

newsletter

Update on Stem Cells Research Programme



Coronary Heart Disease is the most common cause of death in the UK

The Facts

- Every **seven minutes** a person dies of a heart attack in the UK
- Coronary heart disease is responsible for almost 74,000 deaths in the UK each year
- Over **750,000 people** are living with heart failure
- Approximately **175,000 people** in the UK will suffer a heart attack this year
- There are over **1 million people** living in the UK who have had a heart attack
- Stem cell therapy could restore damaged heart muscle cells and in so doing improve the quality of a patient's life.

revolutionary treatment

The Heart Cells Foundation, at Barts Health NHS Trust, is funding the research and development of a revolutionary and potentially life-saving treatment that uses a patient's own adult stem cells to repair the heart.

This ground-breaking therapy could help those with heart disease, whether they have suffered a heart attack or have developed a weak heart for other reasons.

The Trials

REGENERATE-IHD, REGENERATE-AMI, **REGENERATE-DCM and BAMI**

Trial 1 – Regenerate IHD, treated patients suffering from heart failure from ischeamic heart disease. It has now finished recruitment and follow-up. We have received extremely positive feedback from patients who have felt a marked improvement in their health and everyday lives. We have analysed the data and it has shown positive results towards patients treated with stem cells. We are currently awaiting publication of these results in medical literature.

Trial 2 – Regenerate AMI, which treated patients within 24 hours of suffering a heart attack. It has completed its primary outcome and we are now in long term follow-up. We received good feedback from patients involved. We are analysing the data and hope to publish these results soon in medical

Trial 3 – Regenerate DCM, treated patients with congenital and inherited heart failure and has now finished. The results, which we are in the process of publishing in the medical press, have shown a positive benefit for patients treated with stem cells over those treated with a placebo.

Trial 4 – BAMI, treating patients who have recently suffered a heart attack, injecting stem cells into the heart a few days later. Our leadership of the BAMI trial has come about as the direct result of the support of the Heart Cells Foundation in our own UK based trials. This is the biggest, most ambitious trial to date.



Professor Anthony Mathur Head of Cardiology (Clinical and Research Lead)

Dear Heart Cells Foundation Supporters

When we started our trials of stem cell therapy to treat heart patients over 10 years ago we never envisaged the degree of success that we have seen over this journey. We have succeeded in raising the necessary funds to perform state of the art research into a completely new area of medicine and been fortunate enough to see some amazing results. We have succeeded in finishing these trials – no other Institution in the UK has completed such an extensive programme of research. Most importantly we have seen the difference being involved in this research has made to patients and their families. I am amazed by these successes and this drives my motivation to take these achievements forward in the hope that we can deliver a new treatment for patients with heart disease that will change their lives.

The last 10 years have not been easy – being 'first to the post' has created its own challenges and I have been fortunate enough to have been supported by an excellent team. Given what we have achieved and what it took to do this I hope that you will continue to support our efforts in these next stages.

We are now planning the final trials that we need to perform to move stem cell therapy for the heart into the clinic and as ever hope that you will continue to support us. Thank you again for what you have already done to make this a unique and moving journey.

A. Mathew

Professor Anthony Mathur

Heart Cells Foundation Timeline

2004

Heart Cells Foundation began fundraising at Mansion House. Trial 1 The first stem cell

trial to be ethically approved in the UK.

2005

First trial patient recruited to a stem cell trial in the UK.

2007

Trial 2 Receives ethics approval.

2008

Trial 2 First patient recruited.

2010

Trial 3 Receives ethics approval and recruits first patient.

2011

Trial 1 Recruits last patient.

2012 Trial 3

Recruits last patient.

the **story** so far...





The Research Team

We work well as a close team under the guidance of Professor Mathur and with the help and support of our research doctors and nurses. For us it's a very exciting time, pioneering stem cell therapy that could provide truly significant benefits to thousands of people in the UK who suffer the debilitating effects of heart failure caused by heart disease.

Our studies have started to show us that adult stem. cells in patients own bone marrow can begin to repair damaged hearts. There is enormous value in the fact that we are all playing such a fundamental role, in not only stem cell trials, but the future of a potential breakthrough in healthcare and medical science.

None of this would be possible if it were not for the Heart Cells Foundation, as we are dependent on the charity donations we receive. So please take great pleasure in what you are doing and how your donations are making such incredible changes in our patients lives now and the lives of those in the future.

Barts Health NHS Trust Research Team

Successful 'HCF' Heart Stem **Cell Regenerate Trials**

Paving the way for the world's largest adult **Stem Cell Heart Attack Trial**

Trial 4 aims to recruit 3000 patients from across the UK and Europe. We recruited patients in the UK in September 2013 and recently the BBC filmed our team treating the first patient in the UK with stem cells. Similar to the criteria of the Regenerate AMI trial, the BAMI trial is treating patients who have recently suffered a heart attack, injecting stem cells into the heart a couple of days later. Nearly 100 patients have been enrolled into the trial so far and with more than 30 sites opening across Europe and we look forward to a surge in recruitment.

Q So What Are Stem Cells?

A Stem cells are the body's master cells. They are unique because unlike other cells they can turn into almost any other type of cell in the body.

Adult Stem Cells – These are found in all of us and are considered to be stem cells that can give rise to a small number of different cell types.

Embryonic Stem Cells – These are derived from embryos. Specifically, embryonic stem cells are derived from embryos that develop from eggs that have been fertilised. Embryonic stem cells are totipotent and pluripotent: a fertilised egg is considered totipotent, meaning that its potential is total; it gives rise to all the different types of cells in the body.

Barts Cardiology are *not* carrying out any research with Embryonic Stem Cells.

Adult stem cells are thought to be the body's natural repair system. There are several different types depending upon which organ they are destined to repair. Unfortunately this in-built natural repair system was never designed to cope with severe disease such as heart attacks.

In our research we hope to harness these natural repair properties and enhance the positive effects by injecting adult stem cells directly into the area of damaged heart in a concentrated form thereby improving the chances of repair.

Since these cells are purified from the same patient there are no problems with rejection and no need for medication to treat side effects.

The Trials – Adult Stem Cells

Adult stem cells have been injected into patients with heart failure as well as those who are having a heart attack to see whether the damage caused by these conditions can be reversed.

Adult stem cells have been shown to have the ability to develop into new heart muscle cells and cells forming the wall of blood vessels under carefully controlled conditions in the laboratory.

2013

Trial 1

Ends 1 year follow up of all patients.

Trial 2

Recruits last patient

Trial 3

Ends 1 year follow up of all patients.

Trial 4

Recruiting patients in Germany and UK – Largest stem cell trial for heart disease in the world.

2014

Trial 1

Ends 2 year follow up of all patients.

First patient treated in London filmed by the BBC.

Patient Gathering at The London Chest Hospital.

All trials finished recruiting and the results are currently being submitted for publication in scientific journals before we can officially announce the outcome.

Placebo Patients Treated

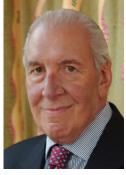
Appeal continues to raise funds for phase 3.



a dream becoming a reality...

Dear Friends

On 3 July 2014 we joined with Barts Cardiac Research Department and hosted a Patients Gathering at the London Chest Hospital. The day was informative, inspirational and emotional. Gathered in the room were patients and their families who had taken part in the Regenerate Trials. Having been involved in our research programme the patients' results proved to be very positive in fact there was an 88% success rate. They were now leading busy lives and enjoying every day to the full, this was time that some of them had been told they would not have. One patient told us - 'We had given him back his life'.



Founder Ian Rosenberg

Having reached a birthday milestone of 10 years since my husband and I started the charity to support the stem cell research programme, by seeing and meeting all the patients at this gathering, we could see first hand the results of the treatment and the positive impact it was having on patients and their families it was lan's dream becoming

We look forward to raising more funds to enable this important research programme to continue to phase 3. Once this has been achieved it will ensure that this treatment will be available to all on the national health.

Jenifer Rosenberg OBE

J. cn- /

Paul Syrett
I have always had heart related issues and in August 2009 I was diagnosed with Dilated Cardiomyopathy as a result of contacting Swine Flu in May 2009. The conversation with the heart consultant included:



"You will never work again, you have probably weeks to live and are actually too ill to survive any surgery. So go home, rest, spend time with the kids and put your affairs in order. We will endeavour to get you strong enough for the ICD operation over the next 6 weeks."

I had the ICD operation in October 2009 and subsequent open-heart surgery in February 2010 but the longer term prognosis was not good and my health and heart continued to deteriorate.

In February 2010 after meeting Professor Mathur I was accepted on the REGENERATE DCM Trial. Within 3 months we noticed a major improvement in my health and general health capabilities.

The Stem Cell Trial results speak for themselves – I am still here, leading a pretty normal life. If you met me, you would not know I had been that ill and at deaths door. I can't get out on the hills with my mountain bike yet!, but I now coach a local Under 10's football team. As my eldest Daughter says:

66 Please thank them, I still have a Dad.













success stories...





Owen Palmer

52 years old

Having suffered an unexplained heart attack in July 2010 at the age of 47, my prognosis was not good. From living an active life that included fencing, sailing, squash and more I was reduced to someone who would breathe heavily and sweat profusely if I tried to walk a hundred yards, requiring rest after such exertion. I was fearful of another heart attack and despondent about my future. The best I was told to hope for was that by taking over 2500 tablets a year for the rest of my life it should hold off another heart attack and potentially increase my heart's pumping capability by 2 or 3 percent.

Since the one-off stem cell treatment in November 2011, I have gone against convention by reaching a stage where I regularly take my dog of a walk of more than a mile and regularly engage in the Olympic sport of fencing, sometimes fencing against current commonwealth gold medalists. My life has changed dramatically; I am now an active contributor to society, training young children to fence as well as spreading my smile throughout my family.

To the supporters of HCF I would like to say Thanks. I was told by my cardiologist after the heart attack that I would not get better and I should come to terms with this. Because of HCF supporters my cardiologist now says in all her years she has never seen anyone achieve an improvement such as mine and that I stand out among her patients.



Denise Williams

58 years old

My name is Denise Williams I am 58 years old; I live in Greater Manchester with my partner Marcin and my son Alex.

In 2005 Alex suffered brain damage in a car accident, he was 16 years old. In August 2010 I was hospitalized with moderate heart failure which despite the medication had worsened to severe by Xmas 2010. Everyday life became more of a struggle. I had days when I felt too exhausted to get out of bed, unable to climb a flight of stairs without resting and bouts of breathlessness.

I began withdrawing from Alex, struggling to put my affairs in order to lessen the burden when I died; I became depressed which affected my ability to cope; Alex kept telling me he would have nothing left to live for without me and would kill himself to be with me...

...and then there were Stem Cells and hope. Recent test results show my heart has gone from being severely impaired and has now returned to within normal limits; I have not suffered from breathlessness and my energy levels have increased significantly as has my mood.

I feel blessed and privileged to have been given the opportunity to participate in the trials. "Thank you" seems inadequate to express my gratitude to the supporters of HCF for their generosity and continuing support; you have given me hope for the future and a future for my son.



Philip Ford

53 years old

After 3 Heart Attacks, 6 Stents, I was on my second ICD and an Aortic Graft, life was a challenge.

Before the trials I was very limited in the activities I could do, a simple task of walking up the stairs had me breathless. Today, after the treatment, I can take our dog for a walk, unheard of before hand.

I was assessed for a heart transplant, after the treatment, I am no longer on the transplant route. I would like to thank the Heart Cells Foundation for allowing me to have the treatment kindly paid for by its Generous Benefactors, YOU!

THANK YOU, because without you I would not be where I am today!

Donating to Heart Cells Foundation will enable the trials to continue and in the future treat heart patients like myself and with your help I have no doubt in my mind, you WILL be saving lives.

I thank you from the bottom of my heart and dig deep and donate.

During the Patients Gathering we filmed the patients stories, 'A dream becoming a reality'. This video can be seen on our website

www.heartcellsfoundation.com where you can also donate to support our charity.

Cookery Demonstration

Heart Cells Foundation continued its successful series of Cookery Demonstrations and hostesses allowed us to use their stunning homes in London as the guests were guided through the 'Flavours of the Middle East' with Nadia Benaim. We then shared the 'Seasonal Delights' with Sindy Caplan followed by 'Eating Our Way to Vitality' with Lisa Roukin.





















Champagne Afternoon

The very creative John Carter delighted us all with an afternoon of Flower Arranging followed by a spectacular Champagne Tea at the beautiful home of Susanne Nedas.





























Golf Day at Coombe Hill 13 May 2014

Coombe Hill was in beautiful condition and proved a great challenge for the 18 teams who braved a showery day but thoroughly enjoyed it. Owen Palmer, a patient who had been on one of the trials, played his first round of golf since his treatment and was in fine form.

Following the golf, a superb buffet lunch was served, with speeches given by Professor Anthony Mathur who updated everyone on the progress of the Trials and Owen Palmer, who spoke about how much his quality of life has dramatically improved.

Jenifer Rosenberg OBE presented the prizes and HSBC Private Bank led by Christo Scott were the winning team.

The day was very successful and raised more funds than in previous years.





Philip Ford, Denise Williams, Paul Syrett and



Dame Esther Rantzen DBE, Stephen James, Jenifer Rosenberg OBE



Louise Naftalin, Peggy Brett, Jenifer Rosenberg OBE, Susan James, Rosemary Davis, Philippa Bradley, Lady Young of Graffham, Antoinette Soning



Stephen and Susan James



Anita Leslau and Arnold Fulton



Sir Michael Heller, Lady Estelle Wolfson, Lady Morven Heller, Linda Rosenblatt, Harvey Rosenblatt



Jeffrey and Susanne Nedas

Gala Film Night & Dinner 12 November 2014

Celebrating 10 years of the Heart Cells Foundation, we held our annual event and this year was a private screening of the award winning Imitation Game. Many loyal supporters attended the event and to add to the celebrations we were delighted that 4 of the patients joined us for our Gala Film Night sharing with us their stories of how they have been given back their lives since participating in the Heart Cells Foundation Trials.

This event raised a record amount of money over £200,000. The guests watched the premiere of our Appeal Film which can now be seen on the Heart Cells Foundation website.



Fiona and Peter Cruddas



Myra Waiman and Adrian Magnus



The May Fair Hotel



Lady Irene Hatter and Sir Maurice Hatter



Nicholas and Rosalyn Springer



Sarah and Lloyd Dorfman CBE



Nick Schulman and Antoinette Soning



Claire Kasfiner and Roy Shai



Harvey and Angela Soning



Jenifer Rosenberg OBE, Philippa Bradley



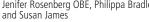
Nigel and Lynne Ross



Peggy and Paul Brett



Jayne Edwardes and Valerie Brake



The Heart Cells Foundation will be running a series of exciting events throughout the year, please email Sara Beare at

admin@heartcellsfoundation.com to be included on our invitation list.

Cookery Demonstration and Lunch

Join us for one of our Cookery Demonstration and Lunches, held at stunning private homes in London, with guest Chefs full of character and a passion for food. Dates to be confirmed on the Heart Cells Foundation Website.

Golf Day

The eleventh Heart Cells Foundation Golf Day will take place at Coombe Hill Golf Club. 14 May 2015

Away Day

A day to enjoy a trip out of London for lunch and a tour of a private art collection in a country home. 18 June 2015

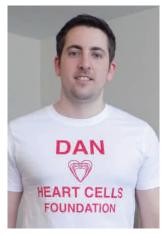
Gala Film and Dinner

The annual Heart Cells Foundation Gala Film and Dinner is planned for the Autumn 2015 The event is the highlight of our fundraising calendar.

Running to the Finish Line to Mend Broken Hearts

27 year old Daniel Humphries a personal trainer from London has begun training for the London Marathon 2015 to help raise funds for the Heart Cells Foundation.

Daniel has an interest in Cardiovascular Health as his father had a heart attack in 2006. We wish Dan the best of luck. To support Dan or make a donation please visit our website.



Founder IAN ROSENBERG

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Jayne Edwardes
Kaye Finegold
Susan James
Louise Naftalin
Jenifer Rosenberg OBE
Antoinette Soning
Lady Young of Graffham

Raising Money for Heart Cells Foundation

If you or your family would like to hold an event or be sponsored for a sporting challenge – let us know and we will update our followers on our website and Facebook – we can link your event on our website in order that your supporters may donate directly to the Heart Cells Foundation.

HOW TO DONATE

Heart Cells Foundation relies solely on your individual or corporate support. Whether you simply want to make a donation or help organise a fundraising event, there are lots of things you can do to help us achieve our goal.



Sign up for Gift Aid and Heart Cells Foundation can reclaim 25% of the value of your donations. As a donor you may be eligible for further tax relief on your donation. You can now donate using a Credit or Debit Card on our website



