East Lancashire Prostate Cancer Support Group Newsletter

Volume 8 **Issue2** **Date February 2019**

What's Inside

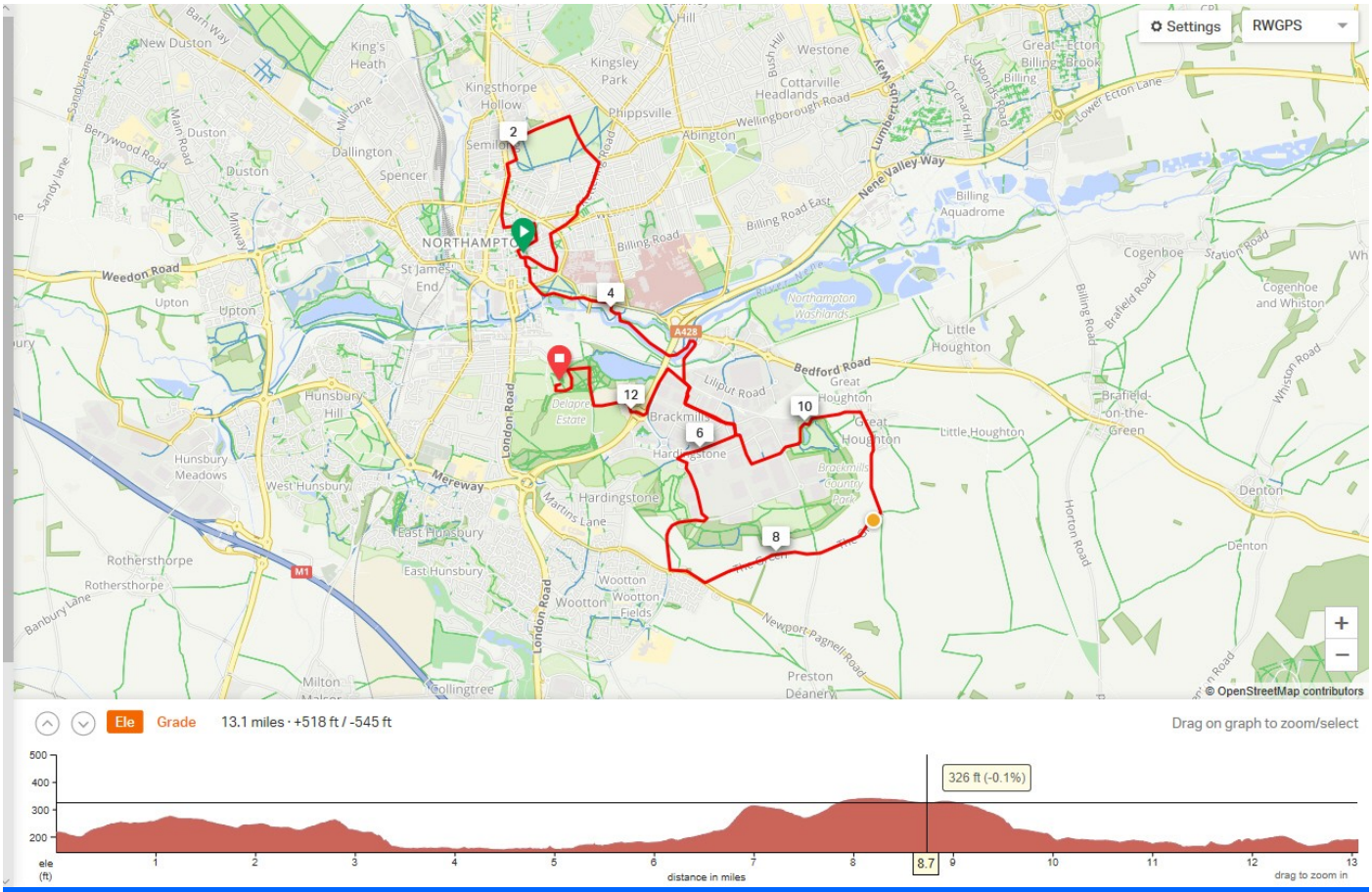
Daughter to Run in PCUK Marathon for Her Father Colin Ormston a Founder Member of ELPCSG

I have had a request from one of our group 's founder member Colin Ormston, as you know he lives in France but attends our meetings as and when over here. He has undergone the installation of an artificial sphincter but he is not in a good way and is having major problems.

His daughter Kate Ormston is running for him in a marathon organised by Prostate Cancer UK

Northampton half marathon 17th March and looking for sponsorships. Starting in the Town Centre before heading off to the surrounding countryside with close proximity via Junction 15 to the M1, a picturesque course and an inspiring finish in the shadow of Delapre Abbey making a terrific backdrop for the NorthamptonHalf-Marathon.

The race starts with a tour of Northampton's heritage. Starting at the Guildhall, touring the town centre and returning to the Guildhall before heading out of town for some picturesque countryside running. Our group will be donating £100 (Over page is the proposed route for 2019)



Researchers develop prostate cancer prediction tool that has unmatched accuracy

Date: February 7, 2019

Source: The Mount Sinai Hospital / Mount Sinai School of Medicine

A team of researchers from the Icahn School of Medicine at Mount Sinai and Keck School of Medicine at the University of Southern California (USC) have developed a novel machine-learning framework that distinguishes between low- and high-risk prostate cancer with more precision than ever before. The framework, described in a Scientific Reports paper published today, is intended to help physicians -- in particular, radiologists -- more accurately identify treatment options for prostate cancer patients, lessening the chance of unnecessary clinical intervention.

Prostate cancer is one of the leading causes of cancer death in American men, second only to lung cancer. While recent advances in prostate cancer research have saved many lives, objective prediction tools have, until now, remained an unmet need.

Presently, the standard methods used to assess prostate cancer risk are multiparametric magnetic resonance imaging (mpMRI), which detects prostate lesions, and the Prostate Imaging Reporting and Data System, version 2 (PI-RADS v2), a five-point scoring system that classifies lesions found on the mpMRI. Together, these tools are intended to soundly predict the likelihood of clinically significant prostate cancer. However, PI-RADS v2 scoring is subjective and does not distinguish clearly between intermediate and malignant cancer levels (scores 3, 4, and 5), often leading to differing interpretations among clinicians.

Combining machine learning with radiomics -- a branch of medicine that uses algorithms to extract large amounts of quantitative characteristics from medical images -- has been proposed as an approach to remedy this drawback. However, other studies have only tested a limited number of machine learning methods to address this limitation. In contrast, the Mount Sinai and USC researchers developed a predictive framework that rigorously and systematically assessed many such methods to identify the best-performing one. The framework also leverages larger training and validation data sets than previous studies did. As a result, researchers were able to classify patients' prostate cancer with high sensitivity and an even higher predictive value.

"By rigorously and systematically combining machine learning with radiomics, our goal is to provide radiologists and clinical personnel with a sound prediction tool that can eventually translate to more effective and personalized patient care," said Gaurav Pandey, PhD, Assistant Professor of Genetics and Genomic Sciences at the Icahn School of Medicine at Mount Sinai and senior corresponding author of the publication alongside co-corresponding author Bino Varghese, PhD, Assistant Professor of Research Radiology at the Keck School of Medicine at USC. "The pathway to predicting prostate cancer progression with high accuracy is ever improving, and we believe our objective framework is a much-needed advancement."

Story Source:

Materials provided by The Mount Sinai Hospital / Mount Sinai School of Medicine. Note: Content may be edited for style and length.

Journal Reference:

Bino Varghese, Frank Chen, Darryl Hwang, Suzanne L Palmer, Andre Luis De Castro Abreu, Osamu Ukimura, Monish Aron, Manju Aron, Inderbir Gill, Vinay Duddalwar, Gaurav Pandey. Objective risk stratification of prostate cancer using machine learning and radiomics applied to multiparametric magnetic resonance images. Scientific Reports, 2019; 9 (1)
DOI: 10.1038/s41598-018-38381-x

Upcoming Testing Events & Fundraising Events 2019

Thursday 21st March
King Georges Hall Blackburn (Masonic) G. Fulford and ELPCSG

Saturday 23rd March Preston F.C.
Walnut Group Preston

Saturday 6th April
Oldham F.C. B. Kilby and ELPCSG

Saturday 6th April
King Georges Hall Blackburn (Masonic) G.Fulford

Saturday 13th April
Farnworth Masonic Lodge ELPCSG

Wednesday 22nd May Winter Gardens Blackpool
(Masonic) G. Fulford

Saturday 1st June
Burnley F.C. B.Kilby and ELPCSG

All times , venues and involvement to be arranged nearer the events.

Men's testosterone levels are largely determined by their environment during childhood, according to new research.

Date: June 25, 2018
Source: Durham University

The Durham University-led study suggests that men who grow up in more challenging conditions where there are lots of infectious diseases, for example, are likely to have lower testosterone levels in later life than those who spend their childhood in healthier environments.

The study, published in *Nature Ecology and Evolution*, challenges the theory that testosterone levels are controlled by genetics or race.

As high testosterone levels potentially lead to an increased risk of prostate enlargement and cancer, the researchers suggest that any screening for risk profiles may need to take a man's childhood environment into account.

The study found that Bangladeshi men who grew up and lived as adults in the UK had significantly higher levels of testosterone compared to relatively well-off men who grew up and lived in Bangladesh as adults. Bangladeshis in Britain also reached puberty at a younger age and were taller than men who lived in Bangladesh throughout their childhood.

The researchers say the differences are linked to energy investment as it may only be possible to have high testosterone levels if there are not many other demands placed on the body such as fighting off infections.?In environments where people are more exposed to disease or poor nutrition, developing males direct energy towards survival at the cost of testosterone.

The researchers collected data from 359 men on height, weight, age of puberty and other health information along with saliva samples to examine their testosterone levels. They compared the following groups: men born and still resident in Bangladesh; Bangladeshi men who moved to the UK（London）as children; Bangladeshi men who moved to the UK as adults; second-

generation, UK-born men whose parents were Bangladeshi migrants; and UK-born ethnic Europeans.

Lead author of the study, Dr Kesson Magid from Durham University's Department of Anthropology (UK), said: "A man's absolute levels of testosterone are unlikely to relate to their ethnicity or where they live as adults but instead reflect their surroundings when they were children."

Men with higher levels of testosterone are at greater risk of potentially adverse effects of this hormone on health and ageing. Very high levels can mean increased muscle mass, increased risk of prostate diseases and have been linked to higher aggression. Very low testosterone levels in men can include lack of energy, loss of libido and erectile dysfunction. The testosterone levels of the men in the study were, however, all in a range that would unlikely have an impact on their fertility.

Co-author Professor Gillian Bentley from Durham University, commented: "Very high and very low testosterone levels can have implications for men's health and it could be important to know more about men's childhood circumstances to build a fuller picture of their risk factors for certain conditions or diseases."

Aspects of male reproductive function remain changeable into adolescence, up to the age of 19 and are more flexible in early rather than late childhood, according to the research. However, the study suggests that, in adulthood, men's testosterone levels are no longer heavily influenced by their surroundings.

Senior co-author Gillian Bentley and colleagues have also previously found that the environment in which girls grow up can affect their hormone levels, fertility and risk levels for reproductive cancers as adults.

The research was funded by the Economic and Social Research Council (ESRC), the Royal Society and Prostate Cancer UK, and involved researchers from the University of Chittagong (Bangladesh), Durham University (UK), and Northwestern University (USA).

Story Source:

Materials provided by **Durham University**. *Note: Content may be edited for style and length.*

Journal Reference:

Kesson Magid, Robert T. Chatterton, Farid Uddin Ahamed, Gillian R. Bentley. **Childhood ecology influences salivary testosterone, pubertal age and stature of Bangladeshi UK migrant men**. *Nature Ecology & Evolution*, 2018; DOI: 10.1038/s41559-018-0567-6

From Left to Right Hazel Goulding (Treasurer) Leon D Wright (IT Admin) Stuart Marshall (Secretary) Steve Laird (Vice Chairman) Dave Riley (Chairman)

Contact Information

Tel: 07548 033930
E Mail elpcsginfo@virginmedia.com

We are a group of local people who know about prostate cancer. We are a friendly organisation dedicated to offering support to men who have had or who are experiencing the effects of this potentially life threatening disease.

The East Lanc's Prostate Cancer Support Group offers a place for free exchange of information and help for local men and their supporters (family and friends) who may be affected by this increasingly common form of male cancer.

At each meeting we strive to be a happy, supportive and upbeat group of people; encouraging open discussion on what can be a very difficult and perhaps for some an embarrassing subject. We have lively, informative, interactive, sharing and above all supportive meetings.