Maths at the University.

The WPN, which won a VC award in 2017 for Equality, Diversity and Inclusion, is a network spanning both the academic and undergraduate populations. It hosts events throughout the year, including talks, public engagement and outreach activities, and social events, which are open to all at the University.

Rebecca is extremely passionate about the power of the network for girls and women at varying career stages: "Our aim is to have as broad a reach as possible with our events and activities. We invite researchers to talk about their research and career paths, and our outreach programme uses the WISE (Women into Science & Engineering) campaign's 'People Like Me' resources to encourage young girls and their mothers to relate to careers in science, which we promote at annual University events such as Stargazing Live and the Science and Engineering Festival.

Over the last two years we have held a "Scientist Treasure Hunt" to highlight the work of women scientists at the University, from undergraduates to academic staff, which was included in this year's Pint of Science Festival in Southampton.

"As I come to the end of my PhD and start to think about the next steps in my career, it is rewarding to know I am part of such an important network in supporting the next generation of women in science."

WHO IS 'CALLING THE SHOTS'?

A first of its kind in the UK - Calling the Shots: Women and Contemporary Film Culture, 2000-2015, is a half-a-million-pound four year project that is researching and writing the contemporary history of women working in the UK film industry.

The team: Sarah Louise Smyth, Dr Shelley Cobb, Professor Linda Ruth Williams, Ania Ostrowska and Natalie Wreyford

Calling the Shots is using a unique combination of qualitative and quantitative methods to record data and information that will set a benchmark for film culture research in the future.

One of the key remits of the project is to produce reports about the number of women working in key roles in the film industry, using data provided by the British Film Institute (BFI). There are six 'behind the scenes' filmmaking roles which are director, writer, cinematographer, editor, producer and executive producer. The project's research fellow Dr Natalie Wreyford uses the raw data from the BFI to find all the personnel working in these roles, identifying their gender, race and national identity to produce statistical reports.

Three comprehensive reports have been produced and widely reported on in the media. These include the percentage of women across all six roles for the year 2015, the percentage of women directors and cinematographers for the years 2003-2015, and a comparison of the 2015 data with data on the same roles in the top-grossing films released in America. On the 3,452 British qualifying films in production from 2003 to 2015, women made up only 17% of directors and only 7% of all cinematographers.

More than half (56%) of all British films in production during 2015 had no women or only one in any of the six key roles, compared with only 30% of the top grossing films in America.

The reports are shared with the BFI and other key players in the industry, with the goal of having an impact on equality and diversity in British filmmaking. The Principal Investigator, Dr Shelley Cobb, Associate Professor of Film at the University of Southampton, explains "We often encounter assumptions that the UK film industry must be better at gender equality than Hollywood, but our data clearly shows that this is not the case; in some ways the British industry is worse.
It's going to take more than just a few equality and diversity programmes for real change to happen."

In addition to data reports, a vital 'oral history' is being collected by Dr Cobb and her Co-investigator Prof Linda Ruth Williams of the University of Exeter. They are recording individual interviews with 50 women in the six key filmmaking roles. The interviews will not only inform the research outputs of the project, they will also build a foundation for the history of women's work in the UK film industry during the early twenty-first century. At the end of the grant the interviews will be available to future scholars through the BECTU History Project archive.

BECTU is the UK's media and entertainment trade union and is one several vital external partners making this research possible. It is funded by the Arts and Humanities Research Council (AHRC), and supported by Women in Film and Television UK. Regional arts institutions like Harbour Lights Cinema and the Shetland Film Festival have played a key role as well, supporting the research and its impact activities.

Calling the Shots also funds two PhD students producing groundbreaking work; Sarah Louise Smyth is investigating the use of space and place by British women directors, and Ania Ostrowska is researching British women documentarians and their work in both film and television.

Dr Shelley Cobb and Linda Ruth Williams interviewing Xialou Guo

UNDERSTANDING YOUR COPY RIGHTS

Do you know who owns the copyright to the photos you put on your Instagram? Or the videos you share on YouTube? It may not seem important, but the copyright laws regarding immaterial goods such as these and music, paintings and so on are undergoing serious discussions in the EU Parliament and the Council, and with the added element of Brexit, this could have consequences for us all.

Dr Eleonora Rosati, Associate Professor in Intellectual Property Law

Dr Eleonora Rosati, Associate Professor in Intellectual Property Law, is an international lead in this area of law and research. Here she explains a key area of her research and the potential impact on all of us.

Hot copyright issues

"All countries have different copyright laws, but in recent years there has been a decrease in the variations, particularly across EU states. A key area being discussed by the EU Parliament currently is the role of platforms such as YouTube and where key responsibility lies for the content uploaded to them.

"Anything shared on social media in terms of a photo or a video may be protected by copyright, but few people know or understand who owns that copyright and why that is important. If I share a photo taken by my friend on my Facebook page, the person that took that picture is still the owner of the copyright, not me and not Facebook. So when that image is then harvested by a third party such as a group of researchers who wish to detect fashion trends by looking at images shared online, whose responsibility is it to protect its usage? Mine because I shared it? My friend who took it and owns the copyright? Or Facebook, because it is the platform that made the sharing and the harvesting possible?

"In addition to issues connected to platforms, mining large quantities of content – including content shared through social media - to extract information and detect patterns and trends has also become commonplace. These practices are generally known as text and data mining, and they might involve copyright issues. I have been researching the complexities of these questions and the possible answers and solutions for the EU. Information obtained through mining techniques can be used for research and commercial purposes alike, and it's unclear what types of uses should be allowed without permission from relevant rightholders.

"Some initial conclusions around this for my research have been summed up in a technical briefing prepared at the request of the EU Parliament. I think that, given the potential and aim of text and data mining techniques, the EU should legislate so not to restrict the range of permitted uses of copyright content for text and data mining purposes."

Dr Rosati is a regular contributor to the IP Kat Blog, which brings together the IP community in the UK and across Europe.

For further information, visit:
www.southampton.ac.uk/ris

NEW ERA DAWNS FOR RESEARCH AND INNOVATION SERVICES

As a key enabler of the research and enterprise endeavour at Southampton, Research and Innovation Services (RIS) plays a major role in helping to deliver the university's strategy in this area. A new structure and new way of working was launched in February this year.

The department has a new director at its helm, and Dr Lorna Colquhoun is wasting no time in working with the RIS team to ensure it is both responsive to, and influential on, the internal and external research and enterprise environments.

Lorna joins the department from University of Bristol, where she was most recently Director of Enterprise, following eight years leading research development. "The breadth of support that RIS offers to our academic community and partner professional service departments, means we are involved at all stages of the research life cycle. This requires us to work in genuine partnership with our colleagues across the University and beyond, to deliver the efficient and smooth service needed to achieve the world leading research and enterprise we are known for."

Arranged now in six teams and co-located to build sector-specific expertise as well as benefit cross-team working, the 70 professionals within RIS facilitate academic collaborations, industrial interaction, knowledge exchange and impact development including commercialisation of research. It also provides support to academics on research funding opportunities, preparing strong bids and negotiating research contracts.

"My role as director is not only to lead the department through the complex research and enterprise space, to ensure we're providing the top level of service required, but also to make sure the University has a place on the national stage, setting the agenda for research in the UK."

Dr Lorna Colquhoun, Director of RIS

For further information, visit:
www.southampton.ac.uk/ctu

TRAILBLAZING TRIALS UNIT

The Southampton Clinical Trials Unit (SCTU) is breaking new ground across the medical sphere – and not just in cancer.

The SCTU moved into new offices within the Centre for Cancer Immunology (CCI) at Southampton General Hospital in March thanks to donations from a £25M fundraising campaign, with some donors specifically donating to the building of SCTU offices. The Unit has hit the headlines frequently over the last year for a number of its innovative trials.

But behind the headlines, a wide range of clinical trials are being managed and developed by the SCTU – trials not only concerning cancer treatment, but a huge range of other conditions too. The SCTU has also been awarded a renewal of its National Institute for Health Research (NIHR) CTU Support Funding for the next three years, to develop NIHR funded trials in partnership with researchers within the Faculty of Medicine, University Hospital Southampton NHS Foundation Trust and wider afield across the UK. These include trials in primary care (including UoS Network on Antimicrobial Resistance and Infection Prevention trials), respiratory (with the NIHR Biomedical Research Centre), cardiovascular, liver disease, surgery and supportive care.

Professor Gareth Griffiths, Director of SCTU and Professor of Southampton Clinical Trials Unit and Professor of Clinical Trials explained: "Since its creation in 2007 SCTU has gone from strength to strength. With the support of the Faculty of Medicine and University Hospital Southampton NHS Foundation Trust we have worked with researchers to develop and run clinical trials of new treatments, drug and non-drug, that can have a real impact for our future patients in the NHS. With our new CCI offices and increased CR UK core funding we will ramp up our activity in cancer, building on the existing 37 cancer trials we have done to date and increasing our international impact and collaboration. We have developed 19 non-cancer studies to date, and with the plan to find and occupy a SCTU non-cancer office we expect to expand our activity in a number of areas that will have a real benefit for future patients in both primary and secondary care."

Diana Eccles, Professor of Cancer Genetics and Head of Cancer Sciences Academic Unit is the newly appointed Dean of the Faculty of Medicine, she comments: "Having a thriving academic Clinical Trials Unit embedded at the hospital site delivering investigator-lead, cutting edge clinical trials gives Southampton such an edge compared to many other centres. Here we can really deliver translational research that changes lives by developing and evidencing the best treatment for a range of conditions with a strong focus in cancer immunology. The close partnership between the University and the Trust is fundamental to our ability to deliver particularly early phase clinical trials."

Christine McGrath, Director of Research and Development at Southampton General, says "As a major national centre of clinical academic excellence we see research as an integral part of our mission to understand more about the conditions we treat and constantly improve our healthcare services. Our strong research partnership with the University of Southampton, and expertise in our world-leading Clinical Trials Unit, is enabling us to realise the research potential across our hospital for the benefit of our patients, staff and the public. Our aspiration is that every clinical area will be engaged in high-quality research and everyone should have the opportunity to be part of a research study."

RiVa and SAFA are examples of two very different clinical trials that are currently being managed by SCTU.

The SAFA trial in collaboration with the Primary Care and Population Sciences Unit, Faculty of Medicine and sponsored by the University.

Many adults live with acne for years, and the most common treatment is antibiotics. But the prolific use of antibiotics and the problem of antibiotic resistance means that this is far from ideal. The SAFA (Spironolactone for Adult Female Acne) study is seeking to find a solution.

Dr Miriam Santer, GP and Associate Professor in Primary Care Research, is the Chief Investigator for the study. She said: "Spironolactone is a pill that is widely used for treating high blood pressure. Some dermatologists use it to treat acne, especially in the United States, but there have hardly been any trials conducted around this, and the biggest trial to date only involved 50 participants. So there is very little evidence."

Spironolactone helps to reduce blood pressure but it also has an impact on hormones. It's the hormonal effect that potentially makes it useful for treating acne.

Miriam, whose research has focused on skin conditions and helping people to manage them, has previously led trials on gout, antibiotics, acne and cellulitis.

The SAFA trial is being commissioned by the National Institute for Health Research and participants will be women over the age of 18. They will be randomised so some will take spironolactone and others will take a placebo.

The trial is in the set-up stage and recruitment will take place from October. Participants will be recruited from Southampton and Portsmouth hospitals and through GP practices around the country. Recruitment will take place over 18 months, with each participant taking the drug or placebo for six months.

Fay Chinnery, Trial Manager based at SCTU, explained that 434 participants are needed – a number set by statisticians to ensure the study provides a pre-defined level of accuracy and certainty."It will be a patient-reported outcome via a questionnaire, measuring the differences participants observe during the six months," said Fay.

The results from the study will be reported in three to four years' time, and forms part of the University's NAMRIP (Network on Antimicrobial Resistance and Infection Prevention trials) trial portfolio.

Dr Miriam Santer and Fay Chinnery from the SAFA trial team

The RiVa trial in collaboration with the Cancer Sciences Unit and Centre of Cancer Immunology, Faculty of Medicine and sponsored by University Hospital Southampton NHS Foundation Trust. This £1 million early-phase clinical trial is testing a groundbreaking new method of treatment for lymphoma (cancer of the lymph glands) that would transform the lives of patients undergoing treatment.

RiVa is looking into a new combination of two drugs to treat lymphoma – rituximab, which targets CD20-expressing cancer cells, and varlilumab, which enhances the immune system's anti-cancer activity by targeting CD27.

Dr Sean Lim, Associate Professor and Honorary Consultant in Haematological Oncology, is RiVa's Chief Investigator. She said: "Rituximab is already commonly in use. The trial is asking whether the addition of varlilumab to rituximab will make rituximab work better in patients who have B cell malignancies.

"Chemotherapy was and continues to be one of the main treatment options for lymphoma. But the success rates for this approach peaked in the 1970s and we were failing to improve cure rates until the introduction of rituximab in the late 1990s. And now, we are moving into a new generation of antibodies which aims to improve the immune system's ability to kill cancer cells."

RiVa is a particularly standout trial because the whole idea was conceived in Southampton – just two-and-a-half years ago. The average time from bench to patient for a drugs trial is 17 years.

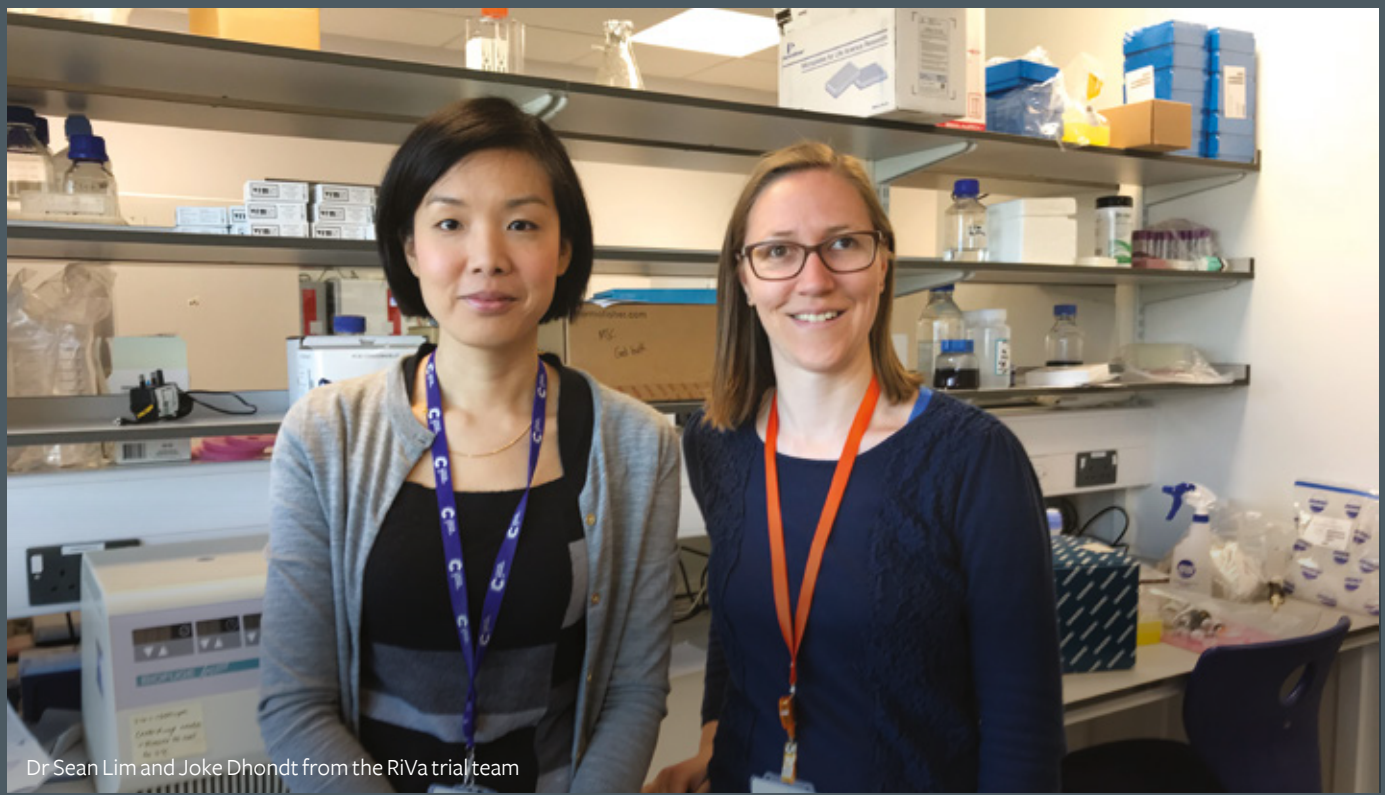
The trial, funded by Cancer Research UK and the drug manufacturer Celldex Therapeutics, is in its early stages.

Two out of a total of 40 patients have so far been recruited. The trial is being conducted on patients who have been treated for lymphoma but the cancer has returned or is not responsive to treatment. Patients are being randomised into two groups, with one receiving more regular doses of varlilumab than the other.

"We are also asking for needle biopsies from patients before and after they have the treatment," added Sean. "A lot of trials don't do this, because it involves asking the patient to have an additional biopsy, but we know from experience that changes in the actual cancer is not always represented by changes in the blood. This information is really important in helping us to understand exactly how the antibodies are working, how the immune system is responding and what we can do to make the antibodies work better." These biopsy samples will also be analysed locally at the WISH lab in Southampton.

The trial is being managed by Joke Dhondt at SCTU, whose role is to liaise between the four hospitals taking part in the trial (in Southampton, Oxford, Manchester and Plymouth), as well as manage all regulatory and ethical requirements, plus all paperwork around the trial and the data it collects.

The results from RiVa are expected to be reported in 2022 and could lead to larger trials at SCTU in both lymphoma and other cancers.



Dr Sean Lim and Joke Dhondt from the RiVa trial team

For further information, visit:
www.southampton.ac.uk/about

FACULTY FOCUS: NATURAL AND ENVIRONMENTAL SCIENCES

As the University gears up for its move from eight to five Faculties this summer, the Dean of the Faculty of Natural and Environmental Sciences (FNES), Rachel Mills, reflects on progress over the past eight years.

Rachel is proud of the work that has been going on in all areas to champion diversity and equality and the demonstrable progress in career progression for both women and men across the Faculty.

"When I took on the role of Dean in 2016, I knew that one of our priorities for the Faculty was equality and diversity. With an immense amount of support from colleagues in each of our Departments, we have been able to dedicate time and resource to mentoring, supporting and encouraging both women and men to achieve great things for FNES and the wider disciplines" says Rachel.

"All of the hard work and progress towards our overall equality and diversity plan is reflected in our Athena Swan Awards. Athena Swan recognises advancement of gender equality: representation, progression and success for all. Established in 2005, its aim is to encourage and recognise commitment to advancing the careers of women in science, technology, engineering, maths and medicine in higher education and research. We have recently renewed the Silver Award for Chemistry and the Bronze Award for Ocean and Earth Science, and Biological Sciences achieved a Silver Award in 2017."

"Since the inception of the Faculty in 2010 we have seen a sustained positive shift in the proportion of female research and academic staff at all levels in each of our three Departments. We now have women in senior leadership positions right across the Faculty with a total of eleven female professors compared with only two in 2010. We have remarkable female colleagues at all levels involved in innovative and exciting projects, three of whom we have profiled below to demonstrate the impactful research going on within FNES."

"As we move to our new Faculty of Environmental and Life Sciences this summer, I look forward to continuing and extending this approach of championing individuals and ensuring we have the right things in place to ensure that all colleagues and students are treated equitably.

Claire Clarkin, Associate Professor in Developmental and Skeletal Biology (Biological Sciences) is working in an expanding area of musculoskeletal research which today remains poorly understood due to the challenges associated with analysing the subject matter.

She has a specific interest in how blood vessels control early bone formation in developing embryos and also their contribution to bone diseases as we age. The blood vessels in bone appear to be unique in structure and are deeply embedded within the bone mineral, requiring specialized imaging to study them. Claire has established unique collaborations with colleagues in medicine, engineering and chemistry in order to explore a variety of techniques and equipment in her research to better study the bone vasculature. As abnormal blood vessels have been linked to many diseases in the body, including cancer, Claire is particularly interested in their contribution to degenerative bone diseases such as osteoporosis.

Claire is working closely with charities such as Arthritis UK and the Paget's Association, using her research to develop new drugs that will for the first time attempt to target blood vessels to improve bone health, strength and reduce fracture risk. Her collaborative partnerships highlight a fascinating combination of engineering and medical research which in coming together are driving advances in musculoskeletal health.

Professor Gill Reid, Head of Chemistry and Professor of Inorganic Chemistry within FNES, is a passionate champion of people and this is reflected in her leadership of the Chemistry department.

'I am incredibly proud to be the Head of Chemistry, it is such a fantastic area to be working in and one that, despite the challenging external funding environment, has a flourishing research base."

'My ethos in this role has always been one of inclusion and recognition of contributions. We have a strong focus on collaboration, not just within the department, but also across the wider university and beyond. We simply couldn't do the work we do without bringing people together to work effectively. It is also a lot of fun!"

'Education and outreach have always been priorities for me in Chemistry, working with young students and researchers. There is no better reward than mentoring a student or early career researcher, witnessing them developing their Chemistry skills and seeing the delight when they are successful in their research area of choice. In Chemistry we are also always keen to ensure that current research features strongly within our undergraduate teaching. This allows students to gain experience and contribute to knowledge at the cutting-edge of the discipline. Each year there are examples of research projects that result in our undergraduates featuring as co-authors on papers and contributing directly to the advancement of our work.'

Gill herself is still very much involved in some cutting-edge research projects, particularly ones focused on fundamental studies of new ligand types and exploring the influence of new metal-ligand combinations on the properties and reactivity of the new molecules. This is important in developing tailored precursor complexes for depositing inorganic semiconductor materials using both chemical vapour deposition and electrodeposition, as well as developing new metal fluoride scaffolds for medical imaging applications using fluorine-18 positron emission tomography. Collaborations both within the University and externally feature strongly in all of this work.

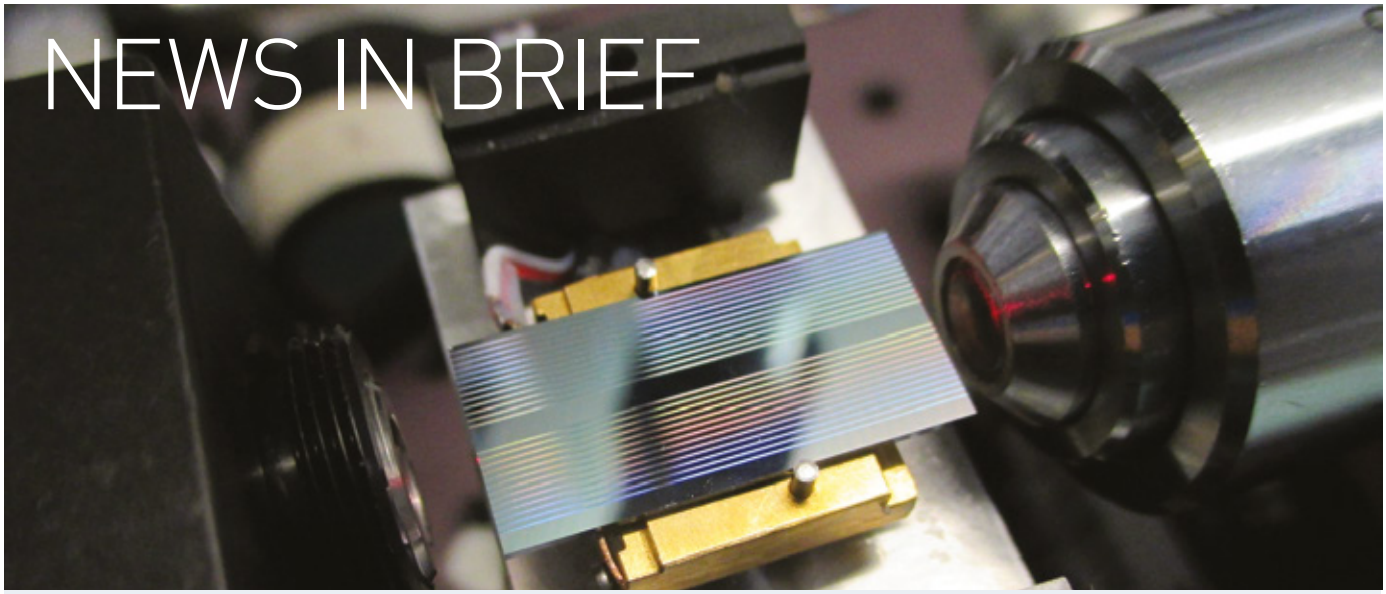
Gill continues, 'With an imminent faculty restructure, we will be seeking to maximise the benefits of Chemistry's position as an enabling and central science, ensuring we make new connections across new departments and maintain the strong ones we already have to deliver further success both in education and research. It is an exciting time for everyone, we are what we are because of the many combinations of people working together.'

Dr Phyllis Lam is Associate Professor in Microbial Biogeochemistry within Ocean and Earth Science (OES) at the Waterfront Campus (National Oceanography Centre Southampton).

The highly specialised area of research, in which Dr Lam is a world leader, brings together molecular biological and chemical analyses to study the roles of microorganisms in the cycling of carbon and essential nutrients at a global scale, particularly within the oceans. Her research has taken her around the world to study the sea in places ranging from deep-sea hot vents and cold seeps at thousands of metres deep, to ocean dead zones in subtropical Atlantic, Indian and Pacific, to clear blue water near Bermuda, as well as frigid cold water in the Southern Ocean.

"Tiny they may seem, microorganisms are the key drivers of many fundamental reactions that govern ocean health and global climate, including the production and consumption of greenhouse gases like CO_2, methane and nitrous oxide. One current focus of mine is the 'twilight ocean', the waters below 100 metres, where many material turnovers are taking place. How fast these reactions are occurring relative to each other can impact the ocean's ability to absorb greenhouse gases. I am looking into how microorganisms are facilitating or impeding these reactions, and how these may change across seasons and locations."

Dr Lam is also about to embark on a new area of applied research to investigate the possible use of microbes in facilitating CO_2 removal by rocks and minerals. Working collaboratively with geochemists within OES – Prof. Rachael James, Dr Juerg Matter and Prof. Damon Teagle – on a joint project involving three other universities and the mining industry, they are looking into the how mining waste can be utilised to absorb CO_2 from the atmosphere.



NEWS IN BRIEF

COVESION KTP AWARDED CERTIFICATE OF EXCELLENCE

The recently completed Knowledge Transfer Project (KTP) between Covesion Ltd and Southampton academics Dr Corin Gawith and Dr James Gates from the Optoelectronics Research Centre has been awarded the highest grading from Innovate UK for its final report, as well as a Certificate of Excellence.

The project focused on the development and manufacture of laser crystals for use in optical communication systems and quantum cryptography. Innovate UK were highly impressed by the impact which the academic team created, both in financial terms for Covesion and with regards to the advancement of knowledge, and quantum cryptography. Innovate UK were highly impressed by the impact which the academic team created, both in financial terms for Covesion and with regards to the advancement of knowledge, the addition of Associate, Dr Lewis Carpenter was also commended. The team are aiming to continue their success through another recently awarded third KTP worth £160k over two years, which seeks to develop new photonics products for changing the colour of lasers.

For more information on KTPs please contact **p.e.jewell@soton.ac.uk.**

CRUK PIONEER AWARD

A new study is to investigate how and why an amino acid molecule, produced by solid tumours, stops the immune system from finding and destroying cancer.

New cancer immunotherapy drugs are having an impressive degree of success, but some are only benefiting a small number of patients and can have side effects. A possible reason for this is that tumors evade the immune system by suppressing it.

Dr Yury Bogdanov, who is based at the new Centre for Cancer Immunology, received a CRUK Pioneer Award worth £200,000, which will allow his team to analyze the impact of the aminobutyric acid (GABA) that is found in cancers of the colon, gastric area, pancreas, ovary and breast.

GABA is a major inhibitory signalling molecule in the central nervous system. A variety of drugs modulating GABAergic signalling has been approved for clinical use to treat neurological conditions. New data also point to GABA as a potential suppressor of the immune system and is believed to be produced by some tumours to protect them from attack.

The Southampton study aims to determine exactly where GABA is produced in tumours, where it targets the immune system and how it suppresses it. Dr Bogdanov and his team will use this information to re-purpose or create novel drugs to target it.

Dr Yury Bogdanov

LAUNCH OF ERGO II

A staged roll out of the University's upgraded research ethics approvals system, ERGO II, has been successfully completed. The bespoke system was built by iSolutions in collaboration with the Research Integrity and Governance Team with support from the academic community.

ERGO II improves upon the previous system to provide a complete ethics and governance tool, with intuitive smart questions that are relevant, proportionate and adaptable. Major consideration was also given to the capacity and capability of the system to ensure it has the ability to adapt with the changing landscape of research obligations and to be inclusive of the expanding areas of research we need to capture for ethics review.

Professor Mark Spearing, Vice President Research and Enterprise, has championed the project from the start, "This new system was required to ensure our academics had a user friendly and intuitive piece of software. We listened to their needs from the offset and those were fed directly to the developers to ensure we delivered as close to what they required as possible. The collegiality demonstrated between the teams creating the system was second to none and the statistics for ERGO II speak for themselves with almost 2000 submissions processed through in the first six months."

Attendees at Boldrewood for the Nesta Flying High all-cities meeting

DRONE RESEARCH FLYING HIGH

The University is leading on a Nesta funded innovation project, Flying High. The project will champion and test drone use in city environments with a view to changing negative public attitudes, and leading in the development and exploitation of this technology.

The university is working with Southampton City Council and has jointly developed a vision for drone use in the greater Southampton area, the prime one of which is to convey urgent medical supplies from Southampton General Hospital to St Mary's Hospital on the Isle of Wight.

Professor Jim Scanlan's team in the Faculty of Engineering and Environment is working with Innovation Foundation NESTA, on the programme for use case trials which would be part of Phase Two of Flying High. The team have also been working with Nesta on the drafting of a drones exploitation bid to the Industrial Strategy Challenge Fund.

This Nesta activity is complementary to the large EPSRC multi-university project on derisking drone use for societal benefit, CASCADE, that the University is leading.

UNIVERSITY OF SOUTHAMPTON TO LEAD RESEARCH INTO NEXT GENERATION OF ELECTRONICS

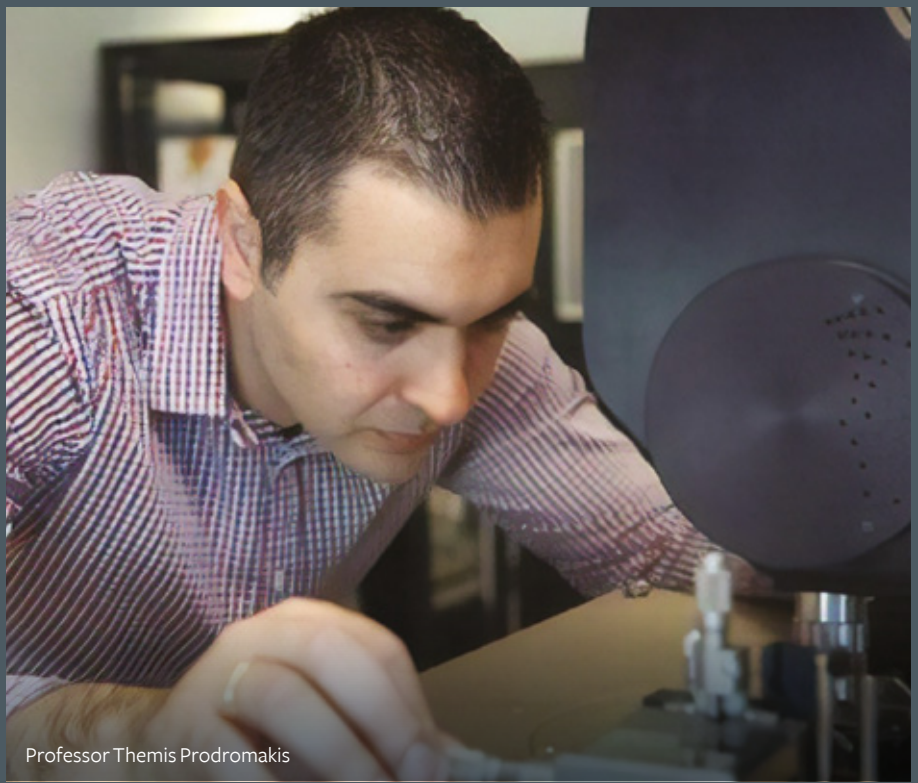
The University of Southampton has been awarded a multi-million pound programme to lead the development of innovative nanotechnology that could open the door to a new generation of electronics.

Professor Themis Prodromakis is the principal investigator of the predominantly Engineering and Physical Sciences Research Council (EPSRC) funded programme, which, along with industrial contributions, exceeds £11million.

Working with Imperial College London and the University of Manchester, as well as industrial partners, the project will centre on memristors and their ability to enable electronics systems to be configured with increased capability, as opposed to transistors.

Memristors could hold the key to a new era in electronics, being both smaller and simpler in form than transistors, low-energy, and with the ability to retain data by 'remembering' the amount of charge that has passed through them – potentially resulting in computers that switch on and off instantly and never forget.

Traditionally, the processing of data in electronics has relied on integrated circuits (chips) featuring vast numbers of transistors and while the size of transistors has reduced to meet the increasing demands of technology, they are now reaching their physical limit.



Professor Themis Prodromakis

Professor Prodromakis said: "Memristor technologies bring great prospects for next-generation chips, which need to be highly reconfigurable yet affordable, scalable and energy-efficient, not to mention secure.

"To achieve this, we have assembled some of the UK's best academics and industrialists for developing the core technology as well as the required tools for demonstrating the benefits of the technology in real-working services and products."

The University of Southampton has previously demonstrated a new memristor technology that can store up to 128 discernible memory states per switch, almost four times more than previously reported.

Professor Prodromakis added: "For decades we have followed the pattern that computers should have separate processor and memory units, but these are now struggling to cope with the masses of data in the public domain. Soon the span of functionality in future Internet of Things (IoT) systems will be much wider than what we know from today's smartphones, tablets or smart watches."

"This unique programme of activities will allow us to develop reconfigurable electronic systems that are at the forefront of innovation through being embedded almost everywhere in our physical world; within vehicles and infrastructure Professor Themis Prodromakis or even within the human body."

HUMANITIES FELLOWSHIP HAUL

Humanities is celebrating a haul of exciting fellowships across the faculty.

Dr Jonathan Way, Associate Professor of Philosophy, has been awarded a Fellowship to spend a year at the Center for Ethics and Public Affairs at the Murphy Institute, based at Tulane University in the USA. This prestigious award is intended "to support an outstanding faculty whose teaching and research focus on ethics, political philosophy and political theory, questions of moral choice in areas such as, but not restricted to, business, government, law, economics, and medicine".

Dr Fiona Woollard, Associate Professor of Philosophy, has been awarded a Visiting Fellowship by the Australian National University (ANU). This will allow Fiona to spend the summer participating in the research culture of ANU's School of Philosophy, without doubt the leading centre for the subject in the region. In the QS World University Rankings for Oceania, ANU ranks 1st in Philosophy and 1st overall.

Dr Suki Finn, a postdoctoral researcher on the ERC-funded project, Better Understanding the Metaphysics of Pregnancy, is to hold Visiting Fellowships at the New York University and the City University of New York. Suki will divide her time between the Philosophy Departments at both institutions when visiting in the autumn.

And Charlotte Unruh, a postgraduate researcher, has been awarded a Fellowship by the Hebrew University of Jerusalem to participate in its 'Ethics and Uncertainty' project.

TIMOTHY LEIGHTON

Professor Timothy Leighton has achieved a rare 'triple crown' for Academicians with his invitation to become a Fellow of the Academy for Medical Sciences.

Professor Leighton is one of 48 of the UK's world leading researchers elected as Fellows. He is also one of four new Fellows invited to address the Academy on its 2018 New Fellows Admission Day at the Royal College of Physicians and Academy of Medical Sciences.

The term 'Academician' is widely used in Russia, USA, Europe and China to indicate someone who has reached the peak of their profession, as marked by an invitation to join the national Academy for that profession. For Professor Leighton, who was already a Fellow of both the Royal Society and the Royal Academy of Engineering, this latest honour secures Southampton's reputation for leading multidisciplinary research. Indeed, on awarding him the Paterson Medal in 2006, the Institute of Physics called him 'an acknowledged world leader in four fields' in the citation.

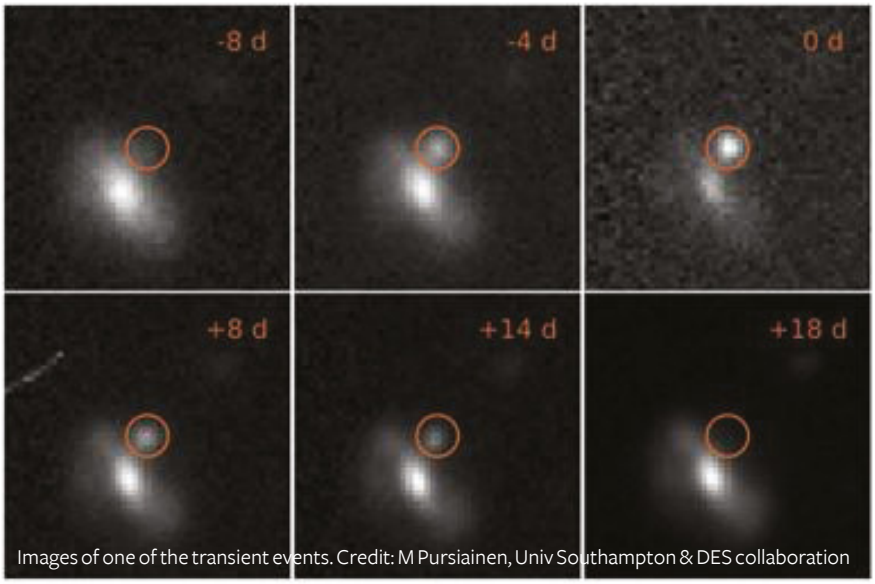
Professor Leighton is well-known for his ground-breaking work in different fields, inventing revolutionary sonar and radar systems; pioneering apparatus used to detect leaks from carbon capture and storage reservoirs, and gas pipelines; developing inventions to improve safety in the nuclear and railway industries; and his insights in whale behaviour, ecology, and extraterrestrial studies. He will shortly be releasing major new findings from his studies on the exchange of carbon between atmosphere and ocean, and the implications for climate change.

He said: "I am humbled and honoured by this recognition of the work conducted by me as part of multidisciplinary teams of nurses, doctors, health and medical scientists, microbiologists, engineers, statisticians, geographers and thousands of brave patients and volunteers. It has been an honour to work with them."

MEDIA HIGHLIGHTS

Astronomers find 72 bright and fast explosions: a team of astronomers found 72 very bright, but quick events in a recent survey and are still struggling to explain their origin. Miika Pursiainen, PhD researcher from the University of Southampton, presented the new results at the European Week of Astronomy and Space Science in Liverpool. The results achieved media coverage including the **Daily Mail, Newsweek, Phys.org**.

Chlorine, commonly used in the agriculture industry to decontaminate fresh produce, can make foodborne pathogens undetectable according to new research led by the University of Southampton. The study has been published in mBio, the lead journal for the American Society for Microbiology. The news was also reported by **The Guardian, foodnavigator.com** and **Reuters.**



Images of one of the transient events. Credit: M Pursiainen, Univ Southampton & DES collaboration


Part of the study was carried out on spinach leaves

The UK's changing climate means conditions may now be suitable for one of Sir Winston Churchill's favourite butterflies - the Black-veined White - to return, a study has revealed. Climate change poses a huge threat for many of the UK species of butterfly but could provide the large and striking Black-veined White with an opportunity according to a study presented by Fabrizia Ratto, a postgraduate research student in Environmental Biosciences at Southampton who conducted one of the studies on behalf of Butterfly Conservation. The news was reported by BT, **The Guardian**, the **Daily Mail**, the **Times**.

A study led by the University of Southampton has found that pouring emollient additives into the bath do not add any benefit over standard management. The Bath Additives in the Treatment of Childhood Eczema (BATHE) trial was funded by the National Institute for Health Research (NIHR), and the University worked in partnership with the University of Bristol, Cardiff University and the University of Nottingham. The **BMJ**, **Reuters**, the **Daily Telegraph**, **Huffington Post** an **BBC Breakfast** were among those to report the news.

The Black-veined White butterfly could make a return to the UK after becoming extinct in the 1920s

Study found most widely used treatments for childhood eczema are not helpful

FUNDING NEWS

FACULTY OF ENGINEERING AND THE ENVIRONMENT

Prof Abubakr Bahaj; Civil, Maritime and Environmental Engineering and Science
Resilient and sustainable energy networks for developing countries
EPSRC; £672,087 over 36 months

Prof John Mcbride; Mechanical Engineering
The effects of electrode surface poperties on electricity generation performace of microbial fuel cells
Royal Academy of Engineering; £25,000 over 24 months

Prof Philippa Reed; Mechanical Engineering
Innovative composite roofing/pavement product development through blending of plastic waste & sand/quarry by-products
British Council, Newton-Utafiti Fund; £65,390 over 12 months

Prof William Powrie; Civil, Maritime and Environmental Engineering and Science
UKCRIC Co-ordination node
EPSRC; £224,470 over 42 months

Dr Gerald Muller
HyPump
£116,215 over 36 months

Prof William Powrie
Asphalt
Network Rail; £65,000 over 12 months

Prof William Powrie
Extension to Network Rail Strategic University Partnership in Future Infrastructure Systems
Network Rail; £68,500 over 18 months

Prof William Powrie and Dr Richard Beaven, Principal Research Fellow, Civil, Maritime and Environmental Engineering and Science
Quantifying macroscopic flow and transport in the unsaturated zone to address the long-term contaminant burden of waste repositories.
EPSRC; £822,720 over 36 months

Prof Malcolm Hudson; Civil, Maritime and Environmental Engineering and Science
Malcolm Hudson - The Great Britain Sasakawa Foundation
SASAKAWA Foundation; £4,000 over 4 months

Dr. Anne Stringfellow; Civil, Maritime and Environmental Engineering and Science
Coastal landfill and shoreline management: implications for coastal adaptation infrastructure
Environment Agency; £10,945 over 2 months

Prof Peter Glynne-Jones; Mechanical Engineering
Diagnostics for the future: Combining optical tomography with microfluidic systems for high throughput 3D imaging of single cells
Royal Society; £12,000 over 24 months

Prof Liudi Jiang; Mechanical Engineering
A novel Socket Interface Monitoring System (SIMS) to guide socket fitting for growth in lower limb child amputees National Institute of Health Research; £49,920 over 9 months

Prof Liudi Jiang; Mechanical Engineering
An adjustable electrode housing to improve myoelectric signal acquisition in sockets that accommodate growing residual limbs
National Institute of Health Research; £7,644 over 9 months

Prof Tiina Roose; Mechanical Engineering
Multi-Soil' Multimodal image based modelling in soil
BBSRC; £10,071 over 12 months

Dr Filippo Maria Fazi; Institute of Sound and Vibration Research
Industry Academia Partnership Programme Award
Royal Academy of Engineering; £8,294 over 12 months

Dr. Andrew Vowles; Civil, Maritime and Environmental Engineering and Science
Impact of Eurasian beaver (Castor fiber) dams of fish communities in Southern England
Devon Wildlife Trust; £3,070 over 1 month

Prof Bharathram Ganapathisubramani; Aeronautics, Astronautics and Computational Engineering
Understanding and exploiting non-equilibrium effects in turbulent boundary layers: towards realisable drag reduction strategies
EPSRC; £682,414 over 48 months

Prof Denis Kramer, Giles Richardson and Chris Skylaris; Mechanical Engineering
Faraday Challenge Multi-Scale Modelling
EPSRC; £1,075,155 over 36 months

Dr Mithila Achintha; Civil, Maritime and Environmental Engineering and Science
TLIINCSEFFR (Towards Low Impact and Innovative New Concrete Structures: Exploitation of FRP Fabric Reinforcement)
European Commission; £156,364 over 24 months

Dr. Benjamin Anderson; Civil, Maritime and Environmental Engineering and Science
Smart Meter Research Portal
EPSRC; £162,954 over 60 months

Prof Zheng Jiang; Mechanical Engineering
Photoelectrocatalytic ultrafiltration membrane for concurrent wastewater purification and energy recovery
Royal Society; £12,000 over 24 months

Dr Min Kwan Kim; Aeronautics, Astronautics and Computational Engineering
Electrical Modelling of Discharge Transition in Atmospheric Dielectric Barrier Discharge
Royal Society; £11,970 over 24 months

Dr Simon Blainey
Predicting and mitigating small fluctuations in station dwell times
RSSB (Railway Safety and Standards Board Limited): £79,788 over 9 months

Prof Gabriel Weymouth
Data integrated models of wake-induced unsteady forces US Office of Naval Research Global; £332,441 over 36 months

Prof Ling Wang, nCATS, Faculty of Engineering and the Environment
Further Understanding of Rolling Contact Fatigue in Rolling Bearings
Schaeffler Technologies GmbH & Co. KG; £108,000 over 42 months

Dr Louis Le Pen
Asphalt trackbed laboratory testing project
Aecom, RSSB and Network Rail. £80,000

Dr Georges Limbert
Image-based microstructural modelling of skin mechanics and ageing
Procter & Gamble; £29,927 over 2 months

Prof Jim Scanlan
Rolls-Royce - Cost and Value Engineering SOW
Rolls Royce PLC: £136,707 over 12 months

Dr Rodney Self
RR UTC 18
Rolls Royce PLC; £274,933 over 12 months

Prof Timothy Leighton; Institute of Sound and Vibration Research
Bubble for life: Hydrodynamic cavitation for water disinfection in developing countries
Politecnico Di Torino; £3,531 over 24 months

Prof Timothy Leighton; Institute of Sound and Vibration Research
Dr David Voegeli, Dr Tom Secker, Dr Kit Harling Translation Award
Royal Society; £48,755 over 24 months

Dr of David Thompson
Low-frequency sleeper and slab noise prediction improvement
Construcciones Y Auxiliar de Ferrocarriles, S.A.; £24,144 over 7 months

Dr Joel Smethurst; Civil, Maritime and Environmental Engineering and Science
EPSRC Programme Grant ACHILLES
EPSRC; £712,077 over 54 months

Dr Joseph Banks
Simulating the Performance of British Swimmers'
UK Sport; £3,966 over 1 month

Dr. Zhengtong Xie
Air Quality Around Tall Buildings
RWDI Anemos Ltd: £7,000 over 6 months

Prof Patrick James; Civil, Dr S Gautier and Prof A S Bahaj, Energy and Climate Change Division
Seamless & Engaging Home Services: Making Efficiency Desirable
Department for Business, Energy & Industrial Strategy (BEIS); via the Thermal Efficiency Innovation Fund; £251,356 over 24 months

FACULTY OF HEALTH SCIENCES

Prof Jane Burridge; Professor of Restorative Neuroscience, Faculty of Health Sciences
Mechanical Muscle Activity with Real-time Kinematics (M-MARK): A novel combination of existing technologies to improve arm recovery following stroke
National Institute for Health Research, Invention for Innovation (i4i) Programme. £1,016,576 over 32 months.

Prof Peter Worsley; Faculty of Health Sciences - Central
Combing Biomarker and Actimety Sensing to Assess the Risk of Pressure Ulcers in Individuals with Mental Illness
EPSRC; £15,000 over 12 months

Prof Susan Latter
A mixed methods observational study to evaluate implementation, impact and outcomes of a smartphone software application and computerised decision-support system (CDSS) for antibiotic treatment guidelines in NHS hospitals.
Merck Sharp & Dohme Corp.; £12,333 over 18 months

Prof Alison Richardson; Faculty of Health Sciences - Central
Methylphenidate versus placebo for fatigue in advanced cancer (MePFAC)
National Institute of Health Research; £60,000 over 48 months

Prof Alison Richardson; Faculty of Health Sciences - Central
Cancer Transformation Funding - Stratified Pathways
NHS England; £50,000 over 12 months

Prof Peter Griffiths; Faculty of Health Sciences - Central
Framework For Safe Nurse Staffing & Skill Mix
Department Of Health Ireland; £31,080 over 36 months

Dr Peter Worsley
SR Soft Vision. Supporting the CE marking of a medical device in collaboration with the NIHR Office for Clinical Research Infrastructure (NOCRI).
Sumitomo Riko Company Limited; £7,919 over 1 month

FACULTY OF HUMANITIES

Prof Mary Hammond; English
Fluid geographies and global mobilities: recovering Southampton's translocal book trade networks 1840-1914
British Academy; £33,000 over 6 months

Prof Joanna Sofaer; Archaeology
Women at the Edge of Empire
European Commission; €195,454.80 over 24 months

Dr Peter Campbell; Archaeology
Archeo-Palemagnetic Dating of Transport Amphoras from Submerged Contexts
Honor Frost Foundation; £10,655 over 19 months

Prof Francesco Izzo; Music
Towards a Digital Critical Edition of The Works of Giuseppe Verdi
European Commission; £146,764 over 24 months

FACULTY OF MEDICINE

Prof Myron Christodoulides; Clinical and Experimental Sciences
Christodoulides - Royal Society - Rapid diagostic assay for visceral leishmaniasis - Retrospective (October 2017)
Royal Society; £11,960 over 12 months

Prof Paul Little; Primary Care and Population Sciences
NIHR via QMUL - SURECAN (July 2016)
National Institute of Health Research; £6,181 over 60 months

Prof Paul Little; Primary Care and Population Sciences
SPCR - Saline Nasal Irrigation for Acute Sinusitis: Pilot Trial (November 2017).
National Institute of Health Research; £250,141 over 23 months

Prof Paul Little; Primary Care and Population Sciences
NIHR SPCR (via Manchester) - Investigating Burnout in general practitioners and indicators of suboptimal patient care using the Clinical Practice Research Datalink (Nov 17)
National Institute of Health Research; £5,036 over 18 months

Prof Julie Parkes; Primary Care and Population Sciences
NIHR - Gateway: A randomised control trial, economic and qualitative evaluation to examine the effectiveness of an out-of-court community-based Gateway intervention program at improving health and well-being for youth offenders; victim satisfaction and reducing recidivism
National Institute of Health Research; £712,659 over 41 months

Prof Aymen Al-Shamkhani; Cancer Sciences
CRUK - Targeting TNFRSF25 to promote anti-tumour immunity
Cancer Research UK; £458,002 over 36 months

Profs Keith Godfrey & Karen Lillycrop
Using a model system to assess therapeutics
BenevolentAI Bio Ltd; £186,943 over 19 months

Dr Ali Roghanian; Cancer Sciences
Generation of humanised mice to evaluate the efficacy of biologics in vivo
Wessex Medical Research Innovation Grant; £19,075 over 24 months

Mr Kris Ostridge; academic clinical lecturer in respiratory medicine
Detecting Eosinophilic inflammation in COPD using novel SPECT-CT imaging".
Wessex Medical Trust; £19,138 over 12 months

Dr Isabel Reading; Primary Care and Population Sciences
Research Design Service South Central 2018-2023 (Jun 17)
National Institute of Health Research; £5,346,260 over 60 months

Prof Roxana-Octavia Carare; Clinical and Experimental Sciences
Targeting adrenergic innervation of cerebral blood vessels for the treatment of Alzheimer's disease
British Neuroathological Society; £5,000 over 12 months

Prof William Tapper and Dr. Zoe Walters; Human Development and Health
Linking tumour heterogeneity to responsiveness to therapy in rhabdomyosarcomas
Sarcoma UK; £24,820 over 24 months

Prof Hazel Everitt; Primary Care and Population Sciences
NIHR HTA - Extension to 513061 (Sept 2017)
National Institute of Health Research; £23,107 over 10 months

Prof Delphine Boche; Clinical and Experimental Sciences
British Neuropathological Society small grant - Microglia/macrophage immunophenotypes in glioblastoma and their association with clinical outcome
British Neuropathological Society; £5,000 over 12 months

Prof Rohan Lewis; Medical Education
IMPRINT - Unravelling maternal protection: Factors affecting trans placental transfer of antibody from mother to infant
MRC; £19,200 over 18 months

Prof Salim Khakoo; Clinical and Experimental Sciences
University of Southampton - MRC - Confidence in Concept (CiC) - Khakoo
MRC; £236,000 over 48 months

Prof Andrew Lotery; Clinical and Experimental Sciences
NIHR via UHS, supplement to ARCP000513
National Institute of Health Research; £4,831 over 4 months

Dr. Ian Galea; Clinical and Experimental Sciences
Systemic inflammation and the blood-brain barrier in multiple sclerosis (SIBIMS)
MRC; £256,724 over 36 months

Prof Michael Moore; Primary Care and Population Sciences
Moore - SPCR (via Oxford) - Cranberry in urine infection: feasibility trial (November 2017)
National Institute of Health Research; £17,392 over 24 months

Prof Michael Moore; Primary Care and Population Sciences
Moore - NIHR (Via KCL) - Safety of reducing antibiotic prescribing in primary care. Systematic new evidence from health records (Jun 17)
National Institute of Health Research; £14,506 over 30 months

Prof Geraldine Leydon; Primary Care and Population Sciences
SPCR - Antibiotic prescribing patterns in contacts with English out-of-hours primary care services (November 2017)
National Institute of Health Research; £227,249 over 30 months

Prof Andrew Cook; Wessex Institute
Multicentre, Double Blind, Randomised Controlled Trial of 10kHz High-Frequency Spinal Cord Stimulation for Chronic Neuropathic Low Back Pain (Modulate-LBP)
National Institute of Health Research; £6,888 over 30 months

Dr Andrew Cook; Southampton Clinical Trials Unit
ICaRAS (Intravenous Iron for Cancer Related Anaemia Symptoms) – A Feasibility Study of Intravenous Iron Therapy for Anaemia in Palliative Cancer Care
National Institute for Health Research, Research for Patient Benefit Programme, £218,895 over 24 months.

Mr Nigel Hall; Human Development and Health
Investigating Remote Ischaemic Conditioning as a Novel Therapy for Necrotising Enterocolitis
Royal College of Surgeons Pump Priming Grant; £9,000 over 12 months

Associate Prof Andrew Steele; Cancer Sciences
KKLF - Investigating the impact of interleukin-4 in CLL Biology
The Kay Kendall Leukaemia Fund; £76,182 over 15 months

Dr. Matthew Loxham; Clinical and Experimental Sciences
Ferroptosis: A New Mechanism Behind the Health Effects of Air Pollution?
The Academy of Medical Sciences; £99,538 over 24 months

Dr. Dean Bryant; Cancer Sciences
Development of a single ATAC seq pipeline for the investigation of BCR signalling in CLL
Wessex Medical Trust; £19,000 over 24 months

Dr. Mark Lown; Primary Care and Population Sciences
Lown - SPCR (via Cambridge) - Screening for atrial fibrillation (November 2017)
National Institute of Health Research; £10,455 over 18 months

Dr. Yury Bogdanov; Cancer Sciences
Bogdanov - CRUK - Modulating GABAergic Signalling to Augment the Immunotherapy of Solid Tumours.
Cancer Research UK; £203,609 over 24 months

Prof Andrew Lotery
Supplement to ARCP00490
Gyroscope Therapeutics Limited; £19,415 over 17 months

Prof David Baldwin; Clinical and Experimental Sciences
Centre for Workforce Wellbeing
Health Education England - CENTRAL; £330,000 over 36 months

Prof Graham Packham; Cancer Sciences
Evaluation of novel signalling inhibitors for B-cell cancers
Aquinox Pharmaceuticals (Canada) Inc; £173,779 over 12 months

Prof Mark Cragg; Martin Glennie and Stephen Beers,Cancer Sciences
Generation and Evaluation of Therapeutic Antibodies Targeting T regs (extension). BioInvent International AB; £275,163 over 18 months

Dr Cornelia Blume; Clinical and Experimental Sciences
The role of cilia in respiratory viral infections: Does an abnormal cilia beat pattern promote infections in Primary Cilia Dyskenea (PCD), a rare inherited disease?
Wessex Medical Trust; £20,000 over 24 months

FACULTY OF NATURAL AND ENVIRONMENTAL SCIENCES

Prof Jeremy Frey; Chemistry
Artificial and Augmented Intelligence for Automated Scientific Discovery
EPSRC; £770,409 over 36 months

Prof Graham Langley; Chemistry
Maximising Ion Mobility Mass Spectrometry
EPSRC; £187,446 over 24 months

Prof Lisa Mcneill; Ocean and Earth Science
IODP Expedition 381 Corinth Rift: FEC Co-Chief Scientist Duties and Post-Moratorium Research
Natural Environment Research Council; £101,233 over 60 months

Prof Syma Khalid; Chemistry
The UK High-End Computing Consortium for Biomolecular Simulation
EPSRC; £321,432 over 48 months

Dr. Joanna Nield; Geography and Environment
The Origin of Aeolian Dunes (TOAD)
Natural Environment Research Council amd NSF; £307,336 over 36 months

Dr Raymond Allan; Biological Sciences
Targeting pneumococcal carbohydrate metabolism to treat childhood infections
Rosetrees Trust; £19,850 over 24 months
Prof Nuria Garcia-Araez; Chemistry
Towards a Comprehensive Understanding of Degradation Processes in EV Batteries
EPSRC; £359,932 over 36 months

Dr David Tumbarello; Biological Sciences
Investigating Parkinson's disease mechanisms: interrogating the spatiotemporal function of LRRK2 in mitochondrial quality control.
Royal Society; £19,250 over 12 months

Prof Stephen Goldup; Chemistry
H2020-MSCA IF-ROT-DNA-S Goldup-14.09.17
European Commission; £141,119 over 24 months

Dr. Bjorn Robroek; Biological Sciences
Do plant communities affect microbial function in peatlands?
British Ecological Society; £5,000 over 12 months

Prof Salah Elias; Biological Sciences
The Genetics and Developmental Biology of Cell Division in Mammary Stem Cells
Royal Society; £14,942 over 12 months

Prof Matthew Crispin; Biological Sciences
Against Breast Cancer programme grant in Therapeutic Antibodies
Against Breast Cancer; £2,000,000 over 120 months

FACULTY OF PHYSICAL SCIENCES AND ENGINEERING

Prof Lajos Hanzo; Electronics and Computer Science
European Research Council Advanced Fellow Grant: QuantCom: Ubiquitous Quantum Communications
European Commission; 2.5m Euros over 60 months

Prof Mark Zwolinski; Electronics and Computer Science
Pragmatic KTP
Innovate UK; £130,647 over 30 months

Prof Nikolay Zheludev; Optoelectronics Research Centre
FLEET-H2020-ERC-2017-AdG
European Commission; £1,967,558 over 60 months

Prof Stephen Beeby; Electronics and Computer Science
MONAXLE - Live monitoring of train axles with autonomous wireless systems
Innovate UK; £160,163 over 24 months

Prof Peter Kazansky; Optoelectronics Research Centre
ENIGMA: "ENGineering MAterial properties with advanced laser direct writing"
European Commission; £1,999,966 over 60 months

Prof Lie-liang Yang; Electronics and Computer Science
KNOWLEDGE TRANSFER PARTNERSHIP between University of Southampton and AccelerComm Limited
Innovate UK; £127,301 over 30 months

Dr Corin Gawith; Optoelectronics Research Centre Knowledge Transfer Partnership with Covesion Ltd (KTP011034)
Innovate UK; £96,480 over 24 months

Dr. Vassili Fedotov; Optoelectronics Research Centre
Stiction-Free and Tuneable Nano-Electro-Mechanical Systems Incorporating Liquid Crystals
EPSRC; £783,222 over 36 months

Prof Cornelis De Groot; Electronics and Computer Science
Tunable transparent conductive oxides for plasmonic electronic beam steering
Royal Society; £11,810 over 24 months

Prof Alexey Kavokin; Physics and Astronomy
Control of light in composite semiconductor microstructures
Royal Society; £12,000 over 24 months

Dr Jun-Yu(Bruce) Ou; Optoelectronics Research Centre
Dynamic Anapole Mater
Royal Society/ Ministry of Science and Technology Taiwan; £24,000 over 24 months

Prof Themis Prodromakis; Zepler Institute for Photonics & Nanoelectronics
Functional Oxide Reconfigurable Technologies (FORTE)
EPSRC; £4,168,893 over 66 months

Associate Prof Francesco Shankar; Physics and Astronomy
Cutting-edge semi-empirical models for supermassive black hole-galaxy evolution
Leverhulme Trust; £54,999 over 24 months

Prof Luca Sapienza; Physics and Astronomy
TeraDot: Terahertz excitations of coupled quantum dots
Royal Society; £11,960 over 24 months

Prof Poshak Gandhi; Physics and Astronomy
UKIERI Phase 3 Partnership between Southampton and IUCAA. Next-generation multiwavelength time-domain astrophysics: developing world-leading India/UK expertise
UKIERI; £38,275 over 24 months

Dr. Danesh Tarapore; Electronics and Computer Science
EPSRC First Grant
EPSRC; £215,174 over 30 months

Prof Poshak Gandhi and Mr Peter Boorman
Support to attend the Local hard X-ray selected AGN across the multi-wavelength spectrum and pre-conference visit
Royal Astronomical Society; £1,000 over 1 month

Dr Senthil Ganapathy
Mid-Infrared CRyptophane-enhanced On-chip Sensor
University of Tromso; £17,779 over 4 months

Prof Sebastian Hoenig
LSST: UK Pool Travel Fund
Science And Technology Facilities Council; £882 over 6 months

Dr Poshak Gandhi; Physics and Astronomy
IOP Conference Travel Fund
Institute of Physics (IOP); £300 over 3 months

Dr Daniel Whiter
Deposition of hydroxyl in the upper atmosphere by hydrated meteors
Royal Astronomical Society; £1,200 over 2 months

Dr Martynas Beresna; Optoelectronics Research Centre
Compact Tailored Spectrometer
EPSRC; £33,249 over 9 months

FACULTY OF SOCIAL, HUMAN AND MATHEMATICAL SCIENCES

Prof Christopher Hill; Geography and Environment
Hill, RiverHealth, Scottish Government, Lead by Dundee Uni
Scottish Government; £66,596 over 15 months

Prof Neil Wrigley; Geography and Environment
Wrigley, Tom Reardon Brit Academy Visiting Fellowship application
British Academy; £14,000 over 2 months

Prof Graham A. Niblo; Mathematical Sciences
Niblo RS Exchange - On the K-theory of Roe algebras and their smooth subalgebras
Royal Society; £12,000 over 24 months

Prof Pauline Leonard; Social Sciences
ESRC Post Doctoral Fellowships SC DTP
ESRC; £445,017 over 12 months

Dr. Brienna Perelli-Harris, Associate Professor of Demography
Relationship quality and family transitions: The UK in international comparison
ESRC; £160,864 over 18 months

Prof David Woods; Mathematical Sciences
Woods EPSRC - A hybrid statistical-robotic search system for complex functional products
EPSRC; £270,269 over 36 months

Prof Jane Falkingham; Social Sciences
ESRC Centre for Population Change extension funding
ESRC; £941,800 over 36 months

Prof Jean-Yves Pitarakis; Social Sciences
Pitarakis BA small award
British Academy; £5,895 over 18 months

Prof Andrew Channon; Social Sciences
Co-PI: Dr Pia Riggirozzi
Engaging Users for Quality Enhancement and Rights (EU QUERO): Strengthening the maternal and child healthcare system over the first 1000 days in Brazil through community engagement and social accountability
MRC; £202,297 over 36 months

Prof Christopher Armstrong; Social Sciences
Ocean Justice
British Academy/Leverhulme Trust; £42,041 over 12 months

Prof Christina Liossi; Psychology
GOSH SPARKS End of Life Pain Management
Great Ormond Street Hospital for Sick Children NHS Trust; £98,087 over 24 months

Dr David Clifford; Social Sciences
Phillip Leverhulme Prize
Leverhulme Trust; £100,000 over 36 months

Dr. Armando Martino; Mathematical Sciences
The Lipschitz Metric and the Conjugacy Problem for Automorphisms of Free Groups"
Leverhulme Trust; £190,455 over 36 months

Adam Pound, Royal Society University Research Fellow; Mathematical Sciences
Royal Society Research Grant for Research Fellows - Accurate waveforms from extreme-mass-ratio inspirals into rotating black holes
Royal Society; £95,248 over 48 months

Prof Christopher Downey; Southampton Education School Downey Ambition School Leadership - School performance and improvement in challenging contexts
Ambition School Leadership Trust; £45,672 over 7 months

Prof James Hall; Southampton Education School
Oxford University Press
Oxford University Press; £39,625 over 9 months

Dr Philip Higham; APS Successive Relearning Intervention in Introductory Psychology
Association for Psychological Science; £10,552 over 8 months
Prof Jadunandan Dash; Geography and Environment Fiducial Reference Measurement for Vegetation' (FRM4VEG)
European Space Agency; £84,932 over 12 months

Mr Jason Sadler; Geography and Environment
Development and support of research data infrastructure in collaboration with the Flowminder Foundation
Flowminder Foundation; £26,383 over 12 months

Prof Nils Andersson; Mathematical Sciences
Andersson STFC/GCRF - Ground based gravitational wave astronomy
Science And Technology Facilities Council; £9,958 over 33 months

This list encompasses a selection of awards logged with University of Southampton Finance from February to May 2018 that are considered non-commercially sensitive.

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