

## Research focus

We are proud that every member of our academic staff is actively involved in research in some capacity. This research informs our teaching and helps to ensure that we remain at the cutting edge of sports and exercise science, with a number of students volunteering as participants for this work. Read about one of our recent research highlights (right).



## Exercise and Cystic Fibrosis

Zoe Saynor has recently joined the Department of Exercise Science from the University of Exeter where she worked within the Children's Health and Exercise Research Centre and Royal Devon and Exeter NHS Foundation Trust Hospital whilst undertaking her PhD in the area of exercise with paediatric cystic fibrosis patients. Cystic fibrosis is an inherited disease caused by a faulty gene which controls the movement of salt and water in and out of cells, so the lungs and digestive system of individuals with cystic fibrosis become clogged with mucus, making it hard to breathe and digest food. Zoe's research has focused on the role of exercise in these individuals and in particular examining exercise testing and the limiting factors of oxidative metabolism in paediatric cystic fibrosis patients, as well as work looking at skeletal muscle exercise responses of young cystic fibrosis and non-cystic fibrosis bronchiectatic patients. In a study recently published in *Paediatric Physical Therapy* Zoe has examined the effect of Ivacaftor, a new type of oral treatment which helps to restore the salt transporting capacity of cells in individuals with cystic fibrosis. This research showed that Ivacaftor was effective in improving the exercise capacity in some individuals as a consequence of an improved ability to utilise oxygen. Since her arrival at the University of Portsmouth Zoe has secured a research start-up fund and Research Development Fund early career researcher funding to assist her with continuing this important work. Zoe is also working to develop cross-departmental links within the University of Portsmouth and local hospitals, helping to build upon the Department of Sport and Exercise Science's growing reputation in the area of exercise and health.

## Research excellence recognised

The quality of research in UK higher education institutions has recently been assessed by the Research Excellence Framework 2014. This was the first submission of the Department of Sport and Exercise Science to the research assessment process. The submission was based on researchers, working in three interrelated, multidisciplinary research groups: Extreme Environmental Medicine and Science; Breast Health; Human Performance and Health. The submission included two impact case studies which reflected our world-leading role in applied research in these important niche areas. One impact statement was in the area of 'improving understanding and changing protocols for the rescue and resuscitation of immersion victims', the other in the area of 'improving sports bra design and breast health through biomechanics research'. The environment that we create for research was rated as either internationally excellent or internationally recognised in terms of its quality, significance and rigour. One hundred per cent of our impact was rated as either outstanding or very considerable in terms of its reach and significance and eighty-seven per cent of our research output was rated as internationally excellent or internationally recognised in terms of its quality, significance and rigour.

# Pulse

## Welcome

Welcome to the third issue of *Pulse*, the newsletter of the University of Portsmouth's Department of Sport and Exercise (DSES). Whether you are a current, future or former student, or you are simply interested in DSES, we extend a very warm welcome to you.

We hope that *Pulse* will help you to keep up-to-date with the many exciting and interesting projects in which our staff and students are involved. Please remember that this is your newsletter too, so if you have any projects or successes to share, or suggestions for features, please email [jo.corbett@port.ac.uk](mailto:jo.corbett@port.ac.uk). And don't forget, there is more to watch and read online at [www.port.ac.uk/sportscience](http://www.port.ac.uk/sportscience).

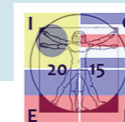
Best sport and exercise science department for Overall Student Satisfaction in the South East of England and fourth in the UK (National Student Survey 2013-2014).

For our additional rankings success, visit [www.port.ac.uk/sportscience/highlights](http://www.port.ac.uk/sportscience/highlights).

## Portsmouth to host ICEE conference

We are honoured and excited to be hosting the 16th International Conference on Environmental Ergonomics on 28 June until 3 July, 2015. Environmental Ergonomics concentrates on the interaction between the user and his or her physical environment, with most of the research concentrating on thermal environments and particularly extremes of heat and cold, as well as altitude. These are areas in which the University of Portsmouth has a world-leading reputation through the Extreme Environmental Medicine and Science Research Group. Up to 250 international delegates will be in attendance and the culmination of the conference will be the conference dinner, held on *HMS Warrior* 1860.

For more information and to book, visit [www.port.ac.uk/the-16th-international-conference-on-environmental-ergonomics-icee](http://www.port.ac.uk/the-16th-international-conference-on-environmental-ergonomics-icee) and read our full review in the next edition of *Pulse*.



## Inaugural DSES Schools Christmas Lecture

On 16 December 2014 the Department of Sport and Exercise Science hosted around 140 secondary school children for the inaugural DSES Christmas lecture. The concept of the lecture programme is similar to the Royal Society Christmas Lectures in which leading academic experts translate their research into exciting, engaging and informative lectures in order to enthuse students about science. The theme of this year's lecture was the sports science behind the Rio 2016 Olympic Games. Drs Matt Dicks, Jim House and Chris Mills provided a series of interactive lecture experiences which included the opportunity to try state-of-the-art eye-tracking equipment. They also explored the role of biomechanics in performing gymnastic activities through a scale model of a gymnast, highlighting the way in which some of the research conducted in DSES can be used to improve performance in Rio 2016. The lecture organiser, Dr Jo Corbett, commented: 'we were really pleased to see so many schools engage in this first Christmas lecture and hope to repeat this on an annual basis in future. The feedback from the schools was very positive and we are confident that all of the attendees will have a better understanding of the role of science in sport.'





## Student success

### The first ever University of Portsmouth Sports Science graduate

Following the first issue of *Pulse*, Neil Ashton made contact with the Department of Sport and Exercise Science. Neil was a member of the first ever Sports Science cohort at Portsmouth, graduating in 1997. He decided to study Sports Science as he wanted a career in the sports industry and was attracted to Portsmouth's coastal location. Because of Neil's surname, he had the distinction of being the first student to walk across the stage at the graduation ceremony. After graduating, Neil completed a PGCE in PE teaching and then became a PE teacher. He is currently Assistant Head Teacher in charge of teaching and learning and has worked as a coach for Wigan Athletic. In 2012 Neil was awarded the RFL and English Schools National Teacher of the Year, and received his award at Wembley during the Challenge Cup final. Neil says: 'my best memories are of the great people I met, the social life and the opportunities I was given. I wouldn't be where I am today without the help, support and guidance I was given during my time at Portsmouth and I'm very grateful for that.'



### Students awarded to help career development

This year's DSES-sponsored £500 Career Development Award have been presented to **Danielle Kidd** (Year three BSc (Hons) Sport and Exercise Science), with two further awards to **Amanda Ebbut** (MSc Clinical Exercise Science) and **Sam Green** (MSc Sports Performance). These awards provide financial support to successful applicants who can clearly demonstrate how the award will enhance their career development and future employment prospects.

Danielle will use her award to undertake an Exercise Referral qualification; Amanda will use her award to undertake a level 4 pulmonary rehabilitation course; and Sam is planning to undertake a UK Strength and Conditioning Workshop in weightlifting.

## Alumni update

The Department of Sport and Exercise Science at the University of Portsmouth has a strong employment record and we are proud of the successes of our ex-students. In this regular feature we catch up with one of our alumni to find out what they have done since leaving the University of Portsmouth.



**Name:** Ryan Blake MSc ASCC

**Courses studied:** BSc (Hons) Sport and Exercise Science, MSc Sports Performance

**Job:** Lead strength and conditioning coach at Surrey County Cricket Club and Director of [www.extremesportsperformance.com](http://www.extremesportsperformance.com).

**Typical day:** Monitoring, recording and analysis of players health; wellness and workload information; physical performance testing and screenings; strength and conditioning programme design and session delivery; overseeing nutrition programme and training supplement strategies; game day preparation and recovery protocols; intern management; coaching team meetings.

**Best thing about your job:** Getting to work with some of the best cricket players in the world and on a daily basis.

**How did you get to where you are now:** Constantly asking people, clubs, organisations and teams for experience. Giving up free time to assist with various development opportunities in sport science and regular networking. Gaining United Kingdom Strength and Conditioning Association (UKSCA) accreditation. Attending multiple continued professional development (CPD) events. Having an end goal and not stopping until I achieved it.

**Advice you would give to DSES students wanting to pursue a similar career:** Do what I have listed above alongside your degree whilst at university, not necessarily afterwards. Undertake an MSc after your BSc. Never turn down a good opportunity. Be willing to get your hands dirty and be passionate, honest and hardworking.

**Best memory of your time at Portsmouth:** Playing rugby for the UPRFC and graduation.

### Student profile

**Name:** Ricky Wilson



**What did you do before starting at the University of Portsmouth?** I had a variety of jobs before joining the Royal Marines, but I opted out because of the difficulties of juggling my family life with a military career. In 2011 I decided to pursue a career in sport because it has always been my one true passion and I enrolled on to an access course at South Downs College (Science for Health and Sport). This led to me starting my degree at the University of Portsmouth in September 2012.

**Why did you choose to study at Portsmouth?** Portsmouth was always my first choice because of the consistent performance of the Department in the various league tables, but it was also logistically a good choice due to work and family commitments.

**What's your favourite thing about being a student at Portsmouth?** My favourite thing about studying here is the general atmosphere around the University and particularly the DSES. I think it is a really positive environment for learning but it is imperative that you take control of your own development because the three years are over in a flash.

**What do you hope to do when you finish your studies?** Initially I wanted to pursue a career in teaching and this is still something that I would love to do, but during my time here I have felt my options broaden. I am also considering the MSc or MRes. I am currently an intern, working in youth physical development as a strength and conditioning coach, and I intend to gain full UKSCA accreditation but any career choice would need to benefit my family and I. However, I am thrilled to just have choices, which seems a million miles away from where I was in 2011.

## DSES staff member gets six nations call-up

Zoe Saynor, who joined the Department of Sport and Exercise Science this year, has been selected for the England squad for this season's Six Nations. Zoe balances her love of rugby with her teaching and research focused on the benefits of exercise testing and training in patients with chronic disease, particularly children and adolescents. She currently plays for Richmond Rugby Club in the English Women's Premiership. Zoe says: 'I'm thrilled to be part of a fantastic squad which is on a journey as they regroup after the World Cup win. Women's rugby is currently thriving in England, and worldwide is one of the fastest growing forms of the game.'

### DSES Professor wins prestigious award

Professor Mike Tipton has been selected by the Physiological Society (UK) to give the 2015 GL Brown Lecture, named in memory of Sir Lindor Brown and designed to stimulate an interest in physiology. Each year the recipient of the award gives the same lecture at six to eight venues across the UK and Republic of Ireland. Professor Tipton is part of the Extreme Environmental Medicine and Science Research Group and his lecture entitled 'Extreme Threats' will draw upon research undertaken at the University of Portsmouth to discuss threats to our survival, their origins, consequences and ways of transcending them.



## Alumni speak at careers conference

The Department of Sport and Exercise Science held its first alumni event on the 14 January 2015. The event, which was free to all DSES students, saw presentations from past students and the specialist recruitment company Matchtech Group PLC. Students were treated to a raft of real world experiences and hands-on advice on how to kick start your career in the increasingly competitive job market. A big thank you goes to Michael Carlton (Senior Orthopaedic Practitioner, Medway Maritime Hospital), Jamie Fellows (Sports Development Officer, Chichester District Council), Jess Bradley (Management Operations Scheme, Transport for London), Kim Longbon (Sports Development Officer, City of Westminster), Rebecca Hings (PhD student studying Organisation Studies and Human Resource Management, University of Portsmouth Business School) and MatchTech Group PLC for giving up their time and providing an afternoon full of top tips and advice. If you are a DSES alumnus and would like to speak at our conference next year please contact [mitch.lomax@port.ac.uk](mailto:mitch.lomax@port.ac.uk).

### Sandwich courses

Starting from September 2015, the Department of Sport and Exercise Science will be offering sandwich courses for undergraduate students on the Exercise and Fitness Management, Sports Development, and Sport and Exercise Science undergraduate courses. The new sandwich courses will give students on these courses the option of spending a year gaining industry experience or studying abroad between the second and third year of their studies. If you are a DSES alumnus who is working in a relevant industry and would be able to accommodate a sandwich year student please contact [mitch.lomax@port.ac.uk](mailto:mitch.lomax@port.ac.uk).

## High-quality teaching

### Staff profile

**Name:** Dr Chris Mills  
**Title:** Principal Lecturer in Sport and Exercise Biomechanics and Programme Coordinator



**What's your background?** I obtained my undergraduate and postgraduate degrees from Brunel University and my PhD from Loughborough University (2005). I worked extensively with British Gymnastics and UK Athletics for a number of years whilst studying for my PhD providing scientific support to many athletes. Outside of academia I enjoy several sports, particularly pole vaulting, gymnastics and snowboarding.

**What are your teaching duties?** I am Programme Coordinator for the BSc (Hons) Sport and Exercise Science and BSc (Hons) Exercise and Fitness Management. I also teach sports biomechanics and related subjects on our undergraduate and postgraduate degree pathways and joint supervise one PhD student.

**What are your research interests?** My work focuses on soft tissue dynamics during impulsive loading. I have applied this area of research to the lower extremity by investigating the effects of compression garments on sporting performance. I am also a part of the Breast Health Research Group where I investigate the fundamentals of upper body soft tissue and breast motion and how breast support garments affect this motion during sport and exercise. Finally, I also apply my research area to sports surfaces where I use a combination of experimental and computer simulation techniques to investigate the force dissipation characteristics of different sports surfaces during walking, running and jumping.

**What advice would you give students to help prepare for a career in sports biomechanics?** Volunteer to be a participant in a research study, to gain more experience of the research process and the biomechanics equipment used to collect data. Seek out work experience or placement opportunities within all areas of biomechanics to develop your knowledge and skills. Attend conferences and workshops to develop your contacts and demonstrate interest in the area. Be persistent as it may take a while to find the right placement or job.

**What's the best thing about DSES?** Being a part of a dynamic, vibrant team focused on developing excellence in research and teaching.