

# PACEMAKER

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12 PAGES

## Eighteen and diagnosed with cancer: what next?

By Olivia Holtermann Entwistle

In May of this year, Stephen Sutton, a teenager from Staffordshire passed away after a four-year battle with colorectal cancer, leaving over £4,000,000 that he raised to the Teenage Cancer Trust (TCT). But his legacy will no doubt come to be far more than this: his story has served to highlight the plight of teenagers with cancer, who have only in recent years come to be seen as a special group of patients with specific needs.

The TCT has been instrumental in this change, and in an effort to find out more about its work Pace-maker spoke to Kelly Scott, an Education Manager at the trust and herself a survivor of cancer, about her experience and the work the trust is doing to change the way we care for teenagers with cancer.

In January of 2001 Kelly woke up with a paralysing pain in her side; 'I was eighteen, studying for my A-levels and distracted by university applications' she told us. 'I had felt tired over the past few months but

thought nothing of it, even on that morning I was more worried about missing an A-Level mock'. Like many teenagers Kelly didn't go to the doctor very often and at this point didn't fear that it was anything serious; perhaps a ballet injury or appendicitis?

'We went to the doctors surgery and, although the doctor was lovely, he was quite old and I was afraid he wouldn't understand what was

wrong with me. He also asked me bluntly if I was pregnant, a question I wasn't expecting to be posed in front of my mum!'

About a week later Kelly was called for an ultrasound and here began the treadmill of doctors appointments and tests. 'Afterwards we got a call asking us to come for a CT scan at a specialist cancer hospital. They confirmed they had found a mass and diagnosed me with non-

Hodgkin's lymphoma. I remember not having any idea what the diagnosis meant. I told my friends afterwards that, yes, they had found something but not to worry as it wasn't cancer'. Later the diagnosis was properly explained and a treatment plan put into action.

'After my first round of treatment I had another CT scan that showed the cancer was a rarer type than they first thought and suddenly

my treatment went from 18 weeks of outpatient care to 18 months, with 4 months as an inpatient. At the beginning I was quite unaware of what was going on as the treatment was so strong and in a way this was easier. Later as I became more switched on I was suddenly aware that all my friends had gone off to university and I hadn't. My school was fantastic and arranged for me to sit my exams at home, and I came out with three A's'.

Throughout this time Kelly was treated on an adult ward, as there were no specialist teenage cancer units in her area. It was at this time that the TCT got involved and Kelly helped them to set up one of their first units. 'Whenever they set up any new unit they ask for patients input and that in itself was great. I felt so useless and had lost a lot of confidence, it was amazing to be asked my opinion and to feel as though I was being helpful. I was quite isolated and sadly a lot of my friends found it very difficult to deal with'.

CONTINUED ON PAGE 2



## The NHS Five Year Plan

By Cressie Moxey

The Five Year Forward View, produced by NHS England, sets out recommendations for health services in England to adopt by 2020-21.

In light of the review's estimate of an annual £30bn funding gap that would open up in the next parliament, the plan aims to create a more sustainable and integrated health-care system within a programme of long-term investment.

Simon Stevens, Head of NHS England, has suggested a range of recommendations and practical examples as to how the NHS can make

substantial contributions to closing the £30bn gap. The key areas sited for action include obesity, alcohol and other major health risks, with an emphasis on prevention and public health.

One of the biggest contributors to the £30bn shortfall is the rising number of people being admitted to hospital.

Much of what has been proposed points towards expansion of preventative care as well as improvements of patient care within the community.

CONTINUED ON PAGE 4

## Paralysed Man Walks Again

By Cressie Moxey

38 year-old male from Poland, Mr Darek Fidyka, was left with a complete loss of sensory and motor function from the chest down following a knife attack in 2010. Having been repeatedly stabbed in the back, Fidyka had an 8mm gap on the left side of his spinal cord and resultant paraplegic paralysis. Before treatment, Mr Fidyka had been paralysed for almost 2 years with no sign of recovery, despite many months of intensive physiotherapy (5 hours-a-day, 5 days-a-week).

While previous techniques have

managed to 're-direct' nerve signals around damaged sections of the spinal cord, Mr Fidyka has undergone pioneering treatment to directly repair damage to the spinal cord.

Treatment, carried out by surgeons in Poland with the collaboration from scientists in London, used olfactory ensheathing cells (OECs) to repair the 8mm gap in Fidyka's spinal cord. OECs enable nerve fibres in the olfactory system to be continually renewed, this being the only part of the nervous system that regenerates throughout life. Molecules carrying different odours in

the air come into contact with nerve cells in the nose, which transmit messages to the olfactory bulbs at they very top of the nasal cavity and at the base of the brain.

Nerve cells are being continually damaged and must be replaced. The process of regeneration is made possible by OECs, which act as pathway cells and provide a pathway for fibres to grow back.

In the first of two operations, the surgeons in Poland removed one of the patient's olfactory bulbs and grew these cells in culture.

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WESLEYAN

## Eighteen and diagnosed with cancer: what next?

By Olivia Holtermann Entwistle

CONTINUED FROM COVER - Kelly finished her treatment in 2002 and continued to work actively with the trust. 'I knew after what had happened I wanted to study in London so that I could be near the TCT base. I already knew I wanted to write my dissertation on comparing the experience of being treated on an adult ward to being treated on a teenage ward.' After graduation Kelly joined the trust's education team. 'I had always wanted to work for the trust and this role seemed to bring together all my interests and the chance to give back to the organisation'.

The trust has a broad range of goals, education being one of most important. Going into schools and raising awareness of cancer in young people is something that is prioritised by the TCT. 'One thing I would like to pass on to you as doctors of the future is to not ignore the possibility that sometimes it will be cancer and not something minor'. But its also important to show that cancer isn't a death sentence. Kelly explained, 'I want to show people that it happened to me and I am ok. I think having examples of people recovering is so important and can give people a lot of hope.'

Another extremely important facet of the trust's work is to establish specialized teenage cancer units. Previously teenagers were in limbo, either treated on paediatric or adult wards, neither of which could really meet their social and emotional needs. 'When I was on an adult ward I didn't meet a single other teenager with cancer and felt as though I was the

only one. I also found it difficult with visitors; my sister couldn't bear to come and visit me because she didn't like seeing the other sick people. At the time in your life when friends are most important it's dangerous to put someone in an environment where their friends are afraid to come and see them. The wards set up by the trust have great common areas and are designed especially to encourage socialising.

They really try to consult young people on what they want out of a ward and try to maintain a bit of the independence young people want by having kitchens, work stations and individual TVs and computers'. These wards care for patients between the ages of 16-24 and have specially trained nurses all geared towards helping teenagers get through their treatment whilst still having the chance to be young.

'I wish that I had been on a ward like this from the beginning' Kelly told us, 'it would have made me feel a lot less alone and have made it easier for my family and friends to come and visit. I am really pleased that nowadays a lot of young people are getting the right kind of care'.

Find out more about the Teenage Cancer Trust on: <https://www.teenagecancertrust.org/>

To learn more about their education programmes, see: <https://www.teenagecancertrust.org/what-we-do/education/>

To make a donation, see: <https://www.teenagecancertrust.org/get-involved/make-a-donation/instant-donate/>

## NHS Strike



By Olivia Holtermann Entwistle

On 13th October thousand of NHS staff, including nurses, porters and midwives, staged a nationwide walk-out in the first such industrial action for 32 years. The strike lasted from 7-11am, and unions maintain that urgent care was unaffected. It follows

the revelation that the real value of NHS pay has fallen over the past five years, placing many workers under severe financial strain, amongst other concerns. Staff at MRI picketed Oxford road for the three hours of the strike and were joined by students from the Save Our NHS campaign.

## Faculty Representative Elections

By Olivia Holtermann Entwistle

Congratulations to Emma Runswick and Alicia Pawluk, both medics, who have been elected as MHS faculty officers, charged with reporting the views of the student body to the Students Union.

Amongst their aims are to improve the provision of welfare and support for students, separate mental health issues and professionalism concerns and improve teaching and understanding of LGBTQ issues.

Good luck!

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Empowering Knowledge

# Movember at Manchester & CATS

By **Nicholas Pearson**

Gender is one of the strongest and most consistent predictors of negative health outcomes. In the UK the average life expectancy for men is nearly four years less than women. Men are 14% more likely to develop cancer than women and 37% more likely to die from it.

This is partly due to lack of awareness and understanding of the health issues men face, and men not openly discussing their health and how they're feeling.

The Movember Foundation tries to address this by helping to fund programs of awareness and research into men's health issues.

By using the moustache as a catalyst, the aim is to change the face of men's health by putting a fun twist on this serious issue. This year's Movember fundraising at the

University of Manchester is being organised and supported by CATS (Cancer Awareness in Teenagers and young people Society).

We have a lecture on men's health by the consultant urological surgeons Ben Grey and Richard Napier-Hemy from MRI (date TBC) to give an insight into the clinician's perspective.

There's still time to get involved and help raise money for Movember. If you want to become a Mo Bro or Mo Sista and join a team to fundraise with, information about how to sign up is available on the "CATS Manchester" and "Movember at Manchester" Facebook pages.

When you join the campaign, CATS have put together Movember cards that will get discounts at local bars and restaurants.

You can also enter the Mo of



the week competitions by posting pictures of your facial hair exploits on the "Movember at Manchester" page for the chance to win some great prizes.

At the end of Movember, there

will also be a night out in 256, with the crowning of Mr. and Miss Movember and the best team, as well as more great prizes and offers!

Bring together your fellow Mo Bros and Mo Sistas, get it grown,

and help change the face of men's health this year.

[Editor's note: Pacemaker is looking forward to publishing some pics from Mo of the Week so get posting!]

## Manchester Marrow: Be a match, Save a life

By **Niall Byrne**

Manchester Marrow is the student society of the Anthony Nolan trust at Manchester University. After being reformed last year we've been active organising lots of events around campus.

For many people with blood cancers such as Leukaemia, finding a matching bone-marrow donor from within their family is not possible, so they need to find a suitable match on the Anthony Nolan bone marrow register.

However, only 60% of people are able to find a best-possible match donor, and this statistic falls to 20.5% of patients from a Black or ethnic minority background. At Manchester Marrow we are working to recruit as

many people as possible to the register to increase the chances that patients can find a lifesaving matching donor when they need it. Last year 13,500 people were signed up to the Anthony Nolan register by university Marrow groups, 20% of the total number of new donors.

So far this year, we have had a stall at fresher's fair generating a lot of awareness, and have run two volunteer training events. This allowed us to organise three very successful registration clinics in Owen's park, in the Student's union and at the Royal Northern College of music. As a result, we have already recruited over 140 to the register.

However, we have big plans for the future and are looking for vol-

unteers to help. Upcoming volunteer training sessions will allow us to increase the number of recruitment clinics we will be running around campus and at local sixth forms through the year. And for those who are good with a charity bucket, plans are afoot to run a fundraising session before Christmas. Getting involved with Manchester Marrow gives you the real opportunity to help save lives.

Our next recruitment clinic will be in the Student's Union on Friday 10/11/2014. For more information visit us at our Facebook page- [www.facebook.com/ManchesterMarrow](http://www.facebook.com/ManchesterMarrow), follow us on Twitter- #mancmarrow, or email us at [marrowmanchester@gmail.com](mailto:marrowmanchester@gmail.com)



**BE A MATCH, SAVE A LIFE**

### Personal Experience: A word from Manchester Marrow President

By **Ryan Tunstall**  
Manchester Marrow President  
and PhD Student

As a 21 year old undergrad I was diagnosed with acute lymphoblastic leukaemia. I was incredibly lucky to find a lifesaving donor and I received

a hematopoietic stem cell transplant on Valentines Day 2012.

Sadly many other patients are not able to find a donor; something that Manchester Marrow is working to change by signing people up to the Anthony Nolan register.

The more people that sign up to the register, the more people will beat blood cancers like me.

Read more about my story next month, and in the meantime sign up to the register with Manchester Marrow.

## Upcoming Society Events

**SATURDAY, 15 NOVEMBER**

Masterclass: health systems in low and middle income countries

**WEDNESDAY, 19 NOVEMBER**

6:00pm - HEAL's Palliative Care Evening

6:30pm - Clinical Neurology Lecture on Dysfunction in Dementia

**THURSDAY, 20 NOVEMBER**

7:00pm - Medsoc Lecture on Clinical Audit

**MONDAY, 24 NOVEMBER**

Public Health OSCEs and Progress

**WEDNESDAY, 26 NOVEMBER**

7:00pm - Medsoc Lecture on The Electives Survival Guide

**FRIDAY, 28 NOVEMBER**

8:00pm - Medsoc presents The Winter Formal

**SATURDAY, 29 NOVEMBER**

9:00am - Year 4 Neurology OSCE Revision Day

10:00am - Year 4 Obs/Gyn OSCE Revision Day 1

**SUNDAY, 30 NOVEMBER**

10:00am - Year 4 Obs/Gyn OSCE Revision Day 2

**SATURDAY, 06 DECEMBER**

09:00am - Scalpel's Finals Revision Day

**Want to feature your society's events in the next issue?**  
Email Yousef at [pacemakerdeputyeditor@gmail.com](mailto:pacemakerdeputyeditor@gmail.com).

## The NHS Five Year Plan



By Cressie Moxey

CONTINUED FROM COVER - New organisational models for the NHS suggest integrating GP practices with hospitals to create acute care systems. GPs will work more closely with nurses, hospital specialists and other community healthcare services to form multi-disciplinary out-of-hospital care teams. It is hoped that some of these changes to service delivery, such as plans to offer hospital services at GP practices, will also provide solutions to some of the current problems faced by GPs.

Whilst the NHS is able to implement some of these changes, some

will require input from the government. The changes carried out within the NHS could help reduce the funding gap by £22bn a year, but the government would need to invest an additional 1.5% above inflation each year (£8bn in total) to close the gap completely.

The current NHS budget stands at a sum of £100bn a year, however the NHS still needs to find the additional £8bn if the service is to continue operating at its existing standard. If that money cannot be found, then either the NHS will have to reduce the services it provides, or the quality of its care will decline.

## Paralysed Man Walks Again

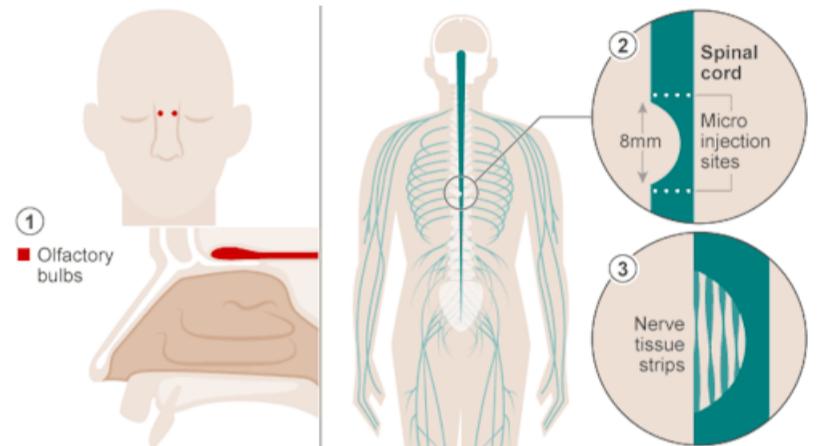
By Cressie Moxey

CONTINUED FROM COVER - Two weeks later, about 500,000 OECs were transplanted into Fidyka's spinal cord, using about 100 micro-injections of OECs above and below the site of injury. Following this, four thin strips of nerve tissue were taken from the patient's ankle and placed across the 8mm gap on the left side of the spinal cord.

The scientists believe that the OECs provided a pathway that enabled the fibres above and below the injury to reconnect, using nerve grafts to bridge the gap in the spinal cord. It was first noticed that surgery had been successful after about 3 months, when the left thigh began to gain muscle mass. Scientists believe this is evidence that the recovery is due to regeneration, as signals from the brain controlling muscles in the left leg travel down the left side of the spinal cord.

Six months after surgery, Mr Fidyka was able to take his first steps along parallel bars using leg braces and with the assistance of physiotherapists. Now, two years on, he has improved trunk stability, can walk with a frame and has also recovered some bladder and bowel sensation as well as sexual function.

Fidyka described the ability to



walk again using a frame as “an incredible feeling” and added, “When you can't feel almost half your body, you are helpless, but when it starts coming back it's as if you were born again.” All those involved in the research are keen to not raise false

hopes in patients. They highlight that success will need to be repeated to show definitively whether this technique can be used to stimulate spinal cord regeneration. Scientists hope to treat another 10 patients in Poland and Britain.

## Pathology Bsc: Not just dead people

By Hamish Bain

Throughout your medical school career, you will discuss PBL topics with a huge variety of medics. Most medics manage to have an eloquent discussion about a case, and cover most of what they need to know to pass the exam. Some medics are quite happy to head down to Sankey's on Thursday nights before PBL, print out Hani's notes, and then dictate them in such an unenthusiastic tone it's as if they've had a botched thyroid surgery. And then, there's the most intolerable type of medic: the one who makes jokes about recurrent laryngeal nerve palsy.

These medics turn up to PBL with so many scribbled notes on molecular biology you'd think crazy bus lady was handing them out at OP! They tend to talk about some kinase or transcription factor you'd put in the “Nice To Know” category never to be glanced at ever again. Why are they banging on about such a niche aspect of cell biology?

Well the answer to this question is that these nerds have a key characteristic for understanding medicine: curiosity.

By curiosity I don't mean that they'll occasionally pop down to Canal Street on a Saturday night; they're more monocurious. What I

mean is that they will always ask the question, “Why?”

When looking at diseases, in order to understand any of the signs or symptoms, you must answer the fundamental question of why the disease occurs at all. To do that you must first study normal function in as much detail as you can; if you've gone deep enough, when you look at the pathology of the tissue, the defect fits right into your understanding of normal function. This has particular relevance in cancer growth and metastasis (spread). An interesting example of the process of understanding disease is TGF-β's role in cancer.

Transforming Growth Factor B (TGF-β) is one of the most versatile proteins you'll come across in the literature. If it binds to a certain type of cell it can cause cell survival; bind to a different one and it will result in cell death. How can one signal cause two effects that are completely opposite? The answer lies in the receptor it binds to and the proteins within the cell.

When TGF-β binds to the TGF-β receptor on the outside of the cell, it changes the structure of the part of the receptor inside the cell so that it now has a phosphate group attached. This new structure is recognised by proteins called SMADs, each of which can cause expression of a va-

riety of genes. Some of these genes promote cell survival, others cell death. So, from this you can see that by having different SMADs or receptor types, you can change how a cell responds to the TGF-β external signal. Thus mutations in SMADs or TGF-β receptors as seen in colorectal cancer (SMAD2/4 and TGFβ type II receptor) appear to either reduce TGF-β's ability to kill cells, or increase its ability to produce cell division, resulting in uncontrolled growth.

The SMAD mutations have other oncological effects due to TGF-β's role in cell motility and therefore metastasis.

For example, SMAD gene targets can code for adhesion proteins such as N-cadherin, which begins to transform the cell into mesenchyme rather than epithelium. This epithelial mesenchymal transition (EMT) means that the cell goes from being an epithelial cell that is fixed in place by adhesion molecules (e.g. e-cadherin), to a detached free cell that can now move around the extracellular matrix. In colorectal cancer, mutations in the SMAD proteins tend to show up quite late, just before the cell undergoes metastasis. Thus it is likely that these mutations are involved in signalling events that determine a cell's motility (e.g. EMT), therefore promoting tumour

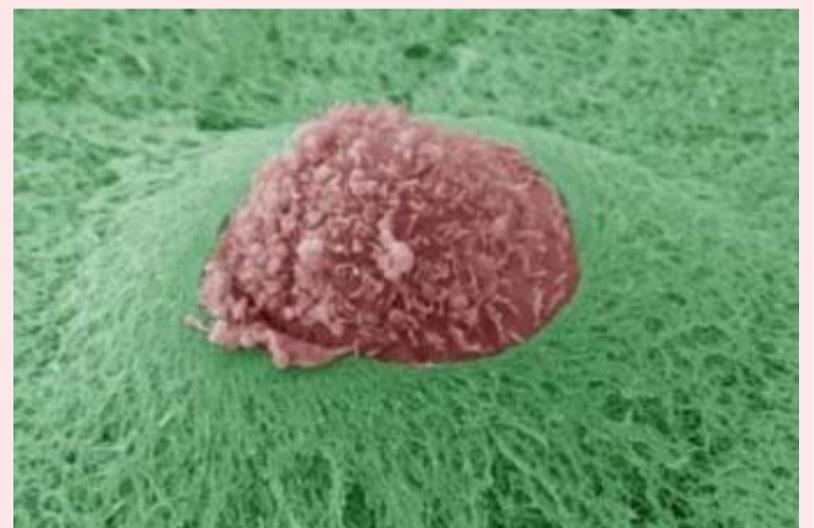


Figure 1 Shows a breast cancer cell invading a synthetic basement membrane. TGF-β receptors have been implicated in this metastatic change as discussed below [1]

cell metastasis.

The fact that a single growth factor can have such a huge variety of effects on different tissues is remarkable! What's more, this is only one small example of the complexity of oncology!

Taking a year out of medical school to study science in more detail is an amazing idea if you want to really understand why diseases happen, which in turn explains how they present in the clinic and how they are treated.

If you like oncology, or found the part about TGF-β interesting at all, I'd strongly recommend the Pa-

thology Bsc (Hons) program for your intercalation as there is a large oncology module that will give you an insight into just how interesting cancer biology really is. Or you could just go to Sankey's every Thursday and “enjoy” your life. I'll finish with a key question to think about if you're considering intercalation: why not?

Ref: 1) Curie Institute. “Breast Cancer: How Tumor Cells Break Free And Form Metastases.” ScienceDaily. ScienceDaily, 5 July 2008. [www.sciencedaily.com/releases/2008/07/080704110455.htm](http://www.sciencedaily.com/releases/2008/07/080704110455.htm) accessed 27/10/2014

# Breaking bad news: *My first experience*

**By Henry Galletta,**  
4th year at MRI currently intercalating in BSc Pathology

Breast cancer clinics are a strange environment. Due to recent advances in therapies, as well as excellent public health initiatives and screening, many patients have very good outcomes. This means that the majority of the consultations I saw when on my PEP at the Christie were follow-ups with cheery, cancer-free women. The majority.

As I started the placement my supervisor had just returned from maternity leave. She was kind and chatty. I was enjoying the first week.

Then it happened. As the oncologist examined the next patient's notes mid-way through Friday morning clinics she tutted under her breath.

It was a small, disappointed noise. The sort of noise you'd make when you burnt your toast or realised your milk had gone off. She turned to me and said, "She's not responding to treatment."

I didn't register that as a "breaking bad news" scenario. The breast team seemed so carefree. Everyone seemed to be doing so well. But this patient had an aggressive, inoperable cancer that was not responding to chemotherapy. She was going to die in a mat-

ter of months.

Oblivious, I followed the Consultant into the clinic. The patient, a grey haired lady in her late 50s, smiled at me and gripped her husband's hand as we sat down.

Upon hearing that the test results were back the patient asked, "Is it good news?" Without breaking a step the oncologist replied, "I'm afraid it's not."

I was surprised by her tone. She wasn't grim faced or on the brink of tears.

She was smiling. Her voice had the same soothing, kindly timbre as before; her face the same well-meaning-yet-slightly-detached smile; she wasn't truly connecting.

A glass wall had slid down between her and the patient that shielded her from the anguish and fear the results had induced. The patient listened, blinking back tears. She was told there was more we could do, more drugs to try, but also not to expect a miracle, and that the Macmillan nurse would council them about the next steps. We left and got out the next patient's notes.

I'd always imagined breaking news like this to a patient as emotionally wracking - I'd cry, they'd cry, I'd promise them I'd do all I could, they'd tell me what a good doctor I was and I'd go home feeling a sense of grim pride that I'd made a difference, albeit a small one.



In reality, these encounters are exhausting. To tell people they're dying on a daily basis, you can't really feel their pain.

You can understand it, empathise, but you can't experience it with them. You have to recognise your own limitations: if you were to truly feel the suffering of every patient whose cancer refused to respond you wouldn't last long.

This is one example of the myriad ways in which an oncologist relates unfavourable outcomes.

What struck me was how in-her-stride my supervisor took it.

I admired her ability to provide the patient with everything she could while also making sure she looked after herself; a skill we all need.

## The Manchester Medical Research Student Society



Manchester Medical Research Student Society

**By Josh Burke,**  
MMR Soc President

Manchester Medical Research Student Society was founded to foster interest in medical research amongst medical students. Although we are studying in an age of evidence based medicine, this area is only a very small part of the medical curriculum, and we are aiming to fill that gap.

We are striving to provide medical students of Manchester with research opportunities. We are currently in the process of setting up a research placement database which will be accessible to all MMS students, so as to gain exposure and experience in a research environment. We have teamed up with Scalpel to bring you the second Student National Research Collaborative in Surgery, which has seen 50 medical students in 10 centres take part in a national audit. This is a record for Manchester.

We are currently playing a large role in forming the new Manchester Medical Journal with MMS which will see medical students

trained in critical appraisal and asked to take part in a new, original peer review process.

Our Inspire Lectures have proved incredibly popular and we are finalising plans for the first Manchester Undergraduate Research Conference in March 2015.

For those interested in pursuing an academic career or those who simply have an interest, MMR Soc is here to provide you with as much information and as many opportunities as possible.

Manchester leads in many areas of medical research and we believe that is never too early to be involved as a student.

Thank you to both Pacemaker and Manchester Medsoc for inviting me <https://www.teenagecancertrust.org/what-we-do/education/> to write about the society in this excellent project.

It is clear that the committee this year has already made an incredible impact and should be congratulated.

I look forward to seeing you at our next event.



## Looking for flexible work to fit around your studies?

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# Working Life In Oncology: Research and Education at The Christie

By Olivia George and Mátyás Jakab

Not only clinical oncologists are vital to the smooth running of oncology units and the progression of research. Pacemaker spoke to a great example of this: Manchester's own Dr Kate Vaughan. After completing her PhD in Inorganic Chemistry at UMIST in 2004, Dr Vaughan worked as a research associate for 3 years in the Manchester Science Park, before joining the University of Manchester in 2000, where she has been working ever since.

Now, as a Research Programme Manager in the Institute of Cancer Sciences based at The Christie, Dr Vaughan manages the Manchester Teenage Cancer Trust Programme, as well as leading the Higher Education Teenage and Young Adult "Sometimes It's Cancer" awareness campaign. Dr Vaughan supports both clinical and non-clinical cancer research, which includes sourcing and managing finances for research projects.

## Which are the most common cancer types in young people?

TYA (Teenage and Young Adult) cancer bridges the gap between paediatric and adult oncology, with a wide spectrum of cancers being diagnosed in this age group. Cancer in young people is rare, accounting for less than 1% of all cancers and the average GP is only likely to see one case of young adult cancer in their entire career.

Nonetheless, the most common cancer type in young people (ages 15-24) is lymphoma. Carcinomas (such as of the thyroid, cervix, bowel and ovary) form the second most commonly diagnosed group of cancers in 15-24 year-olds overall, accounting for 20% of the total cancers in this age group.

The most common cancer affecting young men is testicular cancer. Other common types are brain tumours, sarcomas (bone and soft tissue tumours) and leukemias and melanoma is something that is becoming increasingly common in teenagers and young adults.

## Can you tell us a bit about the clinical and non-clinical research into TYA cancer that is happening within Manchester?

The Teenage Cancer Trust (TCT) awarded the only research programme into TYA Cancer Medicine in 2005 to Professor Tim Eden, who was a member of staff at The University of Manchester at the time. It was a peer reviewed, national open competition and TYA oncologists across the UK were invited to put

in bids. Manchester won the award, which originally was for 10 years, from 2005 to 2015, with £2.85 million for research.

Under the leadership of Professor Eden, the primary focus of the programme was related to psychosocial aspects of cancer in young people, about adherence to treatment, and how young people are different to children and older people. However, the focus shifted to more clinical research when Professor John Radford took over the programme in 2010 and Dr Martin McCabe joined the research group.

That is when we started looking at more clinical research in terms of better treatments, or different regimens of treatments to reduce late effects. Prof. Radford is a Professor of Medical Oncology specializing in lymphoma and Dr McCabe has a clinical interest in sarcoma and brain tumours, namely medulloblastoma. Martin is part of a large EU project and is leading the first randomized controlled trial in recurrent Ewing sarcoma. Martin also has a biological and translational interest in oncology, so does a lot of work looking into molecular mechanisms in medulloblastomas and sarcomas. John is a leading lymphoma expert both in the UK and internationally and his focus is in Hodgkin Lymphoma.

It's interesting to have variety and within the programme we also collaborate strongly with other TYA oncology teams across the UK.

We still have a psychosocial arm to the programme to ensure that young cancer patients' needs are being met. At the moment we are one of three sites – Leeds, Manchester and UCLH – looking at distress in young people with cancer.

Additionally, there is a national study called Brightlight, which looks at optimising care of young people with cancer – finding evidence for whether specialist services for Teenagers and Young Adults with cancer add value.

The overall aim of the Manchester research programme is to improve outcomes for young people with cancer.

## How do research studies work in these cases, considering that many participants are young, possibly below the age of consent and seriously ill?

Young people can be difficult to recruit to clinical trials, and timing is vital. Young people come in, they've had a shocking diagnosis, and they may not want a nurse coming in with loads of leaflets on trials. So, the our Teenage Cancer Trust

funded research nurse is very aware of how to approach this whilst keeping in mind the situation the patient is in. The team has attended conferences where young people with cancer talk about their experiences. At one of these, I asked the 5 patients who were present that day whether they would go on a trial and they all said "No, I'm not going to be your guinea pig."

So we have to overcome that and explain clearly what a clinical trial is. I suspect that some of the fear is that young people may think they might get placebos instead of cancer treatment, but in cancer clinical trials patients always get the standard of care as the minimum treatment and, if they are in the treatment arm of the study, they will receive a different or additional therapy that is being tested as potentially beneficial, so it is never to their detriment. As well as having few patients to begin with and small numbers of trials available, there is also difficulty in recruiting young people to take part in trials. There is ongoing work with the charity explaining "What is a clinical trial?" and demystifying the beliefs about not getting the right treatment.

## Could you tell us a bit about Sometimes It's Cancer campaign?? What does it do, why was it set up and how is it run?

Teenage Cancer Trust has an education team that goes into secondary schools to talk to young people, usually in Year 9, about what cancer is and common signs that could indicate cancer, as well as supporting individuals who may have had cancer and are coming back to school.

They also build in a healthy living message to protect against cancer as you get older. Sometimes It's Cancer is a project that extends these messages to young people who are studying in higher education.

It was developed here at The Christie with a group of ex-patients about 8 years ago. The reason was that patients who had been diagnosed with cancer had no idea that they could even get cancer. So we asked them what they would have found useful to know prior to diagnosis. The current strapline is, "Most of the time it's nothing, but sometimes it's cancer."

We are trying to spread the message about the 5 most common signs of cancer (an unexpected lump or swelling, unexpected pain, any significant weight loss without trying to lose weight, and extreme tiredness, as well as any sort of change in a mole). The goal is to make young people more aware of cancer symp-



Dr. Kate Vaughan

toms so they can see their GP quickly if they spot them.

## What does the future hold for Sometimes It's Cancer?

Although the campaign has been around for a while, it was this year that it has formally been adopted by Teenage Cancer Trust. We are having a total rebrand of the campaign working with a national marketing company who has offered to work with us without charge and then we are going to evaluate the refreshed project locally, both at the University of Manchester and Manchester Metropolitan University.

The campaign and the evaluation is supported by the Manchester Leadership Programme within the university and we are also hoping to work in collaboration with the Medical School Society CATS team. We are planning to get a baseline of knowledge from students across the University and then repeat the awareness test after students have looked at our rebranded materials, and analyse the results.

If we can prove that Sometimes It's Cancer is effective at increasing

awareness of cancers in young people, we will roll this out to all universities in the UK! The campaign was designed to be cost effective, comprising social media and digital information that is easy to replicate in other HEIs.

On the academic side we will do promotion of the project at conferences, and on the student side hopefully have champions who will go to other universities and roll it out there. So it's about bringing all these people together and getting the message out there.

*We thank Dr. Kate Vaughan for taking the time to answer our questions.*

*To find out more about Sometimes It's Cancer, go to <http://www.cancer.manchester.ac.uk/sic>*

*FB: Sometimes it's Cancer  
Twitter: @SIC\_GB*

*If you would like to get involved in this project, please contact either Kate at [kate.vaughan@manchester.ac.uk](mailto:kate.vaughan@manchester.ac.uk) or our MLP contact, Kirsty Hutchison at [Kirsty.hutchison@manchester.ac.uk](mailto:Kirsty.hutchison@manchester.ac.uk)*



# Radiation Oncology in Canada

By Jemima Heap

Dr Barbara-Ann Millar works with adults and children with CNS tumours. She is a staff oncologist at Princess Margaret Hospital and the Hospital for Sick Children in Toronto. She is also the programme director of the University of Toronto Radiation Oncology residency programme. Dr Millar spoke with me via Facetime about her field and working life as a doctor in Canada.

*Disclaimer: due to technology malfunction, I had to take notes rather than record the interview and so the words below are paraphrases of Dr Millar's own.*

## Why did you choose radiation oncology?

I trained in the UK as a clinical oncologist in both radiation and chemotherapy. I did two junior rotations in Oncology where I had good interactions with patients. There is a good population with a clear need, where something good can be done. I was also attracted by new developments, particularly molecular breakthroughs.

## What does your work as a radiation oncologist involve? Which cancers specifically benefit from radiation?

Patients are diagnosed in the community, have surgery, and then attend a collaborative clinic at my hospital with the medical and radiation oncologists. So they come to me as a tertiary referral.

Radiation is not systemic so it is more akin to surgery than chemotherapy.

The benefits are that it can be lo-

calised, with no surgery, and it can be curative. An example treatment schedule would be daily Monday to Friday for 6-7 weeks. There is a fear of the concept of radiation due to the previous mode of delivery, but now it is much more focused and targeted with less toxicity. Exposure to radiation is always a risk: benefit judgement call, but it is an underused modality.

Radiation is a standard of care for brain tumours, as chemotherapy cannot cross the blood-brain barrier.

It is also a very effective radical treatment for head and neck tumours and for cervical cancer.

It offers very good palliation in that it relieves symptoms and has few side effects.

## What is it like working in the Sick Kids' hospital?

I loved working with children. People say to me 'I don't know how you can do that,' but I take a positive perspective: those kids already have cancer, I haven't given it to them but I can do something positive. Kids are fun. Often they have 1-2 treatments and then they play around the ward. They are very hardy and bounce back quickly.

You get to know them and connect with their families. They trust you and come to you with unrelated problems so it can be like being their family doctor.

## What do you enjoy most about your job?

It is very positive. Often patients with brain tumours will come to you very sad and disillusioned. You can give quality time for families even

if treatment is not curative, as well as time to make decisions. You get to know patients and their families well. It is a very team-centred profession and you work with physicists and radiation therapists to plan treatment, and technicians who execute it. We have a very collaborative environment at Princess Margaret and there are big MDTs with medical and surgical oncologists.

## What challenges does your job present?

The media disperse information that is not representative. For example a new 'cure' that may be cellular and not even in animal models yet. It is unfair to give patients expectations. People with fewer morals use the internet to offer treatments that don't work. You see medical tourism for desperate people. Patients need good information that is reliable and evidence based.

## You mentioned being attracted to radiation oncology by new technologies and developments, what is on the horizon now?

Targeted therapies. Here we are working on clinical trials with medical oncologists to look at brain metastases, which tend to behave like primary cancers (e.g. from renal cell and melanoma). We are asking how they interact with focused radiation, looking at methods of delivery and image guidance to focus on cancer killing but also reducing toxicity.

## How did you find the transition from working in the UK to Canada?

I completed all on my training in



Dr. Barbara-Ann Millar

the UK. I just had to complete a one year fellowship. One year after specialist training, I went to do a fellowship in CNS and Paediatrics Radiation Oncology. Then I was offered a second year, and then joined staff in June 2001.

## What are the key differences between working in the UK and Canada?

The UK system gives an advantage to patients, as doctors train in both oncology and radiation, so they tend to stay with the patient throughout treatment and the patient knows who they need to contact.

In Canada, the patient will see a radiation oncologist, a medical oncologist for chemotherapy, and a surgical oncologist, often all in different hospitals, with chemotherapy delivered outside hospital. Therefore, their care is very fragmented. It is challenging for the patient as they don't know what treatment has caused what side effects therefore they do not know who to contact.

Canada has socially funded medical care if you have been resident for a minimum of three months, but it does not cover drugs. Hospitals will cover the cost of IV chemotherapy, but not oral chemotherapy that is taken at home.

In the case of brain tumours such as a high grade gliaroma, treatment can cost the patient several thousand dollars.

There is a lack of family doctors (GPs) in Canada. Family doctors play a vital role in continuity of care and knowing when to make appropriate referrals. Here patients themselves have to find the right person to see.

## Does this mean that patients in Canada present for treatment

later?

Toronto is a well-educated and well-resourced population, so they present themselves, but that is not the case everywhere. Due to the lack of cross cover for family practices, everything is sent to the local Emergency Rooms, which are overwhelmed.

## If you could have chosen any other speciality, what would it be?

Medical education. As programme director of our training programme at Princess Margaret, I oversee 29 trainees for the five years of their training. They are like specialist registrars.

You get a different perspective and it's a very engaging environment. I like the enthusiasm and support when you follow them through.

## Does the graduate system in Canada mean that doctors are drawn from a different social distribution than in the UK?

They are 5-10 years older. They have huge debt, which affects their choice of job. They have to choose whether to be salaried or part-salaried-part-fee for service. And they have to choose a job they can get.

## What is the key message that you would like to communicate to students about oncology?

Oncology patients all have great clinical signs so examine them!

Do an elective as no matter what field of medicine you enter, you will contact cancer. More patients are surviving.

The challenge to our undergraduate medical programme in Toronto is to widen exposure and even the playing field with other areas of medicine.

Continued from Page 6: 'Young Oncology Unit, Christie Hospital NHS Trust'



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# Mystic Megicine's Horriblescopes

Compiled by Connor McLaughlin and Will Tsang

## Aries, 21st March – 19th April

Your close set eyebrows and low cheekbones give you that rugged, early ancient human look that every aspiring Neanderthal loves.

Whilst normally only a useful trait during the Hallowe'en period, with Jupiter set squarely in the house of Venus this month, you can expect to attract numerous potential mates on your next booze-fuelled catastrophe of a night out. Just remember to cover your homo erectus if you don't want cavebabies (or cave-gonorrhoea).

## Taurus, 20th April – 20th May

With the moon in full retrograde, you are at your most irritating level in months. Keep yourself to yourself this month, and you will be rewarded next month by the collective respect of your peers.

There is also a slim chance that they consider giving you another opportunity to not be "that one weird guy/girl who everyone laughs at, but never with".

Yeah, right.



## Gemini, 21st May – 20th June

The ebb and flow of your energy this month will coincide with the moon doing a backflip through the house of Mars.

Try to keep your chi levels high by avoiding work altogether and starting a new hobby. Take up cross-fit, or join a cult maybe. Just make sure it's something that forces other people to spend time with you in order to avoid losing that last bit of human contact you so desperately need.

## Cancer, 21st June – 22nd July

The stars predict a downward spiral of depression and loneliness in your future. If you had only answered the desperate e-mail pleas of the entire Nigerian royal family at any point in the last 15 years, then maybe the horrifying tragedy wouldn't have happened.

Maybe they'd all still be alive. I hope you're happy.

## Leo, 23rd July – 22nd August

Love, wealth, admiration, and success are featured strongly in your sign this week. You won't be receiving any of those this month however because Mercury is twerking in the house of Neptune. Tough luck, eh?



## Virgo, 23rd August – 22nd Sept

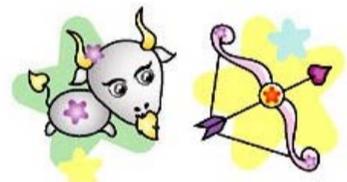
This is a month for making big romantic decisions. Try spicing up your love life by having intercourse with another human. There are only so many dates you can go on with Palmela Handerson.

## Libra, 23rd Sept – 22nd October

Try to avoid making important financial decisions this month. Or any month, in fact. You are a notoriously poor judge of character and just because they say it isn't a pyramid scheme, doesn't mean it isn't a pyramid scheme. Stop investing in pyramid schemes. Stop it.

## Scorpio, 23rd Oct – 21st Nov

The stars have nothing to say to you this month. Maybe if you'd returned the stars' calls and messages last month after (what the stars would say) was probably one of the best dates they've ever had, they would still want to talk to you. But they don't. Shove it up the house of Uranus.



## Sagittarius, 22nd Nov – 21st Dec

Earth's mad flailing in the house of the rising sun this week will cause you to feel a little insecure for no apparent reason.

The stars are here to inform you that there are several, immediately apparent reasons. Cut your hair, bathe in something strong, and consider adopting a very different laugh to the one you have now, and we can work on your other crippling social issues next month.

## Capricorn, 22nd Dec – 19th Jan

Try to avoid taking proverbs and sayings too literally. Just because you once heard that 'a good friend will bail you out of jail, but a great one will share your cell', doesn't mean it's okay to frame your friend for a crime you committed.

Another old proverb says, 'There's probably a reason that guy stabbed you with a hastily sharpened toothbrush in prison, but now you'll never know'.

## Aquarius, 20th Jan – 18th Feb

Avoid dairy. In recent weeks you have developed a strong allergy to anything from a cow.

You can try some milk if you don't believe me, but the let the resulting explosive diarrhoea serve as my liquidy, brown "I told you so".



For a second opinion seek advice from this reputable (large) medium.

## Pisces, 19th Feb – 20th March

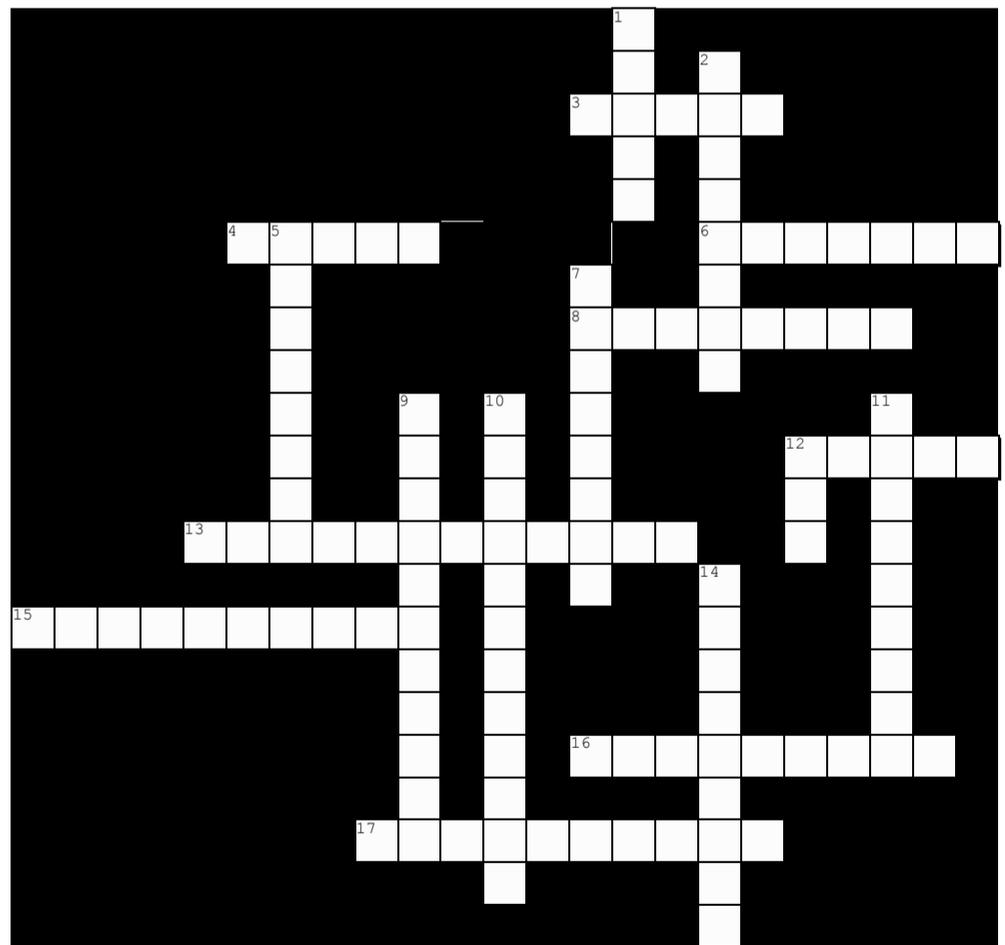
The stars see great riches in your future as you discover a mysterious lamp that – upon cleaning – releases an all-powerful genie who grants you three wishes in gratitude. The stars also think you're a colos-

sal moron for wishing for infinite wishes and causing all of the known universe to instantly collapse into a singularity.

Good job, you negated existence. Idiot.

\*\*\*\*\*

## PBL Break [add caffeine source of your choice]



Created on [TheTeachersCorner.net](http://TheTeachersCorner.net) Crossword Maker

### Across

- 3. Tumour suppressor gene (5)
- 4. Abnormal growth from mucous membrane(5)
- 6. Tumour of epithelial origin (7)
- 8. Largest cancer centre in Europe (8)
- 12. British surgeon first responsible for observing high levels of scrotal cancer amongst chimney sweeps in 1775 (5)
- 13. My other peach (anag.) (12)
- 15. Most common of all human cancers (8)
- 16. Follows prophase (9)
- 17. From Latin meaning 'transition' (10)

### Down

- 1. Husband and wife team, the first to use the word radioactivity (5)
- 2. Location of Devil Facial Tumour Disease (8)
- 5. Mutation (8)
- 7. Largest cancer and care charity in the UK (8)
- 9. Trailblazer in terms of offering new methods for funding treatment (6,5)
- 10. Translocation in acrocentric chromosome pairs (12)
- 11. One of the first 20 people to have both cancer genes and normal genes sequenced (5,4)
- 12. Guardian of the genome (3)
- 14. Child of parents who went looking for proton beam therapy (5,4)

## INSPIRATIONAL QUOTE OF THE MONTH

"If you want to get out of medicine the fullest enjoyment, be students all your lives."

David Reisman  
(1867 - 1940)



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\*Full prescribing information can be found on the electronic Medicines Compendium (eMC) at [www.medicines.org.uk](http://www.medicines.org.uk) \*IRI Adult Cough Liquid £-Sales 52 W/E 25/1/14.



## COUGH, COLD, 'FLU AND SORE THROAT MEDICINES WITH CLOUT!

# Who IS my Anatomy Tutor?

By Olivia George

## Professor Ingrid Gouldsborough

### Background

I started off as a nurse and worked for a couple of years in Switzerland and Australia.

Whilst I was in Australia I decided to go back to study Human Biology before returning to England to do a PhD and postdoc in Hypertension with Dr Nick Ashton (senior lecturer in Physiology at Manchester's FLS). But I'd always really had a love for anatomy. My PhD was in Sunderland but we moved the lab to Manchester in around '98.

All along the way I had been teaching and when my postdoc came to an end I decided I wanted to get more into it. I worked here as an anatomy demonstrator before obtaining a teaching-only position.

### What made you love anatomy?

My first ever lecture for Human Biology was given by an anatomist on a skeleton and I remember thinking, 'wow this is fascinating'.

I also love physiology, and seeing how things work helps you understand the anatomy. Studying and teaching anatomy has been absolutely brilliant from the moment I started!

I was very surprised when I

found this love for anatomy – I think sometimes you just fall into these things.

### Anatomy at MMS

We are not trying to make anybody a specialist. My view is that to be able to go on to specialise later you have to have a good, solid understanding, and the only way to understand it is to cover most things. We took the curriculum as prescribed by the Anatomical Society in conjunction with the Royal College of Surgeons, as well as looking at the curricula suggested by other Royal Colleges, and we've put together what we think is a good grounding.

We aim to go into just enough depth so that you have enough knowledge to understand things and learn more later on. I appreciate it's quite hard for students when it's such a large amount of information to take in.

Even I can do something 20 times and I still have to look it up the next time. But the more you do it the easier it gets.

### Adjusting from Phase 1 to 2

I think students shouldn't be scared to say if they can't remember something – they should be saying

'yes we've done it but I can't remember, please can you recap it'.

Nobody's expecting you to remember everything 5 years down the line.

In Years 3/4/5 when you're in hospital you will have the opportunity to learn from people who are confident in their specific area.

That said, there is also so much that doctors will be able to teach you, they may avoid anatomy – in which case don't be tempted to avoid it yourself!

### Top Tips

The main thing is not to be scared by it: you should appreciate that you're not going to learn everything in one day.

If there are words you don't understand look them up straight away – don't leave it!

Anatomy is very logical, but you've got to do the groundwork before you can always see the logic. I think you have to battle at it.

Use the specimens as much as you can, and use the Acland's videos: if you can see things it's easier. Textbook-wise if you read it in one book and it's not very clear go and get another and see if it's better – piece information together.

## Rosie Wright Anatomy Demonstrator

I graduated from Manchester having gone straight to Uni from A levels, and have completed the Foundation Years in East Lancashire Hospital trust doing jobs in Breast Surgery, A&E, Gastroenterology, Neonatal Medicine, GP and Obs&Gynae.

I wanted to be a demonstrator because I enjoyed anatomy in medical school. I realised how important it is to have the knowledge base in foundation years and I

want to go into surgery so anatomy knowledge is extremely important for me.

I got involved in a lot of peer teaching throughout university and Foundation Years, and I'm keen to teach more, so for me working as an anatomy demonstrator was a great opportunity to do something I'd really enjoy and that would look good on my CV. It will also help me to decide what I want to apply for in further training.

## Maria Harrington-Vogt Anatomy Demonstrator

I went to St. Andrews prior to undertaking my clinical years in Manchester, and then completed my Foundation Years in Preston.

My jobs were in Urology, Palliative Care, Cardiology, Surgery, A&E and GP.

I wanted to do anatomy after seeing how much fun my demonstrators in St Andrews had, and to develop my teaching skills.

I have previously volunteered

in Palestine and want to work abroad in future; having this year out will help me to develop my skills and CV, and to work out how to make my plans happen.

Our aims as demonstrators is to try and pass on our enthusiasm for anatomy and help the medics/dentists enjoy and learn anatomy – hopefully in an easier way than it would be to just read a book or listen to a lecture.

## Top Tips from this year's demonstrators:

Everyone learns differently but repetition and familiarity is key in learning anatomy- it's very hard to learn without getting hands on.

Use different types of resources and make the most of the resources available from the DR. People pay

A LOT of money to do courses and see the anatomy resources here.

Be systematic in approach to learning. Work out your learning style early on and don't feel like you have to learn the same way as your friends.

## Success of Cancer Research Number of Survivors on the rise

By Djamila Rojoa

According to Cancer Research UK, someone is diagnosed with cancer every two minutes in the UK. This is an alarming finding leading to the fact that more than 1 in 3 people in Britain will develop some kind of cancer.

Out of the 200 types, breast, lung, prostate and bowel cancers are the commonest.

Last year, cancer alone accounted for 28% of all deaths, making it one of the leading killers. However, the recent report from the Office for National Statistics shows a silver lining.

It states that the number of cancer survivors is on the rise.

The pattern of survival has been shown to be increasing for patients diagnosed with cancer during the 4 year follow-through, from 2008 to

2012, even with the exclusion of other causes of death.

The average rate of survival of 10 years or more for all cancers is 50%.

Breast and prostate cancers have over 80% chance of a 5-year survival, and the death rates in the commonest cancers have fallen by over 33% over the past 20 years.

These success rates are attributed to research successes, which have allowed for earlier diagnoses, better treatment of cancers with more efficient chemotherapy medications, better precision in radiotherapy and state-of-the-art surgeries.

Over £400 million was invested specifically in research by Cancer Research UK last year, and every pound is a step to successful treatment of cancer, even if it is a microscopic one.

Unfortunately, the outcome of other cancers, such as that of the brain, lung and upper gastrointestinal tract, is still poor with a less than 22% 5-year survival rate. Despite that, the power of research promises the future of cancer as a killer to be a bleak one.

The important message is that cancer can be defeated with ongoing research and widespread awareness. The latter has been of utmost importance for the cancers which now have high survival rates.

There are a large number of people raising money for research and spreading awareness about preventive measures, early signs and symptoms and conservative management of cancer.

So keep spreading the word, so that cancer survival becomes the norm!





## Book Review: The Emperor of All Maladies

By Matt Betts

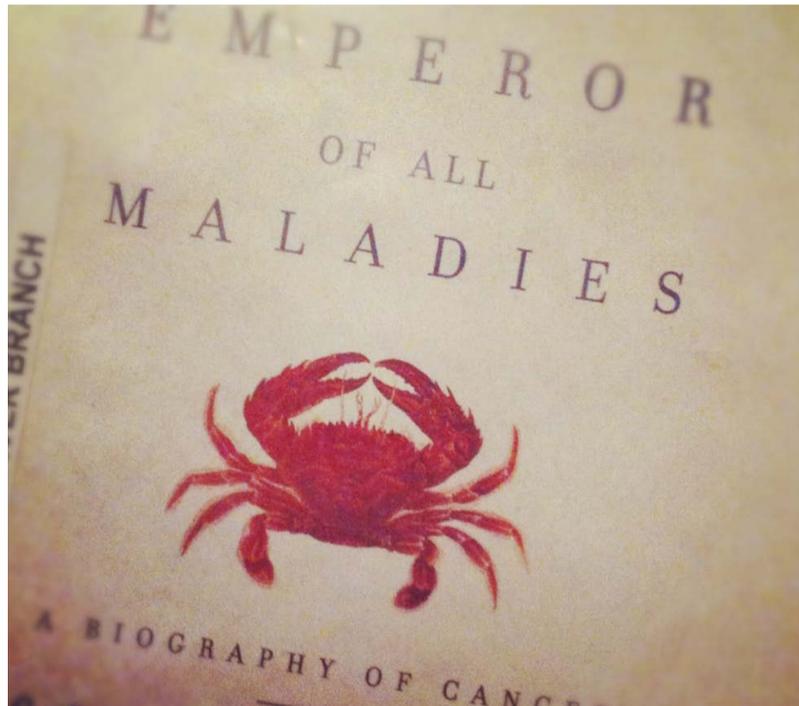
Disclaimer: this is no more a critical review than a love letter.

When people ask me what my favourite book is (dates that are on thin ice, awkward pints with dad, that time I got Tinder and matched with a girl who swiftly unmatched when she found out I paint toy soldiers) I tell them proudly that *The Emperor of All Maladies* by Siddhartha Mukherjee is the best book I have read and am ever likely to read. Then, predictably, when said person goes on to ask what on earth the book is about and I say matter of factly that it is a biography of cancer, eyebrows raise, ice cubes clink as hasty sips are taken, and I swear I hear the flick of a mental pencil checking a mental check box categorized: 'weirdo'.

Well, they're wrong. This book changed my life. If you haven't read it yet you should drop what you're doing - even if it's a spot of psychosocial for this week's PBL - and make a start. It'll make your shoulders drop two inches and remind you of why you are here. I challenge anyone to read this book and not be dumbfounded, astonished, and edified by it.

When I first opened the book, I had the same notion of 'cancer' (little 'c') that anyone with a cursory GCSE education in History of Medicine would have; I was probably all too influenced by what I saw in the headlines and was actually rather objectively terrified of the disease as nothing more than a vicious killer of friends and family.

Mukherjee acknowledges this, and its terrible ubiquity but also reminds us in his opening gambit that this is a disease that has gained a personality, hence biography: we wage political war upon it, we fight it on a daily basis, and we are then said to win or lose. 'cancer' has become 'Cancer', and Mukherjee tells us that his book is just as much a



biography of a thinking person than the next one along on the bookshop shelf. Let's enter the mind of this terrifying disease and pick it apart, he invites. And so he does; we are given a guided tour of Cancer from its very first appearance in ancient texts, and are held by the hand as Mukherjee analyses the significance of each, both in history and now, with the benefit of medically-informed hindsight. The guided tour takes us right up to the present, to the more familiar and perhaps, ultimately, the most terrifying - we're now in living memory, and thus in dangerous territory. Indeed, what is ironic - a point Mukherjee makes doesn't hide - is that our success in staying alive imbues us with a much greater chance of affliction. Better nutrition, living standards and so on all mean we live longer which, simply put, means more of us will get cancer. It makes for stark reading at parts, I won't deny.

However, the fascination mounts alongside accounts of historical diagnosis and concomitant treatment, and how barriers and obstacles were

overcome. Radical mastectomies for example, still performed within the last one hundred years, were brutal and terribly disfiguring but were - without the benefit of a sound knowledge of metastases - pretty much the only option for a number of unfortunate women (or fortunate, depending on its fairly wobbly success rate).

By the end, astonished by how far we have come, I was stoked by admiration for what we actually have achieved in this great War on Cancer. What we can do is utterly amazing, and what we can't is being worked on with such verve; I closed the book feeling, shamefully, that if there was any time to get cancer, it's now.

So, when I say the book changed my life, I meant it. Go on, read it, and be amazed. It'll make you get up earlier, it'll make you speak more in PBL, it'll make you communicate better with simulated patients, it'll get you a girlfriend or boyfriend. Well, maybe none of those, but it might kill five minutes on the next awkward date you go on.

## Medics Match Report of the Month

Manchester VS Keele

26/10/2014

By Jordan "lord of all the beasts of the earth and fishes of the sea" Dennis

We arrived ready to play Keele brimming with confidence after our emphatic win last week.

The team was missing many players but several players stepped up to make their NAMS (National Association of Medics' Sport) debut. Tsang and Poxon were making some great runs early on to create some chances, with the keeper doing well to keep their shots out.

Defensively we started solid, with very few chances thanks to the work from Harry, Geraint, Amelia, Sarah and Charlotte.

Jamie and Kardo were running their asses off in midfield to help attack and defend.

Jamie thought he would try and score an own goal by deflecting a shot towards the top corner from a short corner, luckily Jordan was aware and swiftly dived to make an amazing save; punching an attacker in the face in the process. Both teams then had a couple chances, but none led to anything significant.

At half time it was still all square in what was clearly a scrappy game. Keele were pressuring us well, we needed to keep possession and play simple hockey.

The second half started well with high intensity, but soon Keele had plenty of chances as our team tired.

A few saves by Jordan and a goal line save from Geraint at a short corner kept the game at 0-0.

The game became an end to end game of attacks, Keele broke and slipped the ball through to an attacker, I charged out and fluffed my kick, knowing he would probably score I decided to take the player out; thankfully Farant gave a short corner instead of a flick.

In the dying minutes Tsang and Poxon linked up well to give Jamie a 1-on-1 with their keeper, his shot was well saved which left us unable to score a well-deserved goal.

The game ended 0-0.

The new faces to the team played well and the overall effort was great, everyone should feel happy with the point as it was a very tough game.

Amelia, Will T and JJ all impressed on debut.

A win in our final game should see us top the group. We retreated to 256 to vote for MOM and DOD, we also fed the opposition, unlike Liverpool.

Man of the match: Jordan  
Nitwit of the day: JJ

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We are currently on the search for student contributors from all years. Pacemaker aims to focus on medicine and medical students, but whether you want to write about an experience you have had, an opinion piece or poetry, we want to hear from you! Write two pieces over the year and you'll get a great certificate for your portfolio! Email [editormanmedsoc@gmail.com](mailto:editormanmedsoc@gmail.com) with your ideas or for more information.

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