



PRESS RELEASE 23 July 2018

Royal Brompton experts to help elite athletes beat respiratory illness

Experts at Royal Brompton Hospital provide some of the most specialist care anywhere in the UK to patients with complex respiratory conditions including severe asthma, chronic obstructive pulmonary disease and cystic fibrosis.

Now, its highly-experienced doctors and researchers are helping some of Great Britain's elite athletes achieve their potential in time for the 2020 Summer Olympics in Tokyo.

In the first collaboration of its kind, the hospital's experts are joining forces with the English Institute of Sport (EIS), the Institute of Sport Exercise & Health (ISEH), and Imperial College London in a project to boost respiratory health in elite athletes.

The project aims to reduce the impact of breathing problems on the athletes' availability for training and competition as, despite having high levels of fitness, a number who compete at the highest level are still susceptible to respiratory illnesses. According to EIS data, respiratory illness is the largest health problem among UK athletes.

Problems experienced both in training and competition include respiratory infection (with symptoms such as headache, persistent coughs, sore throats and nasal discharge) and asthma, which can have a significant impact on both training and competition performance.

Dr James Hull, consultant respiratory physician at Royal Brompton Hospital, honorary clinical senior lecturer at Imperial College, and an expert in athlete respiratory health, said: "Respiratory illness is the most prevalent health issue in athletes. This project offers a great opportunity for us to really understand this area properly, to help athletes remain fully available for training and competition.

"We plan to work with EIS to apply the world-leading clinical and research expertise at Royal Brompton & Harefield NHS Foundation Trust and the National Heart and Lung Institute to inform best care for athletes, by identifying and supporting the application of state-of-the-art assessment and treatments."

The project will evaluate and support improved care in the prevention, detection and diagnosis of respiratory illness, in over a hundred athletes identified as being particularly susceptible, from a cross-section of Olympic and Paralympic sports.

These athletes will undergo a battery of tests, including lung function, immune and allergy status, respiratory tract bacterial profile, medication use and illness history at EIS sites across England.

Alongside the World Class Programme (WCP), UK Sport's National Lottery funded initiative supporting the delivery of success at the world's most significant sporting events, the project team will aim to ensure the athletes get best practice advice on how to prevent and manage respiratory illness.

In the two-year period to 20 July 2017, there were 630 respiratory illnesses recorded in 402 athletes, with an average of nine days of restricted training per occurrence, totalling around 5,800 days or nearly 16 years of training days impacted.

Over 30 per cent of the affected athletes had repeated occurrences in the two-year period, with the diagnosis of upper respiratory tract infection (URTI e.g. sinusitis, laryngitis and the common cold) accounting for 85 per cent of them followed by asthma with 11 per cent. It is also likely that under-reporting and self-managing of respiratory illness means that the rate and impact is likely to be higher still.

Dr Rod Jaques, director of medical services at the EIS, said: "A key part of our work with sports is to improve the health and wellbeing of athletes.

"It is therefore the aim to optimise respiratory health management to not only cut down on lost training time due to illness, but to improve the overall health and well-being of athletes.

"The cross collaboration and expertise from different partners is key to this project's success. Royal Brompton Hospital is one of the top institutions for understanding upper and lower respiratory tract problems in the UK, the data we collect will be vital in progressing our understanding of athlete respiratory illness and health." The results are likely to have wider public application with respiratory illness being a major economic and healthcare concern in the UK.

Ends

For further information, please contact:

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Notes to editors:

The EIS Athlete Health Team will lead the project in conjunction with Dr James Hull and Dr Mike Loosemore, EIS Sports Physician and Lead Consultant in Sport and Exercise Medicine at the ISEH. The project team will work closely with Royal Brompton Hospital (the UK's leading respiratory hospital), Imperial's National Heart and Lung Institute and medical and sport science practitioners from the EIS and national governing bodies.

Royal Brompton & Harefield NHS Foundation Trust is the UK's largest specialist centre for the treatment of heart and lung disease. Working from two sites, Royal Brompton Hospital in Chelsea, West London, and Harefield Hospital, near Uxbridge, the Trust has an international reputation for the expertise of its staff, high standard of care and research success. Experts at the Trust help patients from all age groups who have heart and lung problems and provide some of the most complex surgery and sophisticated treatments available anywhere in the world.

The Trust is the UK's largest centre for the treatment of adult congenital heart disease and is the country's leading provider of specialist respiratory care. Over the years the Trust has been responsible for major medical breakthroughs, such as the UK's first combined heart and lung transplant. It established the UK's first adult service for cystic fibrosis, which is now one of Europe's biggest treatment centres for the condition, and has pioneered the use of primary angioplasty for the treatment of heart attacks. Today the Heart Attack Centre at Harefield has one of the fastest arrival-to-treatment times in the UK, a crucial factor in patients' survival.

As a member of the Academic Health Science Centre (AHSC), in collaboration with Imperial College London, Imperial College Healthcare Trust and The Royal Marsden NHS

Foundation Trust, the Trust helps to drive innovation and improved care for over 1.1 million patients each year in North West London, by aligning the research, education and clinical services of the partner organisations. For further information, visit <u>www.rbht.nhs.uk</u>

English Institute of Sport (EIS)

The EIS was established in 2002 and since its inception has worked with sports leading up to and during Olympic and Paralympic Games, Commonwealth Games and many National, European and World events in sport.

It is a grant funded organisation through UK Sport with Olympic and Paralympic sports engaging with the EIS through their World Class Programme funding from UK Sport and English and professional sports through their Sport England and/or funding bodies. Delivering a range of performance-impacting solutions to Olympic and Paralympic sports along with a select number of non-Olympic sports through a nationwide network of expertise and facilities, the EIS is thought of as the team behind the team and it strives to be the world's leading institute of high performance sport.

The EIS worked with 93 percent of the athletes and 31 of the 34 sports that won a medal for Team GB and Paralympics GB at the Rio 2016 Olympic & Paralympic Games. Institute of Sport Exercise and Health (ISEH).

The ISEH is an exciting collaboration between UCLH (University College London Hospitals NHS Foundation Trust), HCA Hospitals, UCL, the English Institute of Sport and the British Olympic Association.

The ISEH is a major health legacy project of the London 2012 Olympic and Paralympic Games, and is a founding member of the National Centre for Sport Exercise and Medicine. ISEH seeks to deliver world-class research, teaching, training and clinical expertise in sport and exercise medicine so as to improve population health and human performance. It has a key role in promoting exercise to NHS patients and introducing exercise into the treatment plans of those patients who would benefit. The Institute plans to continue research into these areas and to offer expert teaching and training in sport and exercise medicine and other related fields. For further information please visit www.ISEH.co.uk.

Imperial College London

Imperial College London is one of the world's leading universities. The College's 17,000 students and 8,000 staff are expanding the frontiers of knowledge in science, medicine, engineering and business, and translating their discoveries into benefits for our society. Imperial is the UK's most international university, according to Times Higher Education, with academic ties to more than 150 countries. Reuters named the College as the UK's most innovative university because of its exceptional entrepreneurial culture and ties to industry.