

SPECIAL ANNIVERSARY EDITION

2020

# Re:Mark's

CELEBRATING 185 YEARS OF  
ST MARK'S HOSPITAL



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# WELCOME FROM OUR CHIEF EXECUTIVE

Welcome to our special edition of Re:Mark's, which shines a spotlight on our incredible patients, staff, and supporters, all of whom have contributed to making our specialist hospital a success. 2020 marks our 185th anniversary, and it has certainly been an extraordinary and very challenging year.

The ongoing global pandemic has caused major disruption to everyone, yet despite the adversity, the small acts of kindness and the outpouring of support for St Mark's have sustained us through this challenging period. We thank you all for your donations and support at this difficult time.

In this newsletter we wish to transport you on a journey over the last 185 years, reflecting on the history of St Mark's, and trace the journey of how this unique institution has grown to be recognised as the UK's national bowel hospital. We also describe how your generous donations and efforts are transformative for people living with complex bowel diseases and cancer.

Despite the disruption caused by COVID-19, we felt it was important to create and share this special edition of Re:Mark's. We hope that you enjoy reading about what the St Mark's community has been up to, and how your donations are integral to our continued work to support research, education and innovation at St Mark's Hospital.

*Jason Bacon*



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# FREDERICK SALMON: THE MAN WHO STARTED IT ALL

As the proverb proclaims *'from little acorns do mighty oaks grow'* and, in the case of Frederick Salmon, this mirrors the reality of his achievements in founding St Mark's which flourished from a single room in Aldersgate Street to being recognised as the UK's national bowel hospital.

Salmon showed an aptitude for medicine, and at the tender age of 15 secured a medical apprenticeship. Upon the completion of his studies he travelled to London as a medical student at St Bartholomew's Hospital taking a special interest in rectal disease. So great was his passion and dedication to this specialist area of medicine, he was motivated to establish his own hospital.

The desire to alleviate the ailments of those suffering from bowel disease became a reality for Salmon in 1835 with the establishment of his small practice; The Dispensary for the Relief of the Poor Afflicted with Fistula, Piles and Other Diseases of the Rectum, located in Aldersgate Street, London. Being situated in London meant Salmon was particularly fortunate because due to the static population, there were an ample number of people who required the services the dispensary offered. Prior to the Industrial Revolution, fistula doctors, as they were known, had to travel the length and breadth of the country actively seeking out potential patients who may require treatment. However, as a consequence of the unprecedented influx of people, migrating en masse to the cities, Salmon had an immediate patient population within his proximity. In these circumstances, and despite the fact that he was unable to penetrate the inner ranks of London's elitist and exclusionary medical circles, it was possible for his specialist institution to thrive.

Prior to the advent of the National Insurance Scheme in 1911 (part of the emerging welfare state), and the National Health Service (NHS) in 1948, the dispensary offered its services to the poor and destitute of Victorian society. The endeavour was bankrolled by philanthropists, who were socially progressive in their views towards their poorer fellows.

Salmon was able to secure funding for his hospital, partly due to the location of his domestic residence which was in the vicinity of the



*Portrait of a young Frederick Salmon*

prestigious City of London Club. This meant that Salmon was able to interact with influential people who held the seats of power and wealth within society.

He forged a friendship with the Lord Mayor of London William Taylor Copeland, and secured his newly acquired friend, not only as a benefactor, but also as the first President of the hospital. The relationship between the hospital and the office of the Lord Mayor was firmly cemented and was maintained until 1995, when the hospital moved from City Road to its current location at Northwick Park.

*“Human suffering, in whatsoever form it may appear; will always be an object of interest to the benevolent mind.”*

Extract from charitable appeal 1835

As the hospital gained recognition within medical circles, it continued to experience an increase in

patient demand. In order to accommodate this, it moved from Aldersgate Street and occupied premises at 38 Charterhouse.

However, these soon became inadequate and a new site at City Road was acquired.

Once construction was completed the hospital opened on St Mark's Day, 25th April 1854. The hospital also adopted a new name, *St Mark's Hospital for Fistula and other Diseases of the Rectum*. Salmon and his small team which consisted of an assistant and two nurses, attended to patients in the new 25 bed hospital. In 1897, again to satisfy increasing patient demand, an extension was added, doubling capacity.

Salmon dedicated his professional career to this specialist institution, and was for a time the only surgeon. As the hospital continued to gain recognition it started to attract high calibre surgeons and medical professionals to its cohort of staff.

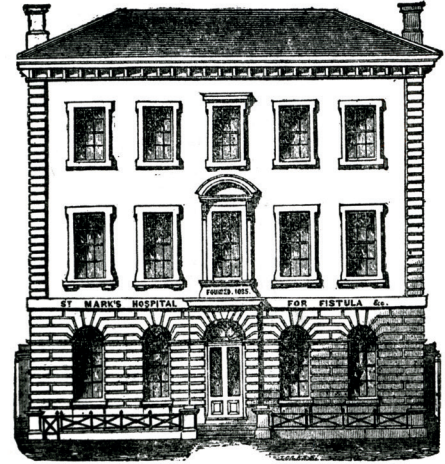
Salmon retired shortly after he suffered a bereavement, and enjoyed his retirement in the tranquillity of the countryside. On the 3rd January 1868 he sadly died, whereupon it was reported that *'thus passed from this world a man whose kindness of heart induced...founded an institution for the relief of the sufferings of his poorer fellow creatures which will stand as honourable monument to his memory'*.

Undoubtedly the death of the founder had an impact on the hospital and its cohort of staff, yet as a lasting testament to his legacy and the passion he inspired in others, the success of St Mark's continued into the 20th century. The continued success was aided by the keenness of the medical staff who wilfully embraced new surgical equipment such as the sigmoidoscope. The utilization of technological advancements meant that the specialists were able to recognise diseases such as ulcerative colitis, diverticulitis and polyposis with greater clarity.

ST. MARK'S HOSPITAL.

The first stone of this institution, one among the most needed and serviceable of the numerous charities which adorn the metropolis, was laid on Thursday last, by the Right Hon. the Lord Mayor, President of the Hospital *ex officio*. Prior to the ceremony, the committee and officers of the institution, with their ladies, were entertained at the Mansion House with an elegant *dejeuner*. The Lord Mayor arrived at the site of the building, situated in the City-road, soon after two o'clock, and was received with loud cheers. Mr. Harker having obtained silence, the proceedings were opened by an appropriate prayer, composed and delivered by the Rev. George Taylor, honorary chaplain, after which his Lordship went through the usual form in a truly man-of-war-like manner. A brass plate was deposited beneath the stone, on which is engraved—

St. Mark's Hospital. The first stone of this Charity, founded October, 1835, as the Infirmary for Fistula and Diseases of the Rectum, by Frederick Salmon, Member of the Royal College of Surgeons, F.S.A., F.L.S., was laid by the Right Hon. William Hunter, Alderman, Lord Mayor of London, President, August 12, 1852. John Wallen, Architect.



ST. MARK'S HOSPITAL, CITY-ROAD: THE FIRST STONE LAID ON THURSDAY LAST.

His Lordship subsequently addressed the assembly in a simple and heart-stirring manner, setting forth the benefits the charity had already conferred, in having relieved 7500 poor since its foundation. The new hospital will be constructed to receive fifty in-door patients, distributed through light and airy wards, containing not more than eight beds in each—an original plan, likely to be productive of a great increase of comfort to the sufferers. Before the company separated, three cheers were given for her Majesty the Queen; three for Prince Albert, a governor of the hospital; three for the success of the undertaking; and a similar number for the Right Hon. the Lord Mayor, the committee and officers of the institution.

In the early twentieth century, cancer became a prominent concern, not only from within medical circles but in the population as a whole. As St Mark's treated a number of patients with rectal cancer, it was able to successfully fundraise from its patrons and allocate resources to facilitate cancer research. This continued to be a priority, and research became an integral part of the hospital.

**EVERY CASE OF CANCER** treated at St. Mark's Hospital adds to the practical knowledge of science concerning this malignant and mysterious disease.

Your contribution to ST. MARK'S HOSPITAL EXTENSION FUND is therefore not only a charitable donation but a contribution to the fight against CANCER.

*We Need £15,000*

*Your pounds and your pence  
will be equally welcomed*



With the dawn of the NHS St Mark's was classified as a postgraduate teaching hospital and, although no longer classified in this manner, the facilitation of educational programmes and training remains a core component of the hospital. The strong ethos of providing educational and training programmes is evidenced today through the work of the prestigious Academic Institute.

In the decades after WWII St Mark's continued to expand, treating 1,000 inpatients and 24,000 outpatients annually. Since then it has continued to grow and has gone from strength to strength in increasing its capacity to treat an

ever increasing number of patients. Currently, St Mark's treats over 50,000 patients a year and, as a tertiary referral centre for complex bowel diseases, 60% of patients are referred from other UK hospitals.

St Mark's has not diverged from its founding specialism, rather, it has grown to include the treatment of all aspects of bowel disease, particularly complex bowel conditions. It is truly remarkable that a hospital, principally established on the peripheries of the Victorian medical world, is now renowned as a centre of excellence in facilitating research, education and innovation.

## A SELECTION OF PHOTOS FROM ST MARK'S ARCHIVES

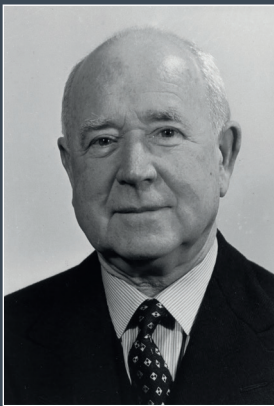
Delving deep into the archives revealed the following charming images, each providing a nostalgic snapshot into the past.



# ST MARKS'S ALUMNI

Becoming a world centre of excellence does not happen in a vacuum. The hospital is indebted to those who have come before and passed the gauntlet on to future generations. This has enabled the hospital to continue along an upward trajectory ensuring medical excellence, while cultivating a thriving research environment.

With a rich tapestry of talent to choose from, this selection of our alumni is by no means exhaustive, and those featured have been selected to highlight a diverse array of research and clinical advancements that have had a positive impact on the lives of patients.



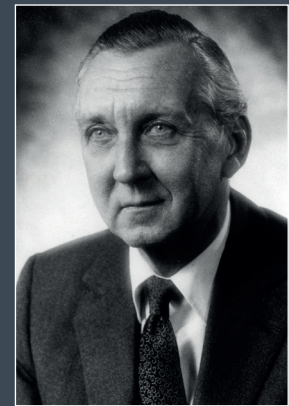
***Dr Cuthbert Dukes***  
***1890 - 1976***

Dr Dukes was appointed as the first Pathologist at St Mark's and, in partnership with Mr J Lockhart-Mummery, founded the Polyposis Registry in 1924. The registry recorded patients who had both polyps and a family history of bowel cancer, and was the first registry of its kind. By 1940, together with his assistant, Dick Bussey, Dr Dukes had established that the condition polyposis was inherited in a dominant fashion. Additionally, he developed the Dukes classification of cancer of the rectum.



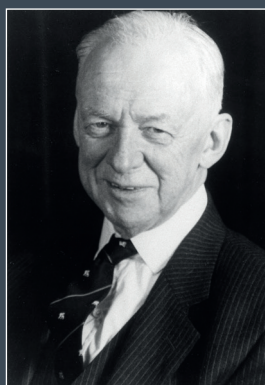
***Sir Alan Parkes***  
***1920 - 1982***

Sir Alan is best known for developing the ileo-anal 'j-pouch' surgical technique, in partnership with Professor John Nicholls. Developed in 1978, it is a surgical option for some patients with ulcerative colitis as it avoids the requirements of a stoma. This pioneering technique has since benefited 25,000 patients worldwide. Amongst the many accolades received throughout his career, he was awarded the Ernst prize in 1980 for excellence in biomedical sciences. At the hospital The Sir Alan Parkes Unit, is named in his honour, and each year at our annual congress, we invite a 'Sir Alan Parkes' visiting professor to present as a specialist in their field.



***Sir Hugh Evelyn  
Lockhart-Mummery***  
***1918 - 1988***

In collaboration with Dr Dukes, Sir Hugh reviewed the pathology and treatment of malignant colonic and rectal polyps. This insight was integral as he concluded that if enough healthy tissue was available after a polypectomy, the bowel could be preserved, with the caveat that the tumour was not highly malignant. He continued to maintain the Polyposis Registry which had been started by his father and Dr Dukes. Working in collaboration with Dr Morson, he published an influential paper on the distinction of Crohn's disease from ulcerative colitis, highlighting the significance of the anal lesions of Crohn's. He was awarded a knighthood in 1981 in recognition of his distinguished career and his medical service to the Royal Household.



## ***Sir Francis Avery Jones***

**1910 - 1998**

Sir Francis worked at St Mark's for thirty years and is revered as the founder of modern gastroenterology in the UK. He received his knighthood in 1970, honouring his remarkable career as a prominent figure within medical circles. Each year at Frontiers a 'Sir Francis Avery Jones' visiting professor is invited to present as they are, like Avery, distinguished in their respective field.



## ***Dr Basil Clifford Morson***

**1921 - 2016**

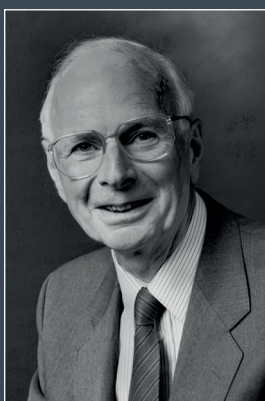
Dr Morson was appointed as Consultant Pathologist in 1956, and as an early leader in the field of gastrointestinal pathology, he was appointed as the director of the research department. He was intrigued by polyps and under his guidance, the Polyposis Registry continued to flourish. As aforementioned, he worked in collaboration with Sir Hugh on the clinical and pathological distinctions of Crohn's from ulcerative colitis. In the 1970s, he published his seminal work on the concept of adenoma-carcinoma sequence in the large intestine, which has provided indispensable insight. Alongside his other prominent colleagues, at Frontiers we invite a 'Basil Morson visiting professor' to present at this prestigious conference.



## ***Dr Wendy Sheila Atkins OBE***

**1947 - 2018**

Dr Atkins started her career as a clinical research fellow at St Mark's in 1995 when she joined the Cancer Research UK Colorectal Cancer Unit, becoming Deputy Director two years later. In 2010 she conducted a trial of a new screening test for bowel cancer, and as a testament to her unwavering convictions in the findings, in addition to her fervent determination in having this rolled out to the population, six months after the trial she successfully secured a government pledge of £60 million to incorporate flexible sigmoidoscopy into the NHS bowel cancer screening programme. Undoubtedly, her research and tireless dedication has had a significant impact on the colorectal screening strategy for bowel cancer within the UK.



## ***Professor John Lennard-Jones***

**1927 - 2019**

After several prominent appointments Professor Lennard-Jones final appointment was at St Mark's as Professor emeritus. Throughout his career he grew increasingly aware of the importance of nutrition for patients who suffered with Inflammatory Bowel Disease, and due to careful consideration of this, he became an instrumental figure in the introduction of parenteral nutrition for patients with intestinal failure. At St Mark's the Lennard-Jones Intestinal Rehabilitation Unit bears his name in recognition of his work. In addition to being a specialist centre dedicated to the assessment and management of patients with intestinal failure, it is the largest unit of its kind in the country.

# SPOTLIGHT ON THE ACADEMIC INSTITUTE

## WELCOME FROM PROFESSOR SIWAN THOMAS-GIBSON, DEAN OF THE ACADEMIC INSTITUTE

It has been an extremely busy year for the Academic Institute, and COVID-19 has presented a unique set of circumstances and accompanying difficulties. So many of the St Mark's family, have stepped up and gone above and beyond what they have been asked to do with good grace, bravery and professionalism, and I am immensely proud of all of my colleagues within St Mark's and the wider Trust.

In the world of the Academic Institute, since my appointment as Dean, I have been fully immersed in my the role, balancing new responsibilities whilst continuing to work full time as a Consultant Gastroenterologist. When I am not chairing meetings, organising training events or overseeing research, I am usually found in the Wolfson Unit attending to my endoscopy patients.

In addition to exhibiting at multiple international events, in September 2019 the Academic Institute attended the prestigious European Society of Coloproctology in Austria. Closer to home, our international annual congress Frontiers was held at the Royal College of Physicians (RCP),



bringing together specialists from the world of intestinal and colorectal disease. The environment is always electric, and fosters a culture of academic exchange between prominent figures from the world of gastroenterology, colorectal surgery, endoscopy and radiology. This year, Frontiers has had to adapt, and will now be delivered as a virtual event available online to our audiences, and is an event not to be missed.

As 2020 marks a new decade, and 185 years of St Mark's, we are confident we can continue to be at the forefront of advancements in the management and treatment of complex bowel disease for many years to come.



Working in collaboration with the Red Lion Pouch Support Group, St Mark's Consultants have been hosting informative webinars via Zoom, which are available to view online at [pouchsupport.org](http://pouchsupport.org). A plethora of topics are covered in the series, including a presentation from Consultant Surgeon Mr Janindra Warusavitarne, who discusses innovation in pouch surgery. In another talk, Consultant Psychiatrist Dr Yoram Inspector explores the fascinating gut-brain axis. You can keep up to date with these initiatives by following us on our social media platforms.

## TUNE INTO OUR NEW PODCASTS!

Listen to Professor Omar Faiz discuss surgical management of ulcerative colitis, or Professor Brian Saunders (*pictured left*) discussing the art of endoscopic intubation. Alternatively, you can catch up on the 2 part podcast presented by Professor John Northover on the history of rectal cancer surgery.

All podcasts are available online at [www.stmarksacademicinstitute.org.uk](http://www.stmarksacademicinstitute.org.uk)





# INTERVIEW WITH STELLA DILKE

## WINNER OF THE JOHN NICHOLLS PRIZE FOR RESEARCH AT FRONTIERS 2019

### Tell me a little about yourself, did you always know that you wanted to go in to medicine?

I realised I wanted to go into medicine when I was 16. I had this very eccentric great aunt who let me hatch chicks in her house and over the time spent with them I became very attached and I figured that if I was this attached to the chicks, I should probably do something like medicine. Additionally, my mum was ill when I was a child and this undoubtedly had an impact on my decision. However, I think consciously decided that I wanted to pursue medicine, after the experience with the chicks. Although looking back it was quite a gamble to take!

### When did you join St Mark's as a research fellow and what was your motivation for undertaking research here?

4 years ago I was at St Mary's Hospital, and one of my colleagues Alex recommended St Mark's to me. I came to meet Professor Clark and Professor Hart and I knew I had to work where these two incredible women were.

### Describe an average day at St Mark's

It depends. Currently I am in the lab analysing data for 12 hours, with lots of turmeric tea to keep me going!

### As the winner of the John Nicholls Prize how did you feel leading up to presenting at the conference?

It was quite scary! I was up against two of my colleagues who I really respect. I felt very lucky to win the prize, as past winners have been absolutely amazing.

### What is your research project on?

It is focused on how food effects the gut, what an optimal diet is and why one diet may work for one individual but not for another, in addition to how our diets are related to disease.

I am also interested to see how immune responses change after a cancer operation when an ileostomy is formed. We have collected samples and we will be running tests, looking at the by-products that bugs make in the gut, what type of bugs are present, and how they change.

### While undertaking research what challenges have you encountered?

One challenge familiar to all researchers is securing funding. I was lucky that I was awarded a grant as without this funding I would not have been able to do half the experiments.

With the initial experiments, I spent a year doing the same experiment, so much so I could do it in my sleep! Now we have started a new batch of experiments where we are extracting DNA using chloroform, which is highly dangerous. So dangerous in fact that we have to wear 3 pairs of gloves when handling it!

A current challenge is that while mixing these reagents one of them will not dissolve, which is a slight problem. Yet, I am undeterred and it will be solved!

### Any words of advice that you have received?

I received really good practical advice from St Mark's surgeon Mr Phil Tozer, who advised

that I implement a good study structure for my PhD. I was also told by Dr Sarah Mills to be involved in the Christmas show at St Mark's. I had the most fun doing the show two years ago; it brings people together and cements relationships between clinicians.

### What are your future aspirations?

To work at St Mark's, which is Camelot for colorectal!

## QUICK FIRE ROUND!

### Favourite film?

The Sound of Music

### Favourite book?

*A Movable Feast* by Earnest Hemmingway

### Favourite current artist?

AJ Tracey

### Hobbies?

Cooking and playing the viola

### Pet peeve?

Littering and people being inconsiderate



# SNAPSHOTS OF COMMUNITY SUPPORT DURING COVID

The past year has been unlike any other, and we have been overwhelmed by the outpouring of support from the St Mark's community and beyond. We thank everyone who donated to our emergency Covid-19 appeal which supported, amongst other things, the purchase of iPads for the Stay. Connected video-calling initiative so patients could be connected to their families during the height of the pandemic. We also wish to thank everyone, from individuals, to local schools and colleges, local charities, community groups, businesses and places of worship, who donated PPE, scrubs, food and care packages.



# WOMEN IN SCIENCE: PUSHING THE FRONTIERS IN EXCELLENCE

Inspired by International Women's day, we are delighted, and privileged to shine a spotlight on some of the incredible women who work at St Mark's. Thank you to all of the empowering and inspirational women, for their invaluable contributions to the hospital and the enhancement of patients' lives.



## ***Dr Claire Taylor, Nurse Consultant, MBE***

Dr Taylor set up the UK's first network for colorectal cancer 23 years ago and has dedicated her career to developing colorectal cancer nursing. Her tireless work was recognised this year as she was awarded an MBE. Massive congratulations to Dr Taylor and the entire team of complex cancer nurses who do an incredible job selflessly devoting themselves to the service of others. We are also delighted to announce that she is the newest member on the Board of Trustees for the Foundation, having joined in December 2019.

## ***Dr Michele Marshall, Consultant Radiologist***

Dr Marshall is head of the Radiology department and has been a Consultant since 2001 with a special interest in ultrasound and how it can be utilised for children with IBD. She was a Trustee for The Foundation for 8 years and is an active fundraiser having participated in The Colon Challenge, Prudential Ride London and 40tude challenges in aid of research.

## ***Ms Zarah Perry-Woodford, Nurse Consultant***

Appointed lead nurse of the stoma care team in 2014, in just four short years she was promoted to Nurse Consultant. She has developed and expanded the ileo-anal pouch service, providing expert and specialised care to patients.

*Pictured far right attending to a patient*



## ***Ms Carolynne Vaizey, Consultant Surgeon and Chairman of Surgery***

Ms Vaizey is the Director of The Sir Alan Parkes Unit and has worked in the department since 1995, first as a research fellow, and now as the Surgical Consultant. She is integral to the multi-disciplinary team who treat patients with functional bowel disease, in addition to being the lead surgeon for the Intestinal Rehabilitation Unit.



## ***Petra and Rali Marinova, Specialist Stoma Nurses***

Twins Petra and Rali are both stoma nurses, and will be well known to many of our readers. They support patients prior to surgery, during recovery, discharge, and assisting them with the adjustments that accompany living with a stoma. The twins are thoroughly enjoying their time at St Mark's, saying that it feels like "a dream come true."



### ***Professor Ailsa Hart, Consultant Gastroenterologist and Sub-Dean of the Academic Institute***

Professor Hart is the Director of the IBD Unit, which is responsible for the care of 5,000 IBD patients. Over the course of her distinguished career, she has won numerous awards, accolades and secured funding for research. Professor Hart has also been selected for several senior appointments, with her most recent appointment as the Honorary Skou Professor at Aarhus University. This is particularly impressive as she is the only gastroenterologist in the world to achieve this honour.

### ***Professor Sue Clark, Consultant Surgeon***

Professor Clark spent two years as a full time researcher at St Mark's, where she was based in the Polyposis Registry. It was during this time that she focused primarily on the various clinical aspects of desmoid disease in familial adenomatous polyposis as well as studying the genetic changes that occurred within these rare types of tumour. In addition to working as a Consultant Surgeon, Professor Clark is Director of the Polyposis Registry, and oversees multiple research projects throughout the year.



### ***Professor Stella Knight, Consultant Immunopathologist***

Over the past decade Professor Knight has worked tirelessly to establish the immunopathology laboratory as a major research facility for St Mark's. Her principal areas of interest are human Mucosal Immunity, and Nutrition and Immunity.



### ***Dr Adriana Martinez, Consultant Histopathologist***

Working for the histopathology department since 2007, Dr Martinez is part of a unique department which has a distinguished history in research and clinical pathology dating back to 1922.

### ***Dr Naila Arebi, Consultant Gastroenterologist and Clinical Lead IBD Services***

Dr Arebi set up the Bravo Catheterless pH monitoring service and leads the oesophageal diagnostic service. In addition to this, she is director of two post-graduate courses and sits on the British Society of Gastroenterology adolescents and young adults committee as an elected member.

### ***Professor Samar Al-Homoud***

Currently an honorary consultant surgeon at St Mark's, she recently received the accolade of a World Health Organisation regional award in recognition of her contribution to cancer control and prevention.



# SURGICAL ROBOTICS: 2 YEARS ON

The development of robotics for bowel disease surgery at St Mark's has been an enormous success, facilitated by a multi-disciplinary team of staff led by established robotic surgeon, Mr Danilo Miskovic. Embracing this enhanced surgical tool is a natural progression for St Marks, which has a distinguished record of endoscopic and surgical innovations. Since 2017, St Mark's has positioned itself to become one of the only hospitals in the UK to offer robotic colorectal surgery, whilst also researching the technique's efficacy and training other surgeons.

## CLINICAL

Between April 2018 and up to February 2020, 221 robotic operations were performed successfully and the majority of the cases were bowel-related. Although some urology, gynaecology and maxillofacial surgeons used the robot, the main focus of the robotic programme is colorectal surgery; St Mark's has the only robotic platform in the UK dedicated to this type of surgery.

In 2019, we shared that a joint robotic operation on the bowel and liver had taken place, and more of these operations have been performed. Mr Miskovic and the St Mark's team, supported by surgeons from other London hospitals, have also begun performing pelvic exenterations (a major operation to remove multiple organs in the pelvis),

which can only be undertaken in specialist centres. In addition, the robotics team has undertaken the first robotic ileo anal pouch surgery, a procedure developed by St Mark's in 1978.

## EDUCATION AND RESEARCH

Through the case observership programme, we have hosted 40 external surgeons with an interest in robotic colorectal surgery. These surgeons chose St Mark's as their first training choice, spending a day observing Mr Miskovic operating robotically. We have hosted delegates from the UK and across Europe, including Scandinavia, Ireland, France and Germany. We have continued to be involved in major international robotic surgery trials, one of which is assessing the potential benefits of robotic surgery in rectal cancer. Furthermore, the robotics team has appointed a research fellow whose research focus will be personalising surgical treatment and strategy for patients with colorectal cancer.

We want to thank the charitable trusts, major donors and patients that have supported the Surgical Robotics Research Programme. Covid-19 forced the Programme to pause, although some robotic surgery did continue at different locations. The Programme started recovering at St Mark's from August. We look forward to sharing our continued success and progress in the future.

## ROBOTIC FELLOWS

**The robotic fellowship at St Mark's is being funded by Intuitive Surgical Inc., the supplier of the Da Vinci Xi surgical robot, and it will train 6 surgeons over the next 3 years.**

### *Mr James Read*

*"After an international application process, it was a privilege to be offered the first six month robotic colorectal fellowship under the guidance of Mr Miskovic.*

*With the newest iteration of the Da Vinci and dual console this greatly enhances the ability to receive world class training. Given the intensity of the operative experience and the quality of the mentoring, I progressed to the console and was able to complete 34 resections as the primary surgeon. Training sessions were frequently observed by visiting surgeons, providing collegiate discussion, and expunging any nerves I may have had of operating in front of a crowd!*

*Since my placement I have taken up a locum consultant post at the Royal Surrey County Hospital and with the support of the department here, I was at the console for the first colonic resection at this hospital using the new system.*

*I am extremely grateful to all the donors that have contributed to the Surgical Robotics Research Programme which has provided me with the opportunity to train in robotics. I will constantly draw on this experience and technical skill to benefit my patients over my consultant career".*



## Mr Hugh MacKenzie

*“During my registrar training in the Wessex deanery I focused on minimally invasive colorectal cancer surgery. The Da Vinci robotic system provides an exciting new technique, allowing greater surgical accuracy, whilst maintaining the recovery benefits of keyhole surgery. It is increasingly becoming the ‘gold standard’ technique for colorectal cancer surgery.*

*Having undertaken a PhD based on training in laparoscopic colorectal surgery, I was very keen to undergo formal mentored training. St Mark’s is a world famous colorectal hospital making it the perfect setting for a fellowship. Having undergone a highly competitive application and interview I was delighted to accept a six-month fellowship from October to April 2020.*

*The first step was to gain familiarity with the robotic controls and set-up by utilising the in-built simulator and bedside assistance. This was followed by stepwise, mentored intra-operative training; progressing from the*

*easier to more complex steps of colorectal resections.*

*I am incredibly appreciative for this invaluable experience and I will continue to use the skills that I have learnt. I also wish to thank all the donors to the Surgical Robotics Research Programme”.*



### DID YOU KNOW?

As a specialist bowel hospital, St Mark’s is likely to perform two or three times more bowel cancer operations compared to other UK hospitals

St Mark’s has 5 robotically trained surgeons

Robotic surgery is used in over 50% of all colorectal resections at St Mark’s

## PATIENT PERSPECTIVE: JALPA

**“The mental shock of being diagnosed with cancer is something I will never forget – how bad is it? What treatment and surgery will I need? Will my family cope if I don’t survive?”**

“Within two weeks from being told that I have cancer, I realised very quickly how fortunate I was to be informed that in my case surgery might be all that is required, especially the option to have this performed using robotics. The thought of being operated on by robotic equipment sounded surreal at first, but the more I understood, the less daunting it became. The fact that being operated on with the aid of this tool would result in a faster recovery period, with minimal risk of post-surgical complications, ultimately meant that I would be able to resume my role as a mother, partner and most importantly, to be myself again in the shortest time possible (eight weeks from the point of diagnosis).

Without this innovative technology and more significantly, the love and care from all at St Mark’s, this would not have been achievable for me. **For my family this small episode is a stark reminder to smile, laugh and be happy as much as possible”.**

# LEAVING A LIVING LEGACY

*Contribution from Mrs Therese Paolini*

## MY HUSBAND'S BATTLE WITH ULCERATIVE COLITIS

“Michael has suffered from ulcerative colitis most of his adult life. In August 1994 he became gravely ill after a long period on medication and had emergency surgery to remove most of his large bowel at Queen Mary's, coming out of hospital with an ileostomy.

In 1995 Michael's health deteriorated again. He was admitted to hospital and septicaemia was diagnosed, however the source of the infection was never found. On discharge, we asked our GP for a referral to St Mark's, and this is where we first met Professor Robin Phillips and Dr Alastair Forbes.

Michael had another attack of septicemia in 1996. Recognising the symptoms immediately I called for an ambulance. Michael pleaded with the ambulance crew to take him directly to St Mark's rather than to our nearby hospital. It was a high risk decision because of Michael's failing health coupled with the longer journey time, although initially reluctant the ambulance crew agreed. When we arrived at the St Mark's, some of Michael's organs were beginning to fail and I was warned that he may not survive the night.

The next morning I finally found the courage to walk to the isolation room where my hubby had been treated the previous evening. To my overwhelming relief I found Michael sitting up in bed and speaking to doctors. The task of finding the source of his septicaemia was about to begin and Professor Phillips would leave no stone unturned. During another operation the rectum was removed and, when Michael awoke Professor Phillips presented, in a sealed bag, the evidence of what had been causing the septicaemia. Michael was shown an abscess the size and appearance of a mouse and so a diagnosis of 'mouse in the rectum was born'.

The intense feeling of relief in locating the source of septicaemia was overshadowed by the realisation that Michael would have a permanent ileostomy. As the reality sunk in, Michael became despairing and told me his life was over. I felt totally disheartened too. Slowly, with the encouragement and complete confidence of St Mark's doctors and the stoma care team, we soon began to realise that this might just be the start of a new life, finally free from fear, pain, frequent diarrhoea, weight loss and the debilitation of living

Leaving a gift in your will to any charitable cause is a deeply personal and important decision and, for our charity, gifts bequeathed in wills can help facilitate a diverse array of research. It is always incredibly moving to receive a gift posthumously, however, we are humbled to share with you the story of Michael and Therese Paolini, who were so inspired by the dynamic Surgical Robotics Research Programme that they decided to release their gift to St Mark's so that they may see the impact of their gift in their lifetime.

with ulcerative colitis.

Today Michael is an active 81 year old, who enjoys walking, singing in a choir and attending language conversational groups as he is fluent in Spanish, Italian, English, Portuguese and French. We both took up the piano in later life, and enjoy music, opera, gardening and Italian cooking. We have two sons, six grandchildren and one great grandchild Francesca Giulietta. We both love travelling and have visited many parts of the world, including Papua New Guinea, Australasia, Hong Kong, Bangkok, New Delhi, and North and South America!

There is life after the devastation of bowel disease, but we do need a strong support network of family, friends and of course the very best medical care we can find to help us. We always believed St Mark's was world class in their ability to treat difficult cases and we were not disappointed. Without timely treatment the outcome for Michael could have been so very different.

On 13th September 2019 we were invited to see Mr Danilo Miskovic and Mr James Read operating on a patient with rectal disease using robotic technology. The whole process seemed beyond the limits of human ability and yet both surgeons were so totally relaxed and in control as they manipulated the instruments in their operating booths.

We expected to see a robot doing the surgery but it was actually done by the surgeons moving the instruments



*Michael with his grandchildren, and great-granddaughter*

just as they would in laparoscopic surgery, but doing it remotely through a console giving them finer control and precision. We came home inspired by what we had seen.

It has always been our intention to give something back to St Mark's for the lifesaving care and support that we received. After witnessing robotic surgery in action, we felt there was no better time than the present to release our gift to St Mark's, so that we may see, in our lifetime, what can be achieved with this exciting technology at our fingertips. Good luck St Mark's and thank you for helping us both to enjoy a long and happy life".



Therese and Michael Paolini pictured in their scrubs in preparation for visiting the robotics theatre

## ALL OUT FOR ST MARK'S

For those who decide to leave a gift in their will to St Mark's, the fundraising team holds social events for these remarkable individuals. Previous events have included tea at the House of Lords, invitations to meet medical staff, researchers and exclusive surgical observations. Janet (pictured bottom left) attended our latest event, commenting that: "the technical advancement employed in surgery now is staggering, and I found the robot mesmerising".



## A gift in your will could help support our pioneering research

### BiCyCLE PUMP

Bowel cancer causes muscle wasting known as sarcopenia, which can adversely affect patient outcomes after surgery. The cancer surgical team at St Mark's hypothesises that sarcopenia can be treated with enhanced nutrition, exercise and vitamin D optimisation to improve surgical outcomes.

A project called Body Composition in CoLorectal CancEr: Pre-operative treatment of Underlying Muscle wasting in colorectal cancer Patients, or BiCyCLE PUMP, is currently underway at St Mark's. The project's team will assess the impact of the aforementioned pre-operative intervention and compare this data with a control group.

Charitable support is enabling the team to develop and test this novel intervention to determine if it can help to maintain or improve both the quality and quantity of a patient's muscle after surgery. The hope is that we can disseminate the findings of this research to other hospitals to champion the pre-operative programme across the UK.

### NOVEL 3D IMAGING AND DIAGNOSTICS

Anal fistulas occur in a third of Crohn's disease patients and they represent a complex disease that is difficult for clinicians and patients to understand due to their 3D complexity. Patients are keen to be involved in their treatment, but communicating issues pertaining to anal fistulas can be challenging.

We are using Magnetic Resonance Imaging technology in a novel way to assess fistula tract volumes over time as a way to understand patients' responsiveness to medical therapy, and to determine whether different treatment options need to be considered.

The procurement of a 3D printer, made possible by charitable support, has enabled us to successfully establish a technique to create 3D prints of fistulas, which will aid surgical planning. We are now analysing how they can be used to benefit patients, surgical trainees and surgeons. The ability to visualise fistulas will help guide surgery, facilitate education and improve patients' understanding of their condition.

This research is using cutting-edge technology to improve the treatment of patients affected by this common and debilitating symptom of Crohn's disease.

**Request your free gift in will pack and find out how you can help us achieve our vision of a future free from the fear of bowel disease**



# WHY RESEARCH AT ST MARK'S HAS BECOME MORE IMPORTANT IN THE WAKE OF COVID-19

In the first few months of the Covid-19 pandemic, clinical services and research projects at St Mark's Hospital were significantly impacted whilst medical staff were redeployed to the frontline to fight the new virus. As the pandemic has unfolded, it has become clear that we will have to learn to navigate a new world with Covid-19 for months and possibly even for longer.

In recent years, the healthcare profession has made successful attempts to move away from a one-size-fits-all approach to medicine towards personalised medicine. Personalised medicine enables clinical services to become more efficient because resources are targeted based on needs. Rather than all patients with the same

diagnosis receiving the same standard treatment, by understanding the genetic profiles of patients, treatments can be tailored on an individual basis. In the Covid-19 era, the need for personalised medicine, which is centred on the notions of targeted allocation of resources and better patient outcomes through individualised care, has become even stronger. In addition, the need to identify new methods of detecting and preventing cancer to relieve the growing pressures on clinical services such as colonoscopy has also become more acute. Research has the potential to drive clinical improvements and, in the wake of Covid-19, the relevance and importance of some of our projects has increased.

## ***The increased value of research at St Mark's in the COVID-19 era***

St Mark's had been thinking about how to make its clinical services more efficient long before the Covid-19 pandemic, which will come from a better understanding about how bowel diseases behave, by developing new diagnostic techniques and from improving skill levels in specific specialisms.

The needs to achieve efficiency in services and improve the care we provide to patients has informed the projects currently underway at St Mark's, which have all been made possible by charitable support.

## ***Why do some polyps progress to cancer?***

By studying the behaviour of polyps (growths) on a molecular level to understand why some become cancerous, it will be possible to identify patients at high risk of developing bowel cancer who need intensive monitoring and surveillance by colonoscopy. Concurrently, low risk patients will be spared from unnecessary procedures.

A linked goal to the above is to alleviate the growing pressures on clinical services such as colonoscopy;

overuse of colonoscopies is a recognised problem. For example, with an ageing UK population, there are more people eligible to be enrolled into Bowel Cancer Screening Programmes. Whilst the follow up process for patients who have had polyps removed at colonoscopy has become more refined, not all these patients will have the same risk of developing bowel cancer. We must try to understand the pathology that leads some patients to develop bowel cancer, in order to prevent all patients from entering the same monitoring and surveillance system; this is not only resource-intensive, it is invasive for patients. The PROGRESS project at St Mark's has this aim.

## ***New diagnostic techniques for bowel cancer detection & prevention***

A project from the St Mark's Lynch Syndrome Clinic which received funding during the Covid-19 pandemic aims to develop more tests which facilitate the prevention and early diagnosis of cancer in people with Lynch Syndrome (LS). LS is a hereditary disease which is responsible for around 1 in 30 cases of bowel cancer, often affecting multiple family members.

At present, the screening guidelines for LS patients involve the requirement of up to 20 or more

colonoscopies throughout one's lifetime. Again, this is both invasive and resource intensive. Identifying other types of screening which are effective at diagnosing bowel cancer and pre-cancerous changes in LS patients, in an era where traditional colonoscopy services are facing increasing pressures, will be essential going forward and can be used to supplement colonoscopies.

During the Covid-19 pandemic, St Mark's has spearheaded a national project to improve access to colonoscopy for high risk patients by using a stool FIT test to identify those whose need is greatest. At a time when access to colonoscopy is limited, this test is used to identify patients who should be prioritised.



Dr Kevin Monahan, a Consultant Gastroenterologist in the Lynch Syndrome and Family Cancer Clinic at St Mark's Hospital, who is the site lead for this project.

## **Perfects: A Training & Accreditation Programme for Radiologists Practising Virtual Colonoscopy**

CT Colonography (CTC) or 'virtual colonoscopy' is an effective diagnostic tool in some patient groups and is used instead of or in addition to traditional colonoscopy.

It is recognised that there is a UK-wide skills gap in CTC scan interpretation. Whilst CTC scans are reported with near perfect accuracy at St Mark's because of the proficiency of the Hospital's trained radiologists, the rates across the country are lower, which means that bowel cancers are being missed. Therefore whilst CTC is an effective diagnostic tool, its value to patients is dependent on the skill level of the radiologist practising the technique.

The PERFECTS programme aims to narrow the UK-wide skills gap through a training and accreditation programme. The results of radiologists taking part in a PERFECTS workshop imply that a single day of training can improve experienced radiologists' CTC reporting performance,

something that is sustained for almost one year.

The success of the PERFECTS project has contributed to the creation of the National CT Colonography Training & Accreditation Programme. Involving the core PERFECTS research team, it aims to train, test and performance monitor radiographers and radiologists who perform and interpret CTC.

UK-wide endoscopy services, which include colonoscopy, were pressured before the Covid-19 pandemic, and now they will have to operate at reduced capacity for an indefinite period. This is where CTC may be used as a first line investigation instead of colonoscopy to help inform treatment plans based on cancer diagnosis.

As the value of CTC has become more important, by association, it has become urgent that radiologists practising this technique are proficient at interpreting scans. The importance and relevance of the National CT Colonography Training & Accreditation Programme has increased in the wake of Covid-19.



A PERFECTS workshop (before Covid-19): radiologists were provided with 1:1 or 2:1 teaching and feedback by CTC experts

## **Two centres of excellence join forces for IBD patients**

A collaborative project between St Mark's and Barts Cancer Institute will research the use of a novel non-invasive test (blood test in the first instance) in Inflammatory Bowel Disease (IBD) patients, which could be effective at identifying pre-cancerous changes and early stage cancer in IBD patients. This would help to target colonoscopies more accurately on these patients, whilst acting as an alternative test to colonoscopy for IBD patients not presenting with the same pathology. The test may also be able to predict patients at higher risk of developing cancer in the future. This charitably funded project is underway.

# Feel emPOWERed with Bethia

It is a privilege to share patient and ambassador Bethia's incredibly moving story. In addition to undertaking fundraising during lockdown, she has also been busy creating her emPOWERed clothing range.

"On my 21st birthday, I got a cold which triggered an ulcerative colitis flare. In a short amount of time I went from training for my first half-iron man, and completing my 3rd year of medical school, to being in constant pain, malnourished and unable to walk to university. Medications failed to control the flare, and I was told that I would need to have my colon removed and a temporary stoma formed. After the hurdle of the operation, I thought that my life would quickly return to normal, and I was looking forward to getting back to university and planning my next sporting challenge.

What was supposed to be 1 operation and a short hospital stay, turned in to an 89 day admission, 4 major abdominal operations, 10 days in an induced coma, over a month in ICU and very nearly losing my life. On the 89th day I was discharged home, weighing 37kg, unable to walk and completely dependent on the care of my family. Having lost lots of my small bowel and colon, I was unable to absorb water or calories adequately. I was caught in a cycle of dehydration, weight loss and re-admissions to hospital for IV fluids and electrolytes. It was at this point, with my local hospital unable to offer a solution, that I was referred to St Mark's.

During the 8 weeks spent at St Mark's they diagnosed me with short bowel syndrome, and organised for me to have an operation so that I could have nightly parenteral nutrition. Unlike the time spent in my local hospital that was full of fear, my stay at St Mark's was full of positivity, problem solving and hope. When I was discharged home, I felt as though I had been given the biggest gift. Where 2 months before there had been neither hope nor options, there were now endless possibilities. **My life was mine again.**

The 42-day virtual bike ride to Sicily that my fiancé and I undertook during lockdown felt like a good way to thank St Mark's for the amazing care they have

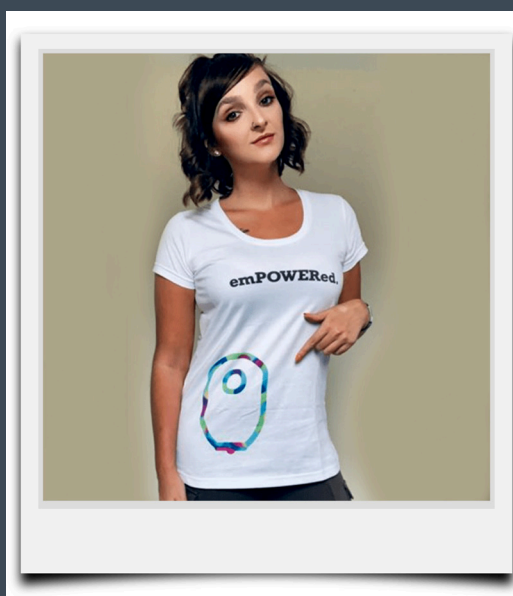
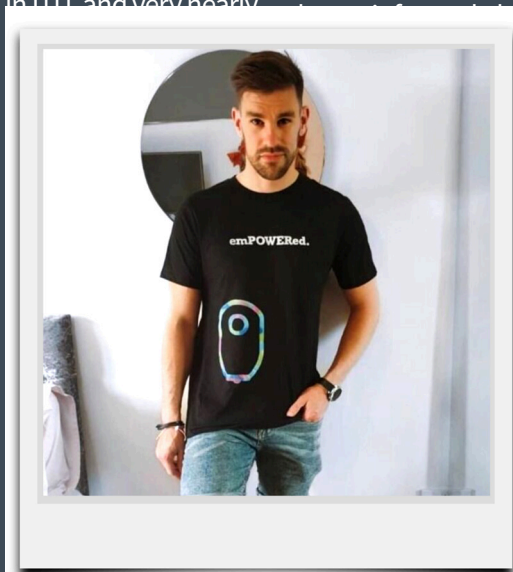


and continue to provide. We both really appreciate everyone that helped us exceed our fundraising target, raising a total of £10,710. For the past 6 years, the hospital has been my vital backbone; providing the parenteral nutrition and medical care that I need to continue to lead a happy and active life. It was also during lockdown, I saw an article about a man whose experience of having a stoma had been so traumatic that he was sure he would rather die than live with one permanently. I was shocked to realise that a large part of his reasoning was based on fear that people's perception of his stoma would impact so negatively on his life as to make it intolerable. After reading this article, I couldn't stop thinking about how his life would have been different if people were

aware of the impact of bowel disease and stomas. Even though I am proud to have my permanent stoma, I have a constant awareness of my bag, and often go to efforts to conceal it in an attempt to avoid unwanted comments. If, even as someone who is accepting of my body, I feel this way, it is very easy to understand how the burden of societal stigmatisation can devastate a person's quality of life.

The idea behind the **emPOWERed: Making the Invisible Visible** clothing range is that by bringing the sight of stomas and bowel disease to the mainstream, we will help form new and positive associations with these conditions, increasing understanding and acceptance. The aim is for everyone, regardless of whether they have bowel disease or not, to wear the clothing. We hope that conversations will be started, questions answered, and a positive light shone on bowel disease."

**Your emPOWERed purchase will help support vital research and support for patients, as all proceeds from sales are donated to St Mark's. View the full collection at [empoweredclothing.co.uk](http://empoweredclothing.co.uk)**



# HAPPY 10TH BIRTHDAY 40TUDE!

40tude is an innovative charity that is tackling colon cancer. For non-smokers colon cancer is the most common cause of cancer death in the UK, with one in 15 men and one in 20 women at risk of developing this kind of cancer. However if it is found early, it's one of the easiest cancers to treat.

40tude curing colon cancer was founded by Gordon, Joanna and Fraser Moore, and the charity has now raised over £1.3 million to support ground-breaking research programmes at St Mark's targeted at the early diagnosis and treatment of colon cancer. 40tude also promotes awareness of the importance of getting screened for colon cancer from your mid-40s, ideally every 5-7 years through colonoscopy or CT colonography screening.



2020 marks 10 years since 40tude first organised a fundraising event, and so far over 150 cyclists have taken part in its nine cycle challenges. The charity has organised six superb paddle-boarding marathons on the Thames and recent trekking challenges have included summits of Mount Toubkal, Mount Elgon in Uganda, and 100km treks across the

Sahara and the Wadi Rum in Jordan. As a measure of their regard for 40tude's work, representatives from St Mark's have joined every one of these challenges, inspiring 40tude's with their passion and expertise in curing colon cancer.



In addition, the list of personal challenges conducted for 40tude continues to grow year on year. In support of rugby legends **Doddie Weir** and **Tom Smith**, Scotland captain and British & Irish Lions **Rob Wainwright**, lead a charity cycle team who rode 500 miles from Twickenham to Murrayfield Stadium to deliver the match ball at the Calcutta Cup KO.

Through innovative partnerships with a remarkable group of participants, sponsors, donors and medical specialists 40tude is making a difference for the many people who are affected by bowel cancer and aims to reduce the number of people seriously affected by this preventable disease.

*Contribution from Kate Sanday, Manager 40tude.*



Congratulations to the team of intrepid trekkers, including Research Fellow **Toby Pring**, who summited Mount Elgon. The team covered an impressive 15-25km a day, through a vast array of terrain, summiting both Jackson Peak and Wagagi Summit. What an undertaking!



Thanks to the incredible team who trekked across the arduous terrain of the Waddi Rum, challenging themselves both physically and mentally. It was all worthwhile in the end, as the team completed their challenge in the ancient and beautiful city of Petra.

# BOWEL CANCER SCREENING

The English NHS Bowel Cancer Screening Programme was introduced in 2006, and currently incorporates Bowel Cancer Screening (BCS) and Bowel Scope Screening (BSS). BCS is for people aged 60-74; this group is sent a FIT kit every two years. BSS was introduced in 2013 for 55 year olds, who are invited for a one-off flexible sigmoidoscopy that they can accept at any time up to the age of 60.

The Bowel Cancer Screening Centre at St Mark's serves a population of around 1.1 million people living in Brent, Harrow, Hillingdon and North Ealing. In 2019, over 60,000 people were invited to participate in BCS and almost 15,000 people were invited for BSS.

St Mark's BCS has a dedicated Health Promotion Team, whose primary aim is to improve bowel cancer screening uptake and reduce inequalities in access to screening.

Through population mapping they have identified areas of high social deprivation and ethnic group distribution across the locality. This information is then cross referenced with uptake and positivity in results by borough, and by low uptake GP practices, to begin to build a targeting strategy. By adding the community audit element to their analysis, they can successfully identify which community organisations are best placed to work with our diverse population, to ensure that everyone is aware of, and participates in, BCS and BSS.

If you are reading this, and are eligible to be screened, we encourage you to contact your GP. Don't be embarrassed to talk about symptoms and get screened.

**Let's all do our bit to break down the poo taboo!**

## MEET THE TEAM

### *Sarah Marshall, Clinical Programme Director of BCS*

*"I have been at St Mark's for 17 years working in, and with, Endoscopy and Bowel Cancer Screening. I am lucky and privileged to work with a fabulous team, not only do I have a huge amount of respect for our multi-disciplinary colleagues, I know the respect is mutual. St Mark's treats patients and conditions which are not normally seen at other hospitals which adds to the interest of working here, in addition to the opportunities available within the gastrointestinal speciality. Interesting fact about myself? I am a left handed northerner who used to play the euphonium!"*



Bowel Cancer Screening Team

## DID YOU KNOW?

- The Wolfson Unit for Endoscopy was the first unit in London to be accredited as a Bowel Cancer Screening Centre in 2006

- Between 2013 and 2019 there was an almost six fold rise in the number of Bowel Scope procedures performed at St Mark's

- Nurse Consultant Maggie Vance was the first nurse in the UK to be accredited as a bowel cancer screener

# TISSUE ENGINEERING

Inflammatory Bowel Disease is a lifelong condition that is affecting a growing number of people in the UK and worldwide. St Mark's prides itself on being at the forefront of treatment for the disease, offering multi-disciplinary support and care. Our clinicians engage in ground-breaking medical research including tissue engineering which has the potential to transform the lives of thousands of patients.

## THE NEED

Approximately 50% of patients with Crohn's disease and 20% with ulcerative colitis will require a life-changing operation as their disease progresses, with surgery involving removal of part of the bowel. If significant lengths of bowel are removed, a patient's ability to absorb nutrition through food becomes compromised, and they will become reliant on a process called parenteral nutrition to receive the necessary vitamins and minerals. Nutrition is normally given into a large vein near the heart through a central venous line placed into the upper arm, chest or neck. Parenteral nutrition can sometimes result in serious problems such as blood infections or an upset in biochemistry. Therefore, patients need intensive monitoring. If the problem with gut function is permanent or likely to persist for a long time, some patients may be taught how to manage parenteral nutrition at home.

Organ donation may be an option for these patients however, this is only possible if a suitable donor is available and we know that there is a shortage of donors. It also means that, to avoid organ rejection, patients have to take immunosuppressant medication for life, which is associated with complications.

## OUR RESPONSE

A group of renowned scientists which now includes Dr Karin Greco, Head of Research at The Griffin Institute (formerly Northwick Park Institute of Medical Research), and Dr Simon Gabe, a Consultant Gastroenterologist at St Mark's, are working on an exciting area of research.

Their work aims to improve the lives of patients with Inflammatory Bowel Disease by generating an alternative healthy bowel tissue to replace that lost by disease. This novel approach would avoid the need for organ donation because the stem cells used to grow new bowel would come from the patient themselves.

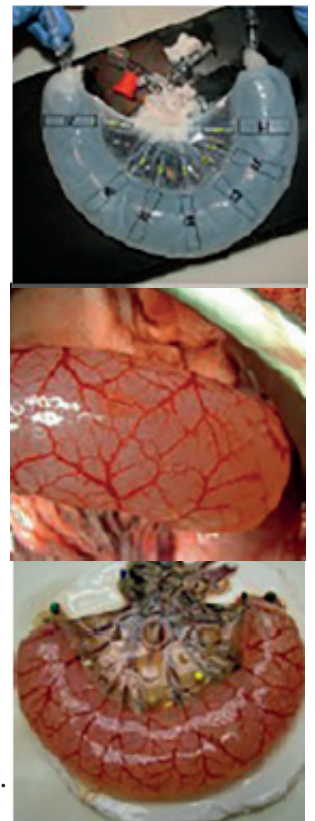
## PROGRESS TO DATE

The Griffin Institute and St Mark's Hospital have been working collaboratively on this novel research for a decade, using innovative solutions to create a scaffold, and then identify the right source of stem cells to integrate with the scaffold. The next step will be to try to grow functional and clinically relevant lengths of tissue so that patients can absorb vitamins and minerals they need through food, and can potentially be weaned off parenteral nutrition.

The team successfully created a scaffold by taking the large bowel of a pig, which is anatomically similar to a human bowel, and stripping it of all its cells so that they were left with a framework that did not recognise it was porcine. Importantly, the scaffold had an integrated blood supply to keep it alive.

The second step was to find a source of cells which could be used to repopulate the scaffold and create functional tissue. They were mindful that they would eventually be applying this to patients and it was highly likely they would not have surplus bowel tissue to harvest cells from.

After exploring the feasibility of another source of stem cells and encountering difficulties, the team's next approach was to look at stem cells harvested from abdominal fat. Their premise was that fat-derived stem cells can be easily harvested from the majority of individuals and 'turned' into small bowel cells.



The early data is promising, indicating that this approach is likely to generate a large population of cells that will behave like the cells found in the intestine. Through extensive research, the team has discovered that it is important the cells do not group together in clusters. With the fat-derived stem cells, they have found that the cells stay separate and this will make the process easier to replicate in patients.

The next step is to bring the fat-derived stem cells and the scaffold together using a bioreactor (incubator), to 'grow the organ outside the body'. Ensuring that the blood supply to the scaffold is not compromised when this happens and that the cells can be nurtured to grow to a functional and clinically relevant length will be the team's next set of challenges. The future goal is implantation into patients.

This research offers the hope of an alternative to parenteral nutrition for thousands of patients that have lost large amounts of bowel due to disease or trauma.

This research represents collaboration at its best between The Griffin Institute and St Mark's, organisations with complementary expertise. Without our donors, however, this research would not be happening. We thank everyone that has, and continues to contribute towards this cutting-edge research.



## FUNDRAISING IS A FAMILY AFFAIR

*“Through their expertise, commitment and dedication, Dr Simon Gabe and his team have nurtured Ayllah-Beau, restored her hope, which she said she had lost, and enabled her to live an active and full life”*

Chris is an avid fundraiser for the Foundation, after her daughter Allyah-Beau was referred to St Mark's Intestinal Rehabilitation Unit when she was only 19 years of age. Allyah-beau has a rare condition called Gastroparesis, and required the specialist expertise of the multi-disciplinary team at St Mark's.

As part of her fundraising activities, Chris set up a buy and sell page on Facebook and with the support of her local community she has raised a phenomenal **£72,000** for tissue engineering research.



*Chris pictured with her daughter Allyah-Beau*

We are indebted to the gallant fundraising undertaken by Chris, her family and the wider community of Cheltenham. Every charitable donation that we receive helps us get closer to achieving our vision of a future free from the fear of bowel disease.



*Father son duo Brunel and Theo*

Brunel and his son Theo are active fundraisers, who are regularly featured in our newsletters and on social media. Brunel set himself the target of raising £50,000 for the care that his wife Laura received at St Mark's, and they have so far raised a whopping £9,937 for tissue engineering research. The fundraising team congratulates them on their personal achievements, in addition to their fantastic fundraising!

# GIVING TUESDAY

The first Tuesday of December is Giving Tuesday, which is a day where a spotlight is shone on charitable causes worldwide. In 2019 we participated in Giving Tuesday and were overwhelmed with the response we had on social media, all of which was made possible thanks to our incredible contributors.



**Rachel**, winner of Miss Beauty UK came to meet the fundraising team with her friend and St Mark's patient Jasmine. Rachel is using her platform as Miss Beauty UK to help tackle stigma surrounding bowel disease and is dedicated to raising awareness of living with a stoma. Rachel has said she hopes to use her title to spread positivity and inspire others.

**Mr J Varsani**, pictured here with his wife, was treated at St Mark's for bowel cancer. Thankful for the support and care that he received he is now an active participant in research, including BiCyCLE with Research Fellows Laura and Toby, in addition to participating in a trial on Distal feeding with Research Fellow Stella.



*"Being a cancer survivor has changed my attitude to life and I feel privileged to be here enjoying my life with my family and grandchildren"*



**Nicola** got in contact to share her experience of undergoing an endoscopy at the hospital. Under the care of Professor Brian Saunders, she commended the skill and expertise of the entire team. Her message is for everyone to get screened as soon as they are offered the opportunity.

*"I can't praise the whole team of staff enough for the care and attention... get screened, it saves lives and it has saved me"*

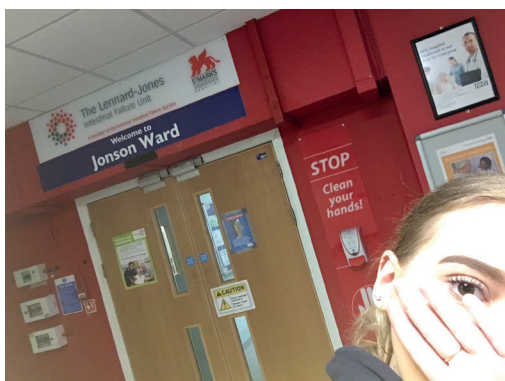
**Alice** was transferred to the Intestinal Rehabilitation Unit in 2013 after her GP had exhausted all other options. Alice has undergone several operations and has been an inpatient over the last 6 years. Alice, commends the work of the specialist staff at the hospital, and has said that

*"thanks to their expertise I was healthy enough to travel abroad for the first time in 7 years to celebrate my birthday!"*



**Kate** opened up about her experience of being treated at the Intestinal Rehabilitation Unit. She underwent operations to remove most of her ischemic small bowel which resulted in an ileostomy and being reliant on Total Parental Nutrition. After treatment Kate has now successfully had her stoma reversed and has been weaned off intravenous nutrition entirely.

*"Thank you St Mark's for your ongoing care and support, enabling me to live life without dependence on artificial nutrition"*



Additional thanks to our other incredible contributors including Stephanie, Alan, Julie, Chris, and Brunel and Theo.



# “OPENING UP ABOUT MY BATTLE WITH ULCERATIVE COLITIS”

Chris Mitchell is a vocal coach and patient under the care of Professor Omar Faiz. In the autumn of 2019 Chris opened up on his battle with ulcerative colitis and living with an ileostomy bag. Chris underwent a life-saving operation at St Mark's and has been an avid fundraiser for the hospital that saved his life, hosting events such as his successful client nights. We were immensely proud to share his story



as part of our Giving Tuesday campaign, and we commend him on his frankness talking about his condition and the impact that it has had on his life. Despite his health related adversity, Chris remained defiant, and through sheer pluck and determination he has forged a career as a vocal coach, securing high profile clients such as Boy George! You can view his poignant video on our social media pages, which has had an impressive **947k views on Facebook**.

## AS SEEN ON TV ...

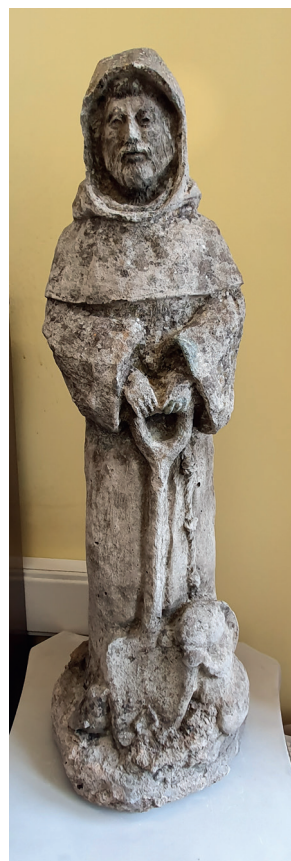
### One day that changed my life

Last year St Mark's featured in the BBC one show, following the experience of Rachel as she prepared to undergo a major operation to provide her with a functioning stoma. Under the care of Professor Sue Clark, she was successfully operated on, meaning that she was able to return to leading a happier and healthier life with her family.

### The Repair Shop

The statue of St Fiacre, which had occupied a position of prominence in the garden outside St Mark's was vandalised, and it appeared as though it was to be confined to a life in storage. Thankfully, its saviour appeared in the form of a specialist mason from the Repair Shop. Restored to its former glory, the beloved statue will soon be on display once again!

*Did you know? St Fiacre, amongst other things, is the patron Saint of gardeners and haemorrhoids. There really is a Saint for everything!*



## LOOKING TO THE FUTURE; NEW RECRUITS?



In 2019, the Academic Institute, in partnership with Consultant Surgeon Peter McDonald, hosted an open day for prospective medical students. Over 100 students attended and we hope to see some of this bright young talent back at the hospital in the future.

# COMMUNITY FUNDRAISING



## PLANTS FOR ST MARK'S

We kicked off April 2019, Bowel Cancer Awareness Month with a plant sale. This was a first for the Foundation and it was well received by visitors who were intrigued by the sight of the bright greenery greeting them on their arrival at the hospital. Tarla, one of our volunteers, organised the whole event, and began sowing the seeds two months prior, preparing vine tomatoes, chilies, and coleus plants. Tarla was assisted by her son Bhaven, a local dentist, and dedicated their efforts to her late father who was an avid gardener. She is keen to do another plant sale, as although “the event required a lot of work; it was all worthwhile in the end”. Thank you to Tarla, Bhaven, and all of our brilliant volunteers who helped throughout the week, raising £186.

## BAKING FOR ST MARK'S

We held two bake sales in 2019, one for Bowel Cancer Awareness Month, and another in December as part of our festive fundraising campaign, raising a combined total of £685. Thank you to staff and volunteers who contributed a variety of delicious baked goods, including blueberry lemon cake, snowflake biscuits, red velvet cupcakes, matzah brei and brownies. Special thanks to our lovely volunteers who helped sell the treats at both bake sales.



## VOTING FOR ST MARK'S

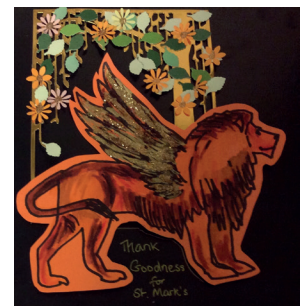
We're delighted to have been selected as one of the charities supported by the Green Token Scheme at our local Waitrose in South Harrow. As part of the scheme £1,000 is shared between three local causes every month, and we received a donation of £350 thanks to the shoppers who voted for us each time they visited the store. Special thanks to Lee, a patient of St Mark's who nominated us for the scheme.

## HOST A PARTY FOR ST MARK'S

Julie hosted an afternoon tea party with her family and friends, raising a very impressive £1,134. Julie was motivated to fundraise to show her appreciation of the care she received at St Mark's. She also fundraised via Facebook for her birthday, with her friends donating £130 in lieu of gifts. We wish to thank Julie, her wonderful friends and family for their incredible fundraising efforts. Plus, we think holding a tea party is a terrific idea!

## GETTING CREATIVE FOR ST MARK'S

Judie handcrafted 10 beautifully delicate greeting cards for us to sell. Her husband is a former patient of St Mark's and she wanted to utilise her crafting skills as a way of thanking the hospital for the care he received.



William picked up crafting with his friend Silvia to help take his mind off the discomfort he experienced as a result of his illness. Silvia got in touch to say they had made several lavender scented Christmas ornaments, and when sold on our information desk, these unique items were quickly snapped up by visitors in exchange for donations.



June donated a delightful selection of hand-knitted teddies which proved to be extremely popular with parents and pupils alike when sold at a local school fete.

## WRAPPING UP 2019

Our Christmas gift wrapping events are always a great deal of fun and 2019 was no exception. With the help of 42 volunteers, we wrapped hundreds of gifts in exchange for donations over the course of four days split between St Anns Shopping Centre in Harrow, and intu Watford. Special thanks to Eleven Plus Exams, a local business that kindly donated a variety of wrapping materials.



Additionally, the Foundation and our volunteers were kindly hosted by Kings Cross Station for a bucket collection on the 20th December, where we spent the day raising vital funds, and having a jolly good time!

## RUNNING FOR ST MARK'S

Martin, a patient of St Mark's took on the London Marathon in 2019 raising £1,535 in the process.

*"Going through all sorts of emotions, seeing my family and friends along the route kept me going and lifted my spirits. The atmosphere was amazing with every person running for a special cause close to their heart, and St Mark's is the very special charity I ran for".*



After taking up running some months earlier, Sherwyn took on the Ealing Half Marathon in September 2019 in tribute to a dear friend who was referred to St Mark's after being diagnosed with bowel cancer. *"I listened to her talk so positively about the hospital and about the care she received from staff"* he added,

*"she has advocated for the fantastic work of St Mark's".* Sherwyn smashed his target and raised £673.

12 awesome runners took part in the 2019 Royal Parks Half Marathon and collectively raised £6,348. Our team consisted of patients, their relatives, and even staff. Daniel, Martin and Neil got involved to say thank you for the care their brother Carl received for over ten years: *"without the multi-disciplinary team working at St Mark's I do not think he would be here with us today".* Carl's health continued to improve and he answered our call for help after one of our runners had to drop out. He crossed the finish line with his shirt raised, proudly displaying his stoma bag.

On behalf of the entire team we want to thank everyone who has fundraised for us over the past year, and for everyone who has supported them so generously. We simply couldn't do this without you and every donation helps us get closer to achieving our vision of **a future free from the fear of bowel disease.**

## GETTING MUDDY FOR ST MARK'S

Tough Mudder combines an epic mud run with obstacles to create a truly novel challenge. Rahul took on a 5km course to raise funds and awareness of Crohn's disease. Describing our cause as one that is dear to his heart, he raised a brilliant £1,083.

A team of employees from insurance company Heath Crawford took on the 10mile course after their colleague John was treated for bowel cancer at St Mark's.

The dedicated team of fundraisers raised a combined total of £4,563, which is absolutely fantastic! After the event, participant Karen said: *"We all managed to complete the obstacle course without anyone having to go to A&E!"* (Phew!)



# DID YOU KNOW?

The 25th April is the feast day of St Mark. In Venice, where he is patron Saint, the day is a public holiday so people celebrate by attending mass, concerts, carnivals and visiting markets. The feast day also coincides with the Festival of the Blooming Rose, where it is customary to give a rose bud to a loved one.

Y Z S C I N N O V A T I O N E  
 I R B I P Z R X O Z N H O L D  
 D P O O T S K E X Q A I S A U  
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Bowel  
 Digestive  
 Hospital  
 Pouch

Colitis  
 Doctor  
 Inflammatory  
 Research

Consultant  
 Education  
 Innovation  
 Saint

Crohns  
 Foundation  
 Medical  
 Salmon

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There are a number of ways you can support St Mark's, a hospital that has been improving lives since 1835, including: **donating**, **volunteering** at events, **fundraising** using a special occasion, **in memory of a loved one**, or **leaving a gift in your will** as a lasting legacy. You can even **let people know who we are and what we do**. If you would like to donate to one of our research programmes, please contact us.

## CONTACT US IN ONE OF THE FOLLOWING WAYS!

w: [www.stmarkshospitalfoundation.org.uk](http://www.stmarkshospitalfoundation.org.uk)  
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 t: 020 8235 4092/4044

## TWEET, LIKE, FOLLOW AND WATCH US IN THE FOLLOWING WAYS!

 @bowelsofstmarks  
 @bowelsofstmarks  
 @stmarkshospitalfoundation  
 St Mark's Hospital Foundation

