

# PCRC NEWS



Science turning hope into reality

AUTUMN 2018

See page 7 for more about our  
Radio 4 appeal with Stephen Fry

A BBC RADIO 4 APPEAL 

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# IN THE NEWS

Naomi Elster completed a PhD in breast cancer in the Republic of Ireland. She investigated genetic changes in some cancers and moved a new therapy for women whose cancers stopped responding to existing drugs into clinical trial. She has also completed some work around healthcare policy, and developed a portfolio of science writing. Naomi joined the PCRC at the end of September as our Communications Research Executive. She will primarily work on improving PCRC communications, making the charity more patient-centred, and helping to develop the process for submitting and evaluating new research applications.

When Naomi is not writing about science, you might find her writing short stories, reading, visiting the theatre or an event where she can learn something interesting, or making excuses to get out of going for a run.



Dr Naomi Elster

Cancer is frightening. So much so that in August 2018, news hit the headlines that only 49% of people in the UK would go to the doctor if they found something that might be a symptom of cancer. The same survey, that interviewed 2,000 adults, found that 1 in 4 people wouldn't get a symptom checked due to fear of what a doctor might find.<sup>1</sup>

## The Turnbull and Fry Effect

A somewhat different development hit the headlines just two months later. In October 2018, NHS Chief Simon Stevens announced that many more people than usual were attending hospitals for prostate cancer treatment, and checking the NHS website for information. From April to July 2018, 3,929 patients received treatment for a urological

cancer compared to the same period in 2017, a 36% increase. In March 2018, the prostate cancer information page on the NHS website received 70,000 visits, a huge surge compared to the monthly average, which is closer to 20,000.<sup>2</sup>

Mr Stevens put much of this down to what he called "The Turnbull and Fry Effect" – celebrities Bill Turnbull and Stephen Fry speaking publicly about their experiences with prostate cancer. Stephen Fry recently met PCRC supporter Martin Dallison to launch the Stephen & Martin Appeal. You can read more about their collaboration in support of our scientific research on page 9.

## Immunotherapy

This year's Nobel Prize in Physiology or Medicine was awarded to Tasuku Honjo of Japan's Kyoto University and James Allison from the MD Anderson Cancer Center in the USA for their work on cancer immunotherapies. They each found proteins that acted like brakes, stopping the immune system from attacking cancer cells.<sup>3</sup>

By blocking these "brakes," scientists can help the immune system to attack cancer cells. Some scientists are working on testing this approach as a potential new treatment for prostate cancer.





A clinical trial of an immunotherapy drug called pembrolizumab, that is already used for lung cancer and melanoma, suggests this treatment may help some men with advanced prostate cancer live longer. A trial run by Professor Johan de Bono at the UK's Institute of Cancer Research was reported at the major American Society for Clinical Oncology (ASCO) conference in June. Results show 38% of men with prostate cancer who received the drug were still alive one year later, and 5% of men treated with pembrolizumab saw their tumours shrink or disappear.<sup>4</sup> This is a small number but also a potential breakthrough, because many immunotherapies have failed in advanced prostate cancer, for reasons that aren't yet understood. These results need to be treated with caution because this was a small, early trial, and much larger trials will be needed before we can be sure that any effects are real, or definitely due to the drug. However, immunotherapy has real potential to deliver a better future for advanced prostate cancer, as it could avoid toxic side effects, such as those associated with

chemotherapy. Key research challenges include finding out the most appropriate way to deliver immunotherapies, the most effective drugs to use and how to work out exactly which patients are most and least likely to respond to different kind of treatments. This kind of strategy (to group patients into categories that help predict the treatment that works best for them) is called personalised medicine and is used in other cancers. In advanced prostate cancer, however, we need to do more research to give scientists and doctors enough knowledge to be able to develop this approach.

### Immunotherapy

One of our PCRC projects focuses on immunotherapy. You'll soon be able to read much more about our research and the scientists working on our projects on our new website, [www.pcr.org.uk](http://www.pcr.org.uk).

<sup>1</sup> <https://www.theguardian.com/society/2018/aug/12/cancer-survey-britons-avoid-doctors>

<sup>2</sup> <https://www.bbc.co.uk/news/health-45795337>

<sup>3</sup> <https://www.sciencemag.org/news/2018/10/cancer-immunotherapy-pioneers-win-medicine-nobel>

<sup>4</sup> [http://ascopubs.org/doi/abs/10.1200/JCO.2018.36.15\\_suppl.5007](http://ascopubs.org/doi/abs/10.1200/JCO.2018.36.15_suppl.5007)





## Palladium in prostate cancer

In Scotland, researchers at both Glasgow's Beatson Institute and the University of Edinburgh are using the precious metal palladium to develop a pioneering new prostate cancer treatment that could dramatically reduce side effects.<sup>5</sup> Palladium does not in itself have an effect, but the researchers found a way to turn an existing chemotherapy, doxorubicin, into a 'pro-drug.' A pro-drug is a drug that does not become active until something specific is done to it. In this case, the doxorubicin pro-drug can be switched on when it comes into contact with palladium. In mice, researchers managed to implant palladium into the prostate, using ultrasound imaging. These mice were then given the inactive chemotherapy, which was switched on once it reached the palladium in the prostate. Although there is still a way to go before the treatment can be confirmed to be safe and effective in humans, it is an important first step. By delivering anti-cancer drugs directly into the tumour, it could stop the cancer from spreading, reduce side effects to the rest of the body, and even prevent the need for surgery in some patients.

## New radiotherapy

In another exciting development, this September, -65 year old Barry Dolling from Selsdon in Surrey became the first patient in the UK to receive a pioneering new type of radiotherapy. Mr Dolling was diagnosed with prostate cancer in April 2017 and signed up to the PRISM clinical trial at the Royal Marsden Hospital. The PRISM trial is testing the MR LINAC, a technology that can generate radiotherapy and MRI images at the same time. Prostate cancer often responds best to large doses of radiation delivered over a short time but, because of where the prostate is located, large radiation doses risk damaging the tissues around the tumour, including the rectum. The MR LINAC will make it possible to see the tumour and deliver radiotherapy at the same time, meaning that radiation therapy can be delivered to the tumour more accurately than ever before, and adjusted in real time. The PRISM trial is evaluating the use of MR LINAC in prostate cancer, but it could eventually improve radiotherapy of other cancers.<sup>6</sup>



<sup>5</sup> <https://www.scotsman.com/news/scots-scientists-use-rare-metal-to-develop-pioneering-treatment-for-prostate-cancer-1-4810095>

<sup>6</sup> <https://www.icr.ac.uk/news-archive/first-patient-in-the-uk-receives-pioneering-new-form-of-radiotherapy>





# LEAVE A GIFT IN YOUR WILL GIVE MEN AND THEIR FAMILIES A FUTURE

Never underestimate the power  
of hearing “there is a new type  
of treatment available”

Louise Milne, PCRC supporter

We believe in creating a better future for men with prostate cancer. Help us fund outstanding research and make this future a reality. By including a gift to the Prostate Cancer Research Centre in your will you will be funding world-class research that will help us find effective therapies for men with advanced prostate cancer.

If you would like to speak to someone about leaving a gift in your will please email Rachel Lund on [rlund@pcr.org.uk](mailto:rlund@pcr.org.uk) or call 0203 735 5445



Prostate Cancer Research Centre, 23-26 Great James Street, London, WC1N 3ES; registered charity number 1156027





# Better, safer, cheaper therapies for prostate cancer



Dr Aamir Ahmed

After completion of a prestigious Wellcome Trust Fellowship at the University College London, Dr Aamir Ahmed was recruited to lead the Prostate Cancer and Stem Cell Group at the same institution. The research group moved to the Centre for Stem Cell and Regenerative Medicine at King's College London in 2015. Aamir also acts as the Director of Research for the Prostate Cancer Research Centre charity.

If you are reading this, you already have an interest in prostate cancer, so I don't need to convince you of the importance of knowing more about this disease, which affects thousands of men in the UK, and millions across the globe. I also do not need to convince you that we need to work hard to find improved therapies to make life tolerable and disease free for prostate cancer patients. Here, I will discuss two important issues: 1. The costs of therapy and some of the factors that contribute to these costs. 2. The scope of research to achieve the twin objectives of better treatment and a search for a cure.

I would like to share the following figures with you. These relate to all cancers, not only to prostate: from 1965 to 2018 the cost of cancer drugs has increased from £36 per month to £8,000 per month. These new, expensive, drugs, however, don't work much better than drugs did 50 years ago as the survival improvement from these drugs has been suggested to be meagre (modified from Swanton, C, Journal of the Royal Society of Medicine, Vol 111, pgs 8-14, 2018).

One reason for these very high costs relates to how the pharmaceutical industry operates, the costs of drug development and of clinical trials. This includes



## HERE IS MY GIFT TO SUPPORT RESEARCH INTO PROSTATE CANCER

TITLE & NAME

ADDRESS

POSTCODE

TEL NO (in case of queries)

EMAIL

### GIFT AID DECLARATION

(boost your donation by 25p for every pound you donate)

☐ I want to Gift Aid my donation of £\_\_\_\_\_ and any donation I make in the future or have made in the past 4 years to the Prostate Cancer Research Centre. I am a UK taxpayer and understand that if I pay less Income Tax and/or Capital Gains Tax than the amount of Gift aid claimed on all my donations in the tax year it is my responsibility to pay the difference.

### I ENCLOSE A CHEQUE FOR THE SUM OF:

£18

£35

£75

£100

OTHER £

Please make your cheque payable to: The Prostate Cancer Research Centre

### I WISH TO DONATE BY CREDIT/DEBIT CARD:

11/18-N

Please delete as appropriate.

Please debit my Mastercard / Visa / Visa Debit / CAF Card / Other (please specify)

Card Holder's Name

For the sum of

Card Number

Start Date

Issue No

Expiry Date

Security Code

(last 3 numbers on reverse of the card)

SIGNATURE

DATE





Aamir works with artificially grown prostate cancer cells in the lab to gain insights into how the disease works, and which therapies might be useful in humans.

testing for safety and toxicity of new drugs. With the NHS budget under severe strain we need to think of innovative ways of conducting medical research to discover better, but also cheaper treatments. In our laboratory this demanding situation is not a counsel for despair but a call to arms to meet this challenge and this is where the scope of our research (and how it is funded) comes in.

### The complexities of cancer

Cancer is a complex and constantly evolving disease that requires a continued and sustained effort to tackle. Cancer develops in an organ, like the prostate, by utilising fundamental mechanisms that are sometimes similar in normal cells. It therefore follows that to understand the disease, one must also understand how cells within the prostate work. Over many decades of research efforts, we have made incremental and steady progress in both understanding the normal and diseased behaviour of many organs including prostate. This, like any other human endeavour, requires both financial and human resources.

The state of scientific research in general in the UK is a burgeoning one. The vast majority of basic research that gets translated into treatments is conducted in government funded universities. These institutions host laboratories like ours, and require financial resources for the people and infrastructure they need to turn an idea into a treatment. In the form of pharmaceutical industries, the private

sector also plays its part. It takes a long time to train researchers and attract them to a particular

area of research, such as prostate cancer. From a research funding perspective, prostate cancer is a neglected area, hence the need for charities, such as the Prostate Cancer Research Centre, to support research. Progress in our understanding of the organ and the disease has only been possible by the generosity of patrons like you and many others who have selflessly supported the cause of improving our understanding and treatment of prostate cancer.

### Drug repurposing

So how are we tackling the twin problems of complexity and cost? One aspect of research in our laboratory is focused upon drug repurposing, which is also known as indication expansion or re-profiling. In essence, the process involves discovering new uses for existing drugs. Drugs that have been in clinical use to treat diseases other than cancer can be repurposed to treat cancers; one advantage of this approach is that the safety of these drugs has been tested in large populations, which can cut down the time for testing these in clinical trials. An example of this would be metformin, which was originally used for the treatment of type 2 diabetes but has been in clinical trials to treat breast and prostate cancers. A second advantage in some cases is that the repurposed drugs are relatively cheap, because they could be out of patent.

We discovered that a class of drugs that are in common clinical use for diseases other than cancer, may be repurposed as a safe and cheap therapy for prostate cancer. A number of these are also out of patent. We are at an early, pre-clinical, stage but are very excited and hopeful. In the next few years, with the continued support of the PCRC, we hope to proceed swiftly towards preparing the repurposed drugs for clinical trials for prostate cancer. It is stating the obvious to say that if it were not for the commitment, goodwill and hard work of readers like you the state of research into prostate cancer would be much poorer both scientifically and financially. Thank you for your kindness.



# SPOTLIGHT ON PCRC RESEARCH

## Sharpening our focus

The PCRC is the only UK charity solely focused on researching advanced prostate cancer. Our mission is to use science to turn yesterday's hope into tomorrow's reality, so that the next generation of men have better therapies, enabling them to live longer and happier lives. Scientific research, along with our community of patients, carers and supporters, are at the centre of all we do. We recently started an ambitious five year strategy, which will help us deliver substantially more investment into research. We are a small charity, but this year we spent over £1 million on research for the first time in a single year. As we continue to grow, we hope to invest even more. This year we are funding four research projects; next year we will fund seven.

But it's not enough for us to simply fund research. We will fund the very best research, the research that has the most meaning for men with advanced prostate cancer and their families. We are currently

reviewing our research strategy and our Scientific Advisory Committee (SAC) will publish a new edition in early 2019.

We are also undertaking in-house research to gain a stronger, more up-to-date understanding of what our community needs and wants from the PCRC. To kick-start this research, we are launching our Patient Voices project. As existing supporters, we are inviting you join the project by completing the short survey included with this newsletter and return it by freepost. We have also provided you with a slip to register your details if you are interested in learning more or taking part in future community focused research.

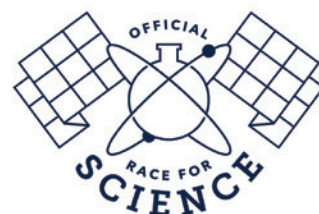


## Abcam supports PCRC's new event Race for Science

We are delighted that life-science company Abcam has decided to support PCRC by sponsoring Race for Science, our brand new scavenger-hunt fundraising event. Abcam produces assay kits, reagents, and antibodies for life-science researchers across the globe, so they can achieve their mission faster. Abcam is a pioneer in data sharing and e-commerce in the life sciences.

Race for Science is an immersive, scavenger-hunt style event in which teams follow clues across Cambridge to decipher a series of scientific puzzles. It's a race against the clock to solve the mystery of the missing scientist and save prostate cancer research! It's a truly one-of-a-kind event, and we're so excited that Abcam is joining us a feature sponsor for Race for Science's first year.

Please visit [www.raceforscience.com](http://www.raceforscience.com) to find out more.



**abcam**



## A BBC RADIO APPEAL

# The Stephen & Martin Appeal



A BBC RADIO 4 APPEAL 



**Radio 4: Sunday 16<sup>th</sup> December at 07.55**

We are very proud to announce that comedian, writer and presenter Stephen Fry has teamed up with our great friend, supporter and all round adventurer Martin Dallison to raise awareness of prostate cancer and the need for new treatments through our BBC Radio 4 Appeal this December.

## The importance of testing

The Stephen & Martin Appeal hopes to encourage men over the age of 45 to get themselves checked for prostate cancer, and to raise vital funding for PCRC research into new treatments. Stephen Fry discovered he had prostate cancer after his GP gave him a PSA test during a routine check-up. PSA is a protein that the prostate gives out when it is under attack from cancer. Luckily for Stephen, his cancer was caught early and he was able to have surgery. The whole experience has made him appreciate how vital the work of the PCRC.

Martin Dallison was not so lucky. He was not offered a PSA test. As Martin said, 'You don't know what you don't know.' Like thousands of men, he had no knowledge of prostate cancer. When at 52 he started to have symptoms, they were unrecognisable to him. With the cancer now having spread aggressively elsewhere in his body, making it incurable, Martin hopes to encourage more men to become better informed and to increase funding for research to help future generations.

***'Through this appeal we are making sure men in the late stages of prostate cancer have a greater chance of a better outcome because of the work of the Prostate Cancer Research Centre.'* Stephen Fry.**

## A breakthrough treatment

Every year over 45,000 men in the UK receive a diagnosis of prostate cancer. One in three of these cases are inoperable. Raising awareness of prostate cancer is only half the battle. The other half is finding treatments to fight it.

Dr Christine Galustian, one of the charity's lead scientists, has identified a way to stimulate the immune system to attack prostate cancer cells, leaving normal cells alive. Christine and her team have successfully reduced tumour growth by 60% in the lab. All money from our Radio 4 Appeal will go directly towards moving this project towards being tested in men. With enough support, this could happen as early as next year. Every single pound donated to the Stephen & Martin Appeal will be match funded up to £10,000 between 16<sup>th</sup> and 23<sup>rd</sup> December 2018.

## How you can help



**Tune in:** Listen to the appeal on BBC Radio 4 on Sunday 16<sup>th</sup> December 2018 at 07.55 or 21.26 and Thursday 20<sup>th</sup> December at 15.27.



**Tell people:** Please help to spread word of the appeal with friends, family and colleagues.

We are very sorry to report that Martin passed away soon after this article was written. PCRC extends our sympathy and condolences to Martin's family.



# MEET THE TEAM



**Lauren Ward**

Events and Fundraising Executive

My role at PCRC is Events and Fundraising Executive, although Oliver (CEO) has joked that I could be our Happiness Executive! I help in the running of our charity events, but I am mostly responsible for supporting our fundraisers and events participants, and ensuring that they have the best possible experience taking part for PCRC. This could be anything from ensuring the merchandise you need has been sent to you, to cheering you on through a race, or simply just having a chat with you on the phone about how you'd like to be involved. Whatever you need, I will try to make it happen!

The thing I love most about my job is how many incredible, inspiring people I get to interact with on a daily basis. I get the opportunity to make people smile and to increase that warm fuzzy feeling of connection you feel towards PCRC. I also get to witness people doing amazing things, like climbing a mountain or running a marathon, which motivates me to get a bit more active too.

My best memory of working at PCRC so far has to be our Snowdon 500 and Welsh 3 Peaks Challenge this year, where participants not only sought me out to thank me



for my support (I sent them a lot of emails!), but also where one of our walkers cried with pride after having completed the challenge. It's overwhelming to see how much our fundraisers care about what they are doing, and it was rewarding to see how my work was appreciated and actually made an impact on these walkers and their experience.

What I'd like you to know about the charity is that while we may be small, this only makes us a much more people oriented organisation – we care about every single supporter, we remember you, and most importantly we care about the impact our research will have in the future. We rely on people like you to keep supporting our work; without your help, we wouldn't be able to grow, like we are growing now!





# A BIG THANK YOU!

## #Team PCRC

### HUGE THANKS TO OUR PCRC RUNSTERS

Steve Brown's father Mick died as a result of advanced prostate cancer, and Steve has low-grade prostate cancer himself. After being diagnosed, Steve took a positive approach, and with the help of his wife Irene and their best friend Sue Bond they started fundraising for PCRC. Steve was a part of the 2018 London Marathon team and since then they have started the PCRC Runsters group.

PCRC Runsters organise a Couch to 5k course as well as other running classes. Their upcoming events will include a 5k relay, Beccles 10 mile Turkey Trot, Norwich Half Marathon, Cambridge Half Marathon, and the Steve and Sue London Marathon.

Apart from the running club, they organise many street collections in North Walsham market as well as local supermarket awareness days. From all of us here at PCRC, we'd like to express our sincere thanks for your continued support and commitment.



PCRC Runsters



### RUNNING FOR ED

An incredible team of runners recently took on the Antrim Coast Causeway Half Marathon in memory of Ed McCambridge, who fought a courageous battle with prostate cancer before he passed away on 14th July 2018. Ed's family and friends, including his wife Jackie, ran for PCRC and raised an incredible £23,815. This is such a huge amount that goes a long way at PCRC. Ed firmly believed the future of treating advanced prostate cancer was with immunotherapy, that is one of our four current projects, led by Dr Christine Galustian. Through this research, we can bring hope to others experiencing what Ed and his friends and family have been through.

We would like to thank and extend our condolences to Adrian, Alan, Ali, Annie, Chris, Ciaran, Connor, Damon, Dee, Donal, Elizabeth, Ella, Fergus, Jackie, James, Joanna, Louise, Mary, Molly, Peter, Rachel, Sarah and Tanya.



# TAKE ON A CHALLENGE IN 2019

## Thames Bridges Trek – 7<sup>th</sup> September 2019

PCRC trustee and leading urologist Professor Prokar Dasgupta will be leading a team of walkers on a 25-km trek across 16 of London's landmark bridges, finishing up with the majestic, 'world famous' Tower Bridge. Along with recruiting West End choreographer Sir Matthew Bourne and other well-known celebrities, we are looking for PCRC supporters to sign up and make this challenge a success. The event is on 7th September 2019 and is a fantastic way to see the capital while raising funds and awareness for new treatments for prostate cancer.

Whether it's Big Ben, the London Eye, or Tower Bridge, you'll be able to tick off London's most famous landmarks as you walk this fantastic route. Join over 3,000 walkers of all ages and experience for an unforgettable challenge, giving you a lifetime experience to remember.



Professor Prokar Dasgupta

### Highlights and Features

- Fully supported 25 km walk
- Fully signed route with arrows
- Join as an individual or a team
- Start near Putney Bridge, finish at Tower Bridge
- Tented village and 'warm up' at start
- Flexible 9.00 am to midday start times
- Mid-point rest stop
- Free snacks and drinks
- Medal, T-shirt, buffet food at finish



### Registration fees and fundraising amounts

We have three sign-up options to suit your fundraising targets.

#### 'Charity funded' option

£5 registration fee and £245 minimum sponsorship

#### Mixed funding option

£29.50 registration fee and £120 minimum sponsorship

#### Self-funding option

£79 and set your own target

#### How to sign up and not miss out

Visit the website <https://www.ultrachallenge.com/thames-bridges-trek/how-to-join>

If you have any queries, please call the Events Team on 0203 735 5446

## Feeling inspired?

To find other events and ways to fundraise for PCRC, please visit: [www.pcr.org.uk](http://www.pcr.org.uk) or call us on 0203 735 5446.