Coronary heart disease is the UK’s single biggest killer.

For over 50 years we’ve pioneered research that’s transformed the lives of people living with heart and circulatory conditions. Our work has been central to the discoveries of vital treatments that are changing the fight against heart disease.

But so many people still need our help.

From babies born with life-threatening heart problems to the many Mums, Dads and Grandparents who survive a heart attack and endure the daily battles of heart failure.

Join our fight for every heartbeat in the UK. Every pound raised, minute of your time and donation to our shops will help make a difference to people’s lives.
Our Annual Review tells some of their stories and celebrates their inspirational contribution to Team BHF.

Because by working together we can make a life-saving difference.
INTRODUCTION

In 1979, my father died from a heart attack. He was 57. His early death, and the premature death of so many others, makes me determined to play my part in the fight against heart disease.

That determination is clearly shared by everyone in Team BHF – a team I was fortunate enough to join this year. It’s a team with a deep-rooted dedication to the fight for every heartbeat which has meant we’ve had an incredible year.

But none of our achievements would have been possible without our supporters giving their money and time to the fight.

Those donations have meant our scientists can carry out their life-saving work in labs the length and breadth of the UK. You’ll see how the work of researchers like Dr Amer Rana and Professor John Danesh has put us on course to win the fight. And our Mending Broken Hearts Appeal is keeping the BHF at the cutting edge of regenerative medicine, moving us ever closer to helping those who live with the debilitating effects of severe heart failure.

We have lots to celebrate and owe everything to our supporters who have given so generously. They have our thanks for getting us this far, but our fight against heart disease cannot end here. Our scientists have put us within sight of victory but they need continuing support and donations for their vital work.

Simon Gillespie
Working as a team towards a common goal – the reduction of suffering from heart disease – is a defining characteristic of the British Heart Foundation (BHF).

We need to ensure that every penny we spend gains maximum effect in our fight against heart disease and we recognise that scientific progress can often be accelerated by collaboration. So this year we have taken steps to enhance the way our leading scientists work together. The second round of our successful competition for BHF Centres of Research Excellence (CoRE), which will see the number of our CoREs grow from four to six, has stimulated new collaborations between physical scientists (physicists, mathematicians, chemists) and biologists within the same university. Good teams need good leaders and we’re pleased to have awarded three new BHF professorships in Oxford, Glasgow and Manchester universities. It brings our complement of BHF professors to 32 – all outstanding leaders in their research fields.

But our teamwork isn’t confined solely to our research activities. Our pioneering approaches to patient care are also showing the new Healthcare Commissioners how to treat patients better and for less money, and we’re working closely with England’s new National Clinical Director for Heart Disease to help him deliver the best possible care. The Charity is ensuring that it gains added value for its investment so that today’s patients benefit from better care and tomorrow’s patients benefit from the outcomes of our research.
What attracted me to research as a student? That’s easy. It was the excitement of discovery and the application of science.

But it’s not just the excitement that drives me now; it’s the people I meet. I work on a disease called pulmonary hypertension, where problems in the lungs cause the heart to fail. It’s devastating – most people die within five years of diagnosis. I meet or hear about patients all the time and that spurs me on. Constantly in my mind I know the urgency. Time is ticking, so we have to work as quickly as we can.

Together with colleagues in Cambridge, I developed a way to make stem cells from routine blood samples. Using our procedure, researchers can produce an unlimited supply of stem cells from patients’ blood – which means we can study heart diseases and test potential medicines quicker. And as anyone with pulmonary hypertension or heart failure will tell you, there’s no time to waste.

“Time is ticking, so we have to work as quickly as we can.”
BUILDING FOR FUTURE SUCCESS

£7.5 MILLION
3 NEW CENTRES TO UNITE WORLD LEADING SCIENTISTS

Through its Mending Broken Hearts Appeal, Team BHF is funding groundbreaking research to help end the suffering caused by heart failure. This year we made strides in our mission by launching three BHF Centres for Regenerative Medicine. With our pledge of £7.5 million, the Centres unite world-leading scientists using different approaches to defeat heart failure.

- **BHF Professor Paul Riley** is leading the quest to discover how the heart might repair itself using cells already inside us.
- **David Newby** – one of our Professors in Edinburgh – is heading up research to grow new blood vessels; vital for creating a blood supply to new heart muscle.
- **Professor Sian Harding** is leading a group of researchers at Imperial College London to develop stem cell therapies for heart failure. The three Centres will transform research into heart failure and have been built on your donations to the Mending Broken Hearts Appeal.

But we need your continued support to fund the centres. Over 16,000 people are now Hope Sponsors, pledging a regular gift to the Appeal. It means we can pledge crucial long-term support for groundbreaking research.

Events like our glamorous art and fashion evening Tunnel of Love and the fascinating Science Museum Late with MasterCard have also helped to bolster vital support for Mending Broken Hearts. At the Science Museum you could see a heart operation, train in CPR and meet top heart scientists.

Trusts and Foundations played a big part too. For example, the Thompson Family Charitable Trust gave a generous £100,000 to help us launch the new research Centres. Scientists from universities across the UK and abroad are now coming together in the three Centres and will be working tirelessly towards our goal. They need all our support to succeed.
In November, Dr Amer Rana’s research results were published. Rana and his colleagues in Cambridge had succeeded in producing stem cells from a blood sample. Stem cells are essential for studying, and potentially for treating, heart diseases.

In recent years scientists have found a way to make stem cells from skin, but that needs an invasive biopsy. Dr Rana isolated cells known as L-EPCs in a simple blood sample, and by developing a specific experimental procedure, he turned them into stem cells.

By adding other substances, stem cells can be reprogrammed to transform into different types of cells such as arterial, venous, or heart muscle cells. This can provide a limitless supply of human tissue for use in heart research.

An epic research programme has revealed a new target in our fight against heart disease. By analysing data from many studies, involving hundreds of thousands of people with heart disease around the world, our scientists are finding hidden weapons that will help us beat it.

This year researchers in Cambridge, led by BHF Professor John Danesh, turned the spotlight on a new molecule called interleukin-6. IL-6 for short.

It took the work of hundreds of scientists to prove that this tiny molecule has a potentially big effect on our hearts.

Whether you’ve given us money, donated to our shops, volunteered or taken part in an event, you’ve been part of this crucial discovery – and all the discoveries made by our researchers this year.
Our Clear and Present Data report, raised scientists’ concerns about the red tape that is stifling the recruitment of patients to clinical trials and hindering the use of data from medical records for research. This bogs down progress, costing lives. Westminster is taking notice and the issues are being taken to Brussels. We hope that regulation will be simplified to speed up research, while ensuring patient confidentiality remains secure. Many of our researchers pay back our support by fundraising for us. This year BHF Professor Andy Baker and Dr Keith Oldroyd completed a gruelling 200km cycle challenge in the south of France. The pair from Glasgow raised nearly £4,000 in the fight for every heartbeat.
“Thanks to BHF research, our little girl is thriving.”

We were terrified we would lose our baby girl. I took Rosanna for a routine check-up when she was six weeks old. The GP listened to her chest and immediately knew something was wrong. Then specialists found she had a tumour in her heart. It was moving around, getting in the way of the blood flow. Without treatment she could die in days, so the next thing we knew she was being prepped for surgery. The operation lasted eight hours, and she stayed the night in intensive care – it was horrible to see her all wired up. She slowly got better and the doctors said getting her active would help her recovery. So when she was 10 weeks old we took her swimming. She loved the water and we’ve never looked back. Rosanna could swim at 13 months, before she’d even taken her first steps!

Thanks to BHF research, and to the amazing medical teams, our little girl is thriving. But some babies don’t make it. Rosanna is swimming for them, and to make sure we have more little miracles in the future.

Mick and Sanam Ogden.
FUNDRAISING IS OUR LIFELINE

EVERY BAG MAKES A DIFFERENCE

Your local BHF Shop makes a vital contribution to our fight for every heartbeat. But Shops depend on selling the goods that you donate. In September a rallying call went out across the UK to back the Great British Bag-athon.

Former Olympian Fatima Whitbread joined Team BHF to raise awareness of the stock donation campaign. She spoke out in magazines like Woman’s Weekly: “We want everyone to join in by filling up a bag full of lovely things. Or you can take your own Bagathon challenge with friends, family and colleagues to fill many bags to donate to your local Shop.” Many Bag-athoners pledged their support online and joined a league table of top collectors. The chart-topper amassed an amazing 157 bags! Bags filled with clothes, shoes, bric-a-brac, DVDs and books are worth, on average, £20 of life-saving research. Every bag makes a difference and we wanted each Shop to raise 1,000 bags in September.

In total, the Great British Bag-athon raised a staggering 576,673 bags of lovely things to sell. That’s more than if every single household in Birmingham, Swansea and Carlisle had donated one bag each.

If you took part in the Bag-athon, donated something, volunteered or bought anything from our Shops last year, you helped us increase our retail profit to £31 million – more that can be invested in vital heart research.

IN TOTAL THE GREAT BRITISH BAG-ATHON RAISED 576,673 BAGS TO SELL.
Last year’s London to Brighton Bike Ride

Team BHF are champions when it comes to cycling. In 2012, thousands more of us met in South London, saddled up, and set off towards the seaside – raising pounds with every pedal stroke.

And this year two new events were added to the legendary London to Brighton Bike Ride. As well as the famous June road ride from Clapham to Brighton seafront, our riders could choose do it by night, or off-road.

Offering a challenge for every cyclist, the trilogy encouraged more than 31,000 of us to get on our bikes in the battle to beat heart disease. Together, we pedalled a distance equivalent to 70 times around the earth and raised more than £4 million.

The two new spokes in the London to Brighton trilogy are great examples of the exciting range of BHF events happening across the UK. Whether you like to walk, run, cycle or swim – or you want an incentive to get started – there’s an event for you to have fun, get fit, and save lives.

In June, Team BHF’s youngest swimming star, Rosanna Ogden, helped our Shops raise more than half a million pounds by becoming the face of the Little Hearts campaign.

Shoppers bought Little Heart badges for £1 to fund vital research that could help children like Rosanna in the future.
February’s National Heart Month is when we really paint the town – not to mention cities and villages – red. This year your support helped deliver two great new ways to raise money for our fight for every heartbeat.

Rock Up In Red challenged the UK to turn offices, schools, community groups and clubs red on the first day of February. The Saturdays’ pop queen Mollie King became the face of National Heart Month and urged fans to join in.

You shared scores of snaps showing colleagues in scarlet sweaters, ruby-robed research teams, babies in red romper suits and even dogs in crimson costumes! Forty-nine Westminster MPs also saw red and posed for photos to show their support.

You could even accessorise your outfit with a choice of two red limited-edition bags from our partner, Radley.

We asked for a donation of £2 but many of you raised much more by holding fun red-themed events.

Love Notes – purchased and posted in the windows of our Shops – are always a popular way to support National Heart Month. This year we added a funky new version. Striking galvanised steel structures, more than two metres high and spelling out LOVE, were placed at two top London locations. Ten thousand passers-by paid £3 to write their message on a beautiful heart-shaped metal plate and padlock it to the installations.

Together, we raised a total of £1.4 million during National Heart Month. Thank you.
If you’d have told me back at the start of 2012 how my year would pan out, I’d have thought you were having a laugh.

It was February last year when Mikey, Brian, Paul and I went for a round of golf. There’s always plenty of banter, so when I fell to the ground and rolled over on the fifth green, they thought I was just messing about. But it was no joke. I was unconscious and wasn’t breathing – I’d had a cardiac arrest. Thankfully they called 999, cleared my airways and Paul started chest compressions.

The previous week Paul had seen the BHF’s advert with Vinnie Jones doing Hands-only CPR, so he had a go.

What he did kept the blood pumping to my brain and that bought me time until medical help arrived. When I’d recovered I started doing some promotional work with the BHF and out of the blue they asked me to appear in their new TV advert. It was surreal. It seemed like one minute I was in a hospital bed and the next I was stood next to Vinnie Jones!

To this day the doctors still don’t know why my heart stopped. I have an internal defibrillator fitted to my heart now so if it happens again I’ll get an automatic shock to restart it. It was quite daunting to go out on my own at first but I’ve got much more confident and it’s given me a new lease of life.

“One minute I was in a hospital bed, the next I was stood next to Vinnie Jones!”
For every survivor of a witnessed cardiac arrest that happens out of hospital in England, four others die. But if bystanders carry out CPR, a victim is more than twice as likely to live.

And we know of more than 30 Alans who are only alive today because someone saw our original advert showing Vinnie Jones going Hard and Fast in the centre of the chest to the beat of the Bee Gees’ classic, ‘Stayin’ Alive.’

We wanted to give even more have-a-go-heroes the confidence to fight for someone’s life, so at the end of 2012 we ran the TV campaign again, with a twist. Alan appeared alongside Vinnie and we created a training film starring Mini Vinnie to take the Hands-only message to young people and urge our governments to make sure children learn emergency life support (ELS) skills at school.

The Sun newspaper backed our petition calling for ELS to be on the English secondary school curriculum. More than 100,000 of you signed your names and Fabrice Muamba – the Premiership footballer who collapsed during a match in March 2012 – delivered your signatures to 10 Downing Street.

Our Hands-only CPR TV ads ran for a month and Facebook and Twitter buzzed with news of Vinnie and his survivors. More than three million potential life-savers have now watched one of our Hands-only CPR films online.

Most importantly we’ve been contacted by more Alans; men and women who owe their lives to the everyday heroes who carry out Hands-only CPR.

For every survivor of a witnessed cardiac arrest, four others die. He’s alive today because his friends remembered our TV ad.

Vinnie Jones in Hands-only CPR
If your heart stops out of hospital, you don’t have a good chance of surviving. In fact, only one in five do. We’re on a mission to change that by making sure more people know what to do in the ultimate medical emergency.

Vinnie’s been spreading the message and, across the UK, Team BHF has been making governments listen. In Northern Ireland, where survival rates are less than 10 per cent, BHF lobbying has got results. The Health Minister is developing a community resuscitation strategy to be published in October 2013. Experts from right across the Charity also worked closely with the Department of Health in England to make sure its new Cardiovascular Disease Outcomes strategy for heart patients was right. The strategy was published in March and included a priority to get more people trained in emergency life support skills. And in Wales we’re fundraising to train more people in CPR and put more defibrillators in the community. We’ve already raised £40,000 and have put 30 of the life-saving machines where they’re needed the most. With your support, we hope to hit £200,000 and save even more lives.

This year marked 30 years of the famous annual quit smoking drive, No Smoking Day, helping cut the 100,000 lives lost each year to smoking.

On Wednesday 13 March we urged the nation to swap fags for swag after our survey of more than 2,000 smokers revealed their biggest motivation to quit was to save money. No Smoking Day gave extra encouragement by showing what you could afford to buy days, weeks or a whole year after ditching the habit. We worked with mobile app innovators Blippar so smokers could scan their cigarette packet and see it go up in a virtual puff of smoke, transforming into what they could afford by quitting, like a family trip to the cinema or even a dream holiday.

Success relies on teamwork across the UK. Schools, health services and workplaces helped by running events on the day. It’s the UK’s most cost-effective smoking cessation campaign and this year it encouraged one million smokers make a quit attempt.

We released a report urging support from UK governments to help us shatter current predictions that five million Britons will still smoke in 25 years’ time. Investment in NHS Stop Smoking Services, more support for smokers, and the introduction of standardised packaging for tobacco products will help us banish smoking for good. We want every day to be a No Smoking Day.
"I’m part of Team BHF and it makes me feel good."

I thought that only old people had heart attacks. I was 40. The blue lights were flashing, I was being rushed to hospital and all I could think was ‘they’re going to be furious when they realise it’s indigestion’.

I’d been feeling terrible all day at work and it got worse when I got home. I was very sweaty and pale. When my friend came over she took one look at me and called 999 before I could argue. I had no inkling it was a heart attack. I burst into tears when the doctors told me. I was feeling so alone, and very vulnerable.

Then Diane, a BHF nurse, came to see me and it changed everything. She took time to explain what had happened and about the tests that I needed. Just to know I could talk to her if I needed was a lifeline.

After the heart attack I completely changed my lifestyle, my job, and my attitude – I didn’t let anything stress me out. And I joined my local BHF fundraising branch in Camberley. When I raise money I feel like I’m paying back bit by bit for what Diane did for me. I’m part of Team BHF and it makes me feel good.”
Kay Attwood had a heart attack. She knows that our fight for every heartbeat is vital for women across the UK. But Kay is in the minority. Most British women underestimate the threat coronary heart disease (CHD) poses to them – they think it’s a male preserve.

We must defeat this notion for good, so this year we worked with Flora pro.activ to deliver a clear message to all women: CHD is one of the biggest killers of women nationwide. Simple changes to diet and lifestyle can make a big difference.

We spoke to women through Flora pro.activ’s advertising on TV, in print and online. BHF appeared on special packs of the spread, and we appealed directly to Team BHF’s hundreds of thousands of Facebook and Twitter followers. Loveyourheart.com was created as a hub for lifestyle advice and inspiration to make heart-healthy changes.

Flora pro.activ also pledged to donate £750,000 over three years to support Team BHF’s life-saving work.

Before partnering with Flora pro.activ our research showed that the majority of women were more worried about breast cancer than heart disease. The sad truth is that heart disease kills almost three times more women than breast cancer. After our first joint campaign in September, half of women surveyed were more aware of their risk of developing CHD.

Flora pro.activ and Team BHF will be continuing the fight, and talking to even more women, in 2013.

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NOW WE'RE TALKING

TEAM BHF ALWAYS HERE FOR YOU

You’ve had the treatment, you’ve got the pills. But when heart disease hits, reassurance and support from someone you trust can make a world of difference.

Team BHF is always here for you; from the health professionals we support on the frontline of community care, to our telephone helpline and leaflets that provide support and vital information when you need it.

Our free Heart Matters membership programme took us into many of your homes this year. Membership includes our regular magazine, which got a new look to make it even better for our 1.3 million readers. And more than 31,000 of you contacted our team of cardiac nurses and heart health advisors on the Heart Helpline. Amongst a vast range of topics, they answer lots of questions about the many medicines you’ve been prescribed, and their side effects. So this year we ran a campaign all about medicines. We featured images and gags from legendary comic Tommy Cooper, who died from a heart attack, in our radio adverts and leaflets. We used his catchphrase ‘Just like that’ to encourage people to call a dedicated helpline for medicines information and support. We talked to more than 3,000 people and many more visited our website, which as always provided a wealth of clear and simple information to read and free publications that could be downloaded or ordered. With our help, thousands of you made sense of your medication.

Your ethnicity and wealth affects your risk of developing heart disease. Team BHF continues to spread its resources and frontline work far and wide to make sure we find and talk to the people that need us most.

We’re working harder than ever in black and minority ethnic (BME) communities because some are at much greater risk of heart disease and more likely to face the dangers of diabetes, stroke and high blood pressure.

Our 200 BME-trained community health promoters have meant we can visit neighbourhoods and focal points in the community, answering questions and giving out our resources face-to-face. Meanwhile, our £11 million Hearty Lives programme takes the fight for every heartbeat to areas of deprivation.

Since the programme began in 2009 it’s helped more than 60,000 people live a heart-healthier life. This year we launched a £100,000 Hearty Lives project in Adur, West Sussex, where residents in the most deprived areas die nearly seven years younger than those in the least deprived areas. Here our challenge is to prevent heart disease in the next generation by teaching children about healthy foods and exercise, and the dangers of smoking. We’ll be talking to 4 – 6-year-olds, 12 – 14-year-olds and children in care, as well as parents, families and teachers.
Each of the projects could potentially save the NHS more than £50,000.

In an interim report all the patients told us they preferred to stay at home for treatment. And each of the projects could potentially save the NHS more than £50,000 a year. We will review the pilot at the end of 2013. If early indications are right, we’ll be encouraging the NHS to take on the programme and improve quality of life for thousands of heart failure patients, UK-wide.

Specialist nurses in ten UK areas have joined Team BHF to help people with severe heart failure avoid hospital stays.

In a pilot project, the nurses have been trained to give intravenous diuretics at patients’ homes. The treatment relieves excessive fluid retention in the body – a common symptom of the disease.

Norah Taggart, 83, took part in the scheme. “It was just so much more comfortable”, she said. “I used to feel guilty about my husband visiting me each day in hospital. He’s 84, he’s had his hips done, so it’s not easy to get around, and trying to park at the hospital is a nightmare. I feel much better knowing he doesn’t have to cope with all that.”

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We fund hundreds of Healthcare Professionals across the UK.
The difference between our income and charitable expenditure helps us generate more funds for our life-saving work and keeps the charity running smoothly and efficiently.
### BHF AT A GLANCE

#### DONATE TODAY AT BHF.ORG.UK/TEAMBHF AND HELP US CONTINUE OUR LIFE-SAVING WORK

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<thead>
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<th>Category</th>
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<td>General Medical Research</td>
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