REPLACEMENT NEWS

Winter - Issue 140

Inside the pulse:

Special newsletter edition on groundbreaking heart research

ANIMAL FREE RESEARCH UK

Inside:

2023 in review

Celebrating women in science

Revolutionising heart research

Policy News

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This February we need your help to heal the broken hearts of humans and animals alike

I'd like you to meet my dog Herbie. Herbie is a hugely important part of my family - loyal, compassionate (and very food oriented)! But his start in life was extremely different from what it is now. Like thousands of others, Herbie was bred for research. He was one of the very few fortunate ones – 'surplus to requirements' and given his freedom. Others are not so lucky. It is by funding projects like the Mini-Hearts Project by Professor Denning that we can demonstrate animal-free research is the solution to curing human diseases – and finally end animal suffering in laboratories and give all animals the freedom they deserve like my Herbie.

You may remember reading about our Mini-Hearts Project over the last couple of years which is helping combat cardiac fibrosis – a prevailing cause of heart failure in the UK. This project is in its final year, and the success of this model is paving the way for more accurate and ethical research, eliminating the reliance on animals in heart research. You can read more on this pioneering project on page 10.

You can also find out more about Dr Kate Nguyen Vo, who is part of the pioneering team at the University of Nottingham, as she shares her passion for compassionate science on page 12.

It is thanks to you that these trailblazing scientists are working hard on the frontline of modern medical research to not only advance human health but crucially show just how outdated the use of animals truly is.

This life saving heart research project is not the only thing you'll read about in this issue of Replacement News. Our Public Affairs team have been making waves in 2024 already. From George Eustice MP seeing first-hand the ground-breaking work happening at our laboratories, to Peter Dowd MP championing human-specific research in the House of Commons. This work is strengthening our voice as we call for government support in the acceleration of a future where medical research breakthroughs are made using new technologies – not animals. Read more about this on page 16.

All our work is as ever over possible thanks to your unswerving support and generosity. So on behalf of the scientists you help fund and all the animals you are fighting for, I offer heartfelt thanks. With you by our side, the months ahead are full of promise, hope and success.

With grateful thanks,

Carla Owen, *Chief Executive*

Latest News

Animal Free Research UK shortlisted for Lush Prize award

We're honoured to be shortlisted for the 2024 Lush Prize Lobbying Award for reshaping the future and building policymakers' support for modernising medical research.

As a leader in promoting alternative methods, we stand at the forefront of dismantling reliance on animal testing, driving the development of humane and effective research methods. Being shortlisted for the Lush Prize Lobbying Award underpins our advocacy efforts demonstrating the critical role they play in influencing policy, fostering awareness, and championing a paradigm shift towards animal-free research. This accolade not only celebrates past accomplishments but also highlights our ongoing dedication to reshaping the landscape of medical research, promoting ethical practices, and ensuring a compassionate future for scientific advancements.

The next generation of animal-free researchers

A recent early career researcher event at Edge Hill University, hosted by our grant holder Dr Adjanie Patabendige, provided an opportunity for early career researchers to present their research on the blood-brain barrier (a cell layer that prevents harmful substances from entering the brain).

A large number of animals are used in blood-brain barrier research and Animal Free Research UK sponsored a prize for the best talk or poster on using New Approach Methodologies (NAMs) to replace animals in this area of research.

The award winner was PhD student Sarah Boardman at the University of Liverpool for her research in developing a human-specific blood-brain barrier model to investigate direct and indirect effects of viral infections on the brain and prevention via immune suppression.

Congratulations Sarah!

Leading scientists call on Government support for human-specific technologies

Leading scientists, spanning academia and industry, have penned an open letter to Chancellor of the Exchequer, Jeremy Hunt MP, urging support in the Spring Budget 2024 for the thriving UK human-specific technologies sector. These cutting-edge innovations, including AI, organ-on-a-chip, and advanced use of human cells, hold the key to transforming public health and positioning Britain as a scientific superpower. The urgent call includes recommendations for tax reliefs, bold funding initiatives, and transition grants to accelerate the shift away from animal use.

Embracing human-specific animal-free technologies isn't just crucial for faster medical breakthroughs but also for economic growth, with the sector projected to contribute £2.5 billion to the UK GDP by 2026. Let's prioritise groundbreaking research and propel the UK into a global leadership role!

Scan the QR code to visit our website and read the open letter >>>

SCAN ME

Tune in for a blend of inspiration and education that will leave you informed and uplifted!

In case you missed it, we launched a special episode of our podcast, the Animal Free Labcast, featuring a captivating montage of insights and wisdom from some of our incredible guests.

Listen to Dame Joanna Lumley on how strongly she feels that all living creatures have a right to life without pain, Harvard University's Dr Don Ingber sharing his personal motivations for making that leap into human-relevant research, and Martyn Day MP's insights into the political landscape and his optimism about cross-party support.

All episodes from series 1 and 2 are also available, so scan the QR code to listen to them now >>>

SCAN ME

2023 in review

As we bid farewell to another year, we find ourselves reflecting on the incredible milestones we've achieved together in our collective pursuit of a more compassionate world.

In 2023, thanks to your generosity and commitment, we made significant strides toward creating a future where animals are no longer subjected to suffering for the advancement of medical science. Through awareness campaigns, advocacy efforts, or groundbreaking research initiatives, your support has been the driving force behind our accomplishments.

Here are just a few highlights from the past year that we want to celebrate with you:

Funding Pioneering Research

Thanks to your support, we continued to fund pioneering animal-free research making headway to a humane research future. Projects included predicting the spread of breast cancer using 3D human tissue models, and developing cutting-edge human stem cell models to understand heart disease. Over our 54-year history, thanks to supporters like you, Animal Free Research UK has awarded over £11.5m to 300 pioneering projects. Thank you!

Our Modernising Medical Research Science Conference

From captivating keynote speakers to thought-provoking panel discussions, researchers showcased their innovative new approaches and human models for diseases that will serve us all better.

Each presentation, discussion, and interaction has left an indelible mark. The Animal Free Research UK Conference was a true celebration of scientific exploration and collaboration. An excellent moment in our journey to an animal-free research future!

Parliamentary Debate

Supportive MP, Steve McCabe, led a debate in Parliament on human-specific medical research techniques where he championed their benefits for public health, the NHS, and the UK economy.

It was encouraging to hear cross-party support for human-specific research in order to achieve medical breakthroughs and end animal suffering in laboratories.

World Animal Free Research Day

On May 27th we once again celebrated our flagship World Animal Free Research Day. A host of exciting events took place including the Great West Run and our fabulous group in Bude took over their town to showcase the importance of animal-free research and rallying support from the local community.

Labour and Conservative Party Conferences

At the Labour Conference, popular singer and songwriter, Will Young, chaired a panel on non-animal research featuring Dr Jarrod Bailey, founder of animal free testing lab XCellR8, Carol Treasure, Animal Aid and LUSH. The panel discussed the significance of NAMs in biomedical research and how the UK can pioneer efforts to phase out animal research.

Parliamentary Reception

Thanks to host Ruth Jones MP, we held our Parliamentary Reception in Westminster. MPs Giles Watling, Alex Sobel and Ruth Jones all delivered rousing speeches in support of innovation that is ethical and animal free, asserting that human-specific technologies are a win-win for the economy, our NHS, patients and animals in laboratories.

We were also joined by our wonderful patron, Carol Royle, and vegan influencer Lucy Watson.

Ending suffering for good: An unwavering call to revolutionise heart research

Imagine a symphony playing within you, each beat, each rhythm harmonising to keep you alive. Now, imagine that symphony faltering, the melody disrupted by a silent foe – cardiovascular diseases (CVDs). These ailments, affecting the heart and blood vessels, form a formidable challenge globally, shaking the very foundations of our health and well-being.

In the UK, CVDs stand as silent giants, claiming nearly a quarter of all lives. Globally, the impact of CVDs is colossal, a tidal wave engulfing millions each year. It's not just a health crisis; it's an economic burden, draining resources and productivity. It's a relentless storm, and the need to combat it is dire.

Decades of animal research have not given the answers we need. Even when 57-year-old American David Bennett received a genetically modified pig's heart back in 2022, many believed the world-first transplant procedure threw a lifeline to the millions suffering or likely to suffer serious heart disease.

There was much optimism and excitement within the medical science community, but that excitement was premature because with great sadness, Mr Bennet died just two months after the operation.

But Mr Bennett's passing has not been in vain. It has strengthened the case for ending once and for all the use of animals in medical research.

Enter the heroes of our tale – the researchers, the scientists, the seekers of hope. Their quest is not just to understand but to unravel the mysteries of these diseases without harm to animals.

The critical need for research in cardiovasular diseases arises from their significant impact on public health, the complexity of these conditions, and the limitations of current treatments.

Some common cardiovasular diseases are:

Atrial fibrillation: This irregular heartbeat is a common foe, and our heroes seek treatments to prevent the looming threats of stroke and heart failure.

Coronary thrombosis: The quest here is to understand blood clots in coronary arteries, unveiling ways to predict, prevent, and treat the potentially fatal heart attacks.

Cardiac fibrosis: A silent thief, it steals the heart's vitality. Researchers strive to understand its secrets, aiming to develop therapies that can stop or reverse its course.

Coronary heart disease: This global nemesis needs to be understood better. The mission is to uncover its progression, enhance early detection, and craft treatments that can manage symptoms and avert heart attacks.

Aortic diseases: Researchers face the challenge of detecting and treating these silent assassins of the aorta, striving to improve screening, diagnosis, and interventions.

Stroke: Researchers are on a mission to rewrite the narrative of strokes. With a focus on prevention, acute care, and rehabilitation, they aim to reduce the burden of these life-altering events.

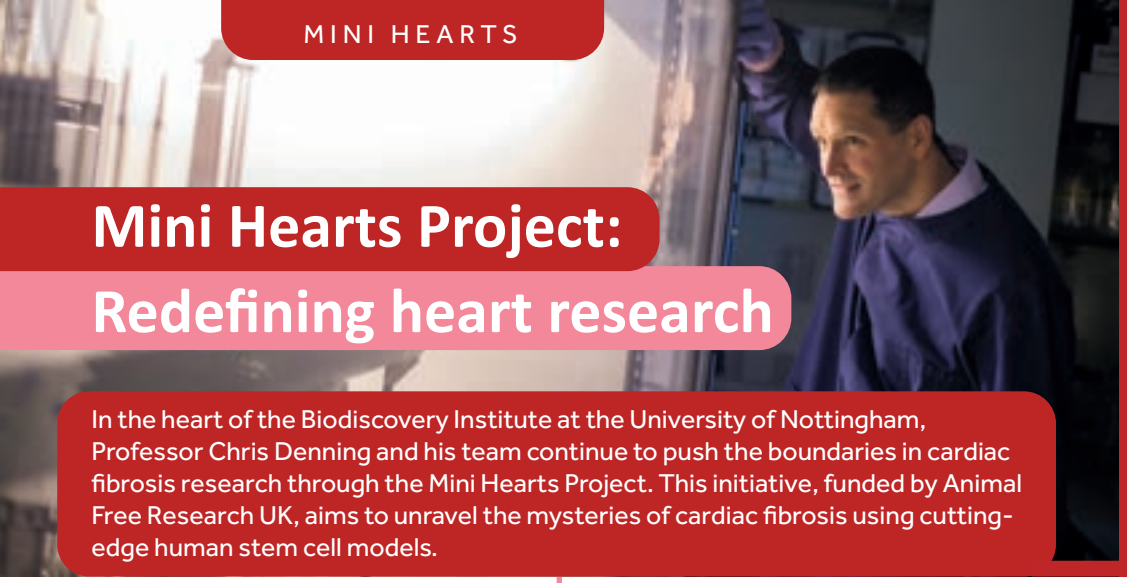
In all these areas, there's a pressing need for research to develop better diagnostic tools, more effective treatments, and preventive strategies. This includes understanding the genetic, lifestyle, and environmental factors that contribute to these conditions, exploring new therapeutic targets, and improving clinical care and patient outcomes.

Moreover, there's a growing understanding that the ethically charged path of animal-based research is not the way forward. Our heroes are pioneers in the realm of alternative research methods – humane, accurate, and dedicated to the well-being of both humans and our animal counterparts.

At Animal Free Research UK we are funding research that promises that the rhythm of our hearts can be preserved. The Mini-Hearts Project undertaken at the University of Nottingham, represents a significant stride in the fight against heart failure, specifically addressing cardiac fibrosis. While Professor Nicola Mutch at the University of Aberdeen is developing a human-relevant model to reveal insights into blood clot formation and breakdown and what goes wrong in conditions such as coronary heart disease.

And in 2024 we will be awarding innovative pilot and transition grants to accelerate the development and wider adoption of animal-free technologies for coronary heart disease, so watch this space for news on these exciting new projects.

Let's stand united, hearts beating as one, and support the tireless heroes in their mission to unlock the secrets of our hearts and rewrite the destiny of cardiovascular health.



Mini Hearts Project:

Redefining heart research

In the heart of the Biodiscovery Institute at the University of Nottingham, Professor Chris Denning and his team continue to push the boundaries in cardiac fibrosis research through the Mini Hearts Project. This initiative, funded by Animal Free Research UK, aims to unravel the mysteries of cardiac fibrosis using cutting-edge human stem cell models.

Heart failure affects 900,000 people in the UK, with cardiac fibrosis being the leading cause.

It is estimated that by 2030, over 1.1 million animals will have been used for cardiac fibrosis research.

Despite huge scientific investment in animal-based research, there still is no effective treatment for the condition.

But at the University of Nottingham, your support is paving the way for change. Together, we are replacing outdated methods with cutting-edge technologies. The Mini Hearts Project looks to deepen our understanding of cardiac fibrosis by using human stem cell models to support drug discovery, which could one day lead to ways to treat and help protect patients.

Please support our Mini-Hearts Project today.

Your donation fuels cutting-edge, humane science

SCAN ME

And we have some exciting progress to share with you:

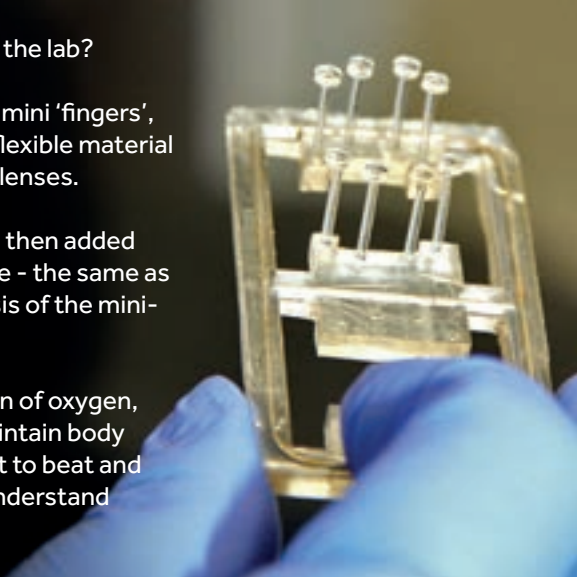
- Engineering 3D mini hearts: The team has successfully engineered 3D mini hearts incorporating three key heart cell types. Demonstrating enhanced functionality with all cells together, this approach provides a more comprehensive tool to help understand cardiac fibrosis.
- Serum innovation: Most ways for growing and maintaining cells called cardiac fibroblasts currently involve using animal-derived serum (obtained from the blood of calf foetuses) to help the cells grow. However, the team have succesfully grown cells using an ethically sourced animal-free serum.

Want to know how a mini-heart is created in the lab?

Step 1: Into a cell culture well, insert a set of mini 'fingers', shown in the photo. These are made out of flexible material or 'polymer' similar to that used for contact lenses.

Step 2: Heart cells made from stem cells are then added and go into an oven at 37 degrees centigrade - the same as normal body temperature - creating the basis of the mini-heart.

Step 3: Over the next 2 weeks, a combination of oxygen, carbon dioxide, nutrients and warmth to maintain body temperature mean that the mini hearts start to beat and are then ready to be used to research and understand human heart disease.



- Clinical relevance: With the ability to integrate all key heart cell types into the model, the team can now evaluate the impact of drugs on the heart cells to test response rates - almost like a mini clinical trial in a dish. This approach offers a more realistic representation of human disease and means we can test drugs without needing to do tests in animals or human patients.
- Toxicology focus: The drug development system is ineffective as it relies on animal research that fails to predict human reactions to new drugs. Recognising the heart as a top toxicology challenge, this project plays a crucial role in identifying potential issues early in drug development.
- Economic impact: Drug development is a costly endeavour especially when 92% of drugs that look promising in animal trials, fail in human trials. Even a 1% improvement in identifying failures or problems earlier could translate into substantial cost savings. The mini-hearts model will be revolutionary in safer, cost-effective drug development without animal suffering.

By removing all animal products from the pipeline, our research heroes are showing that they can produce results with human-relevant models, providing a roadmap for other scientists.

As we step into the final year of this project, the potential for future developments is immense. The pioneering work of Chris and his team will better serve the future of heart research, potentially impacting the lives of hundreds of thousands of humans and animals.

"Through Animal Free Research UK and their committed supporters, we are delighted with the progress we have made so far in the Mini Hearts project. Once again, thank you for enabling us to carry out this important research."

Dr Kate Nguyen Vo & Prof Chris Denning

Heartfelt Insights: Dr Kate Nguyen Vo's journey in animal-free research

Embark on the fascinating journey of Dr Kate Nguyen Vo, a trailblazer in cardiovascular research and stem cell technology at the University of Nottingham. Kate shares her experiences as a woman in STEM, reflects on her cultural challenges, and advocates for diversity and inclusion in the scientific community.

Tell us about your career to date

My career has been dedicated to cutting-edge research in cardiovascular disease and stem cell technology at the University of Nottingham. I am now working on a project funded by Animal Free Research UK where we are crafting a cardiac fibrosis model from human stem cells, a unique approach that lets us explore heart disease without using animals. My work not only pushes the boundaries of research but also showcases animal-free approaches in labs. I am fortunate to align my efforts with a commitment to improving both human health and animal well-being, making it a fulfilling journey.

What is your experience as a woman within science, technology, engineering, and mathematics (STEM) subjects?

Throughout history, women have pioneered research within STEM subjects. Though at times these contributions have been overlooked and undervalued or even forgotten. I am incredibly proud to be a one of many women in STEM research today.

The human body has always fascinated me. I experienced the medical health care environment from an early age volunteering at my father's practice. Seeing first-hand the patients that were coming in with debilitating conditions inspired me to pursue a career in research.

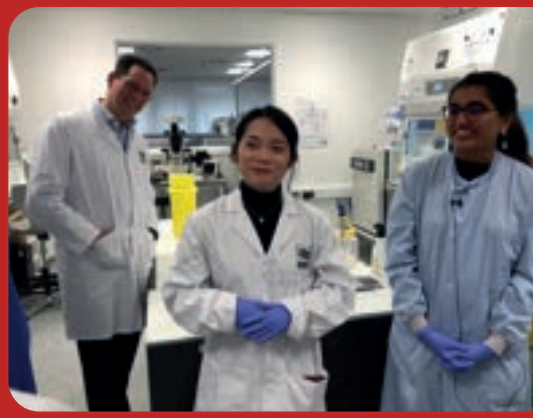
When I was given the opportunity to do my PhD in stem cell technology, it was a turning point for me. Initially, I faced cultural challenges studying in the UK having moved here from Vietnam, and I have worked hard to change preconceptions of women from my culture and gain the self-confidence to become an ambassador for women in STEM from minority backgrounds.

During my career, I am delighted to see the progress in Equality, Diversity and Inclusion for female peers and mentors in STEM subjects. Looking forward to the future, I am keen to improve the work environment for all women. I have joined the University-wide Project Period campaign where free period products are being made available across all campuses, and workshops are being set up to normalise the conversation around menstruation and menopause.

It is very reassuring to see the great efforts being made to ensure women can be supported in STEM subjects. From my experience, it is clear to me that having support from male colleagues has been a critical step forward for improving research culture for women. I look forward to seeing these positive changes continue.

Any advice for an early career scientist?

Certainly! I am still in the early stages of my career, and I have realised how vital it is to stay connected in my field. Attending conferences and workshops hasn't just kept me updated; it has opened up opportunities to collaborate with others and gain insights from diverse perspectives through professional networking. I appreciate the crucial support from my supervisor, especially in the early stages of my career. I've found it offers the right guidance, valuable advice, and inspiration from their research journey. Engaging in public outreach has enhanced my communication skills as an international researcher. This has also been a rewarding aspect of my job. Sharing research not only breaks down barriers but also opens doors to collaborations and funding, making the research journey exciting and rewarding.



Do you have any pets?

Unfortunately, my mother and I have allergies to animal hair, which has kept us from having pets. While we'd love to enjoy the companionship of a furry friend, for now, we appreciate and admire pets from a distance.

I've always had a soft spot for cats as they are incredibly adorable, and I hope that I can welcome a furry friend into my life someday if I get better with my allergies.

Breaking new ground: The path to safer and more effective clot therapies

Professor Nicola Mutch at the University of Aberdeen is developing a human-relevant model to reveal insights into blood clot formation and breakdown and what goes wrong in conditions such as coronary heart disease.

Blood clot - friend or foe?

Our blood needs to quickly form clots to prevent blood loss when we are injured. Clots are formed when chemical triggers, sparked by blood vessel injury, cause tiny cell fragments in the blood, called platelets, to clump together. Through a series of chemical chain reactions, a clot made from platelets and proteins is formed to block the leak.

Clotting is a tightly controlled process. Chemical signals set a limit and eventually cause the clot to breakdown as damaged blood vessels heal. Sometimes however, this process goes awry and blood clots form when they aren't needed or they don't break down, blocking blood vessels instead. If blood vessels that supply the heart are blocked by clots, it can lead to a heart attack.

Every five minutes someone is admitted to hospital in the UK as a result of a heart attack. This represents a significant healthcare and financial burden. Current clot busting therapies carry the risk of bleeding and are not recommended for certain people, for example if they have previously had a stroke.

Understanding how and why these blood clots form is vital so that we can develop better therapies that break down the clot whilst minimising the risk of bleeding.

Animals used in blot clot research

Animals have traditionally been used to study blood clot formation. They are either put under general anaesthesia and clots induced by damaging blood vessels or are injected with chemicals to induce clots, which leads to considerable pain and suffering. Large numbers of animals (over 2000 mice each year in the UK alone) are used for each experiment so that the results can be considered reliable. However, reliance on animals means that crucial information about how blood clots form in people is being misinterpreted or even missed. Mice for example, have different proteins and chemicals that control the formation and breakdown of clots.

A more human-relevant way of studying this process is urgently needed to save more lives.

Developing a new model to study blood clots

Professor Nicola Mutch, at the University of Aberdeen, has developed a human-relevant, animal-free model that mimics blood vessels and enables the study of blood clot formation. The model uses a transparent, flexible chip with tiny channels through which human blood can flow. This model can simulate the way blood flows within different blood vessels. The rate of blood flow can be altered – this is a factor which has been shown to directly impact the formation and stability of blood clots.

To improve the model so that it better reflects blood vessels, Nicola is now incorporating vascular endothelial cells (VECs) which are found on the inner lining of heart blood vessels. These cells supply a number of factors that influence the clotting process, so their inclusion in the model will help assess their influence on clot breakdown. Nicola is using VECs from healthy individuals and those with coronary heart disease (where blood vessels supplying the heart are narrowed or blocked) to find out what goes awry with the clotting process during coronary heart disease.

Blot clots visualised using a microscope – fluorescent stains highlight different chemical and proteins that are involved in the clotting process

Impact of the research: Benefits for humans and animals

This model could enable researchers to better understand mechanisms underpinning human stroke and to develop improved clot busting treatments for coronary heart disease more quickly and cost effectively. This animal-free model could also be adapted to include cells from different blood vessels, such as veins and arteries, which, due to structural differences from heart vessels, may respond differently to clot busting therapies. This would give the model great potential for the development and testing of a range of anti-clotting drugs for various conditions.

This research could have a significant impact in saving people's lives by uncovering more effective treatments, by using better tools and by ending animal suffering.

Polictical News

Peter Dowd MP raises human-specific technologies in House of Commons

Peter Dowd MP

In December, MP for Bootle Peter Dowd entered and was selected in the ballot to ask an oral question to the Department for Science, Innovation and Technology on our behalf. Peter kindly agreed to choose human-specific technologies as his topic, raising this important issue in a packed House of Commons, just ahead of Prime Minister's Questions.

This is the first time we have had a question asked on our behalf in the House of Commons, surpassing a milestone that we can be truly proud of, and signalling a strong start to the year.

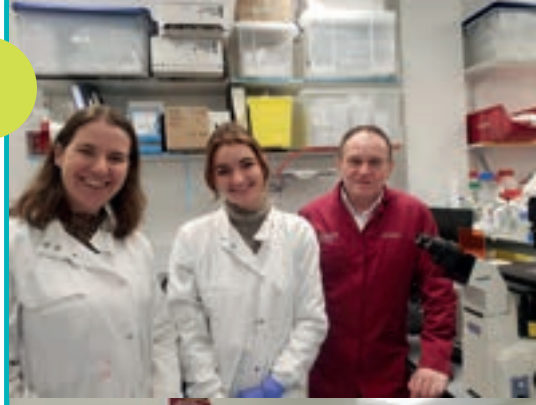
Question from Peter Dowd MP:
"In advance of the budget, what discussions has the Minister had with the Treasury regarding crucial funding for the development and uptake of human-specific technologies as opposed to the use of 3 million animals for experimentation and research in the UK?"

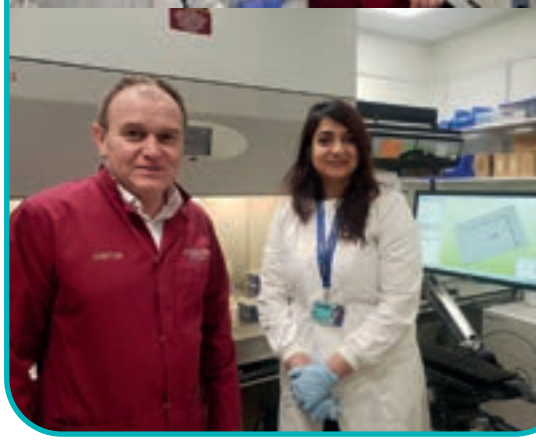
Response from Minister Andrew Griffith: "The day cannot come quickly enough that we are able to end the practice of animal testing. That day is not now, but this Government is committed to doing everything that it can to bring forward and support the development of replacement technologies and he has my commitment that we will do that at the right pace."

Clacton MP Giles Watling was also successful in the ballot after entering on our behalf, but unfortunately time ran out before he could ask his question. Nevertheless, we were incredibly grateful for Giles's readiness to advocate for animal-free science in parliament and are looking forward to continuing to work with him this year.

Minister Andrew Griffith

We take Rt Hon George Eustice to visit our animal-free laboratory



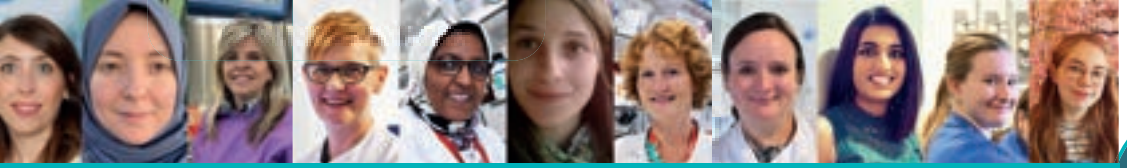


In January the Rt Hon George Eustice, MP for Camborne, Redruth and Hayle, and former Environment Secretary, visited our Animal Replacement Centre of Excellence (ARC 1.0) at Queen Mary University of London to learn more about its cutting-edge medical research. George met with Professor John Connelly, Dr Rosalind Hannen and Dr Adrian Biddle to discuss how the UK can harness the potential of human-specific, animal-free research. The scientists showed George how they print 3D organ-chips to model disease, as well as computer modelling designed to predict the spread of cancer in humans, and a human skin model produced by Rosalind's biotechnology company Keratify.

We were delighted to be able to show George the potential of animal-free medical research first-hand, and to discuss the many opportunities it offers. Raising awareness of these methodologies in parliament is essential to our campaign work, strengthening our voice as we call for government support in the acceleration of their uptake.

AGM of the All-Party Parliamentary Group on Human Relevant Science

In early December, the All-Party Parliamentary Group on Human Relevant Science met for its Annual General Meeting to formally begin its new term. At the meeting, Martyn Day was re-elected as Chair, and Baroness Hayman of Ullock, Alex Sobel MP and Anna Firth MP were elected as Officers. New rules on APPGs coming into force in March require the group to have 20 members, so the Public Affairs team will be working hard to secure that number over the next couple of months, together with our colleagues at the Alliance for Human Relevant Science. We are so grateful to those MPs and Peers who continue to support our work via this important group.



Celebrating women & girls in science

Did you know that women are typically given smaller research grants than their male colleagues? And that female researchers' work is underrepresented in high-profile journals, and they are often passed over for promotion?

A significant gender gap has persisted throughout the years at all levels of science, technology, engineering and mathematics (STEM) disciplines all over the world.

Yet women have led ground-breaking research into public health, vaccines, treatments and innovative technology. History is full of women who made tremendous contributions to science.

The world needs science, and science needs women and girls. So, join us this International Day for Women & Girls in Science this February, and everyday, in celebrating those who are leading innovation and inspiration in the scientific world.

Professor Lorna Harries
ARC 2.0

"I am proud to be a woman in science. As long as I can remember I have been fascinated by how biological systems work, what can go wrong with them in disease, and what we can do about it. Although there have been improvements over the past decade, career progression in the scientific arena is still more challenging for women.

I have been lucky in my career to have been surrounded by excellent female role models and supportive people who were invested in my development. Because of this, I have never considered that anything is out of my reach because of my gender.

It's a wide world out there, and there is so much work left to do! We need everyone who is curious and motivated to help us find the answers, regardless of who they are or where they come from."

Dr Lorna Ewart,
Emulate Inc

Lorna is Chief Scientific Officer at Emulate Inc, the leading provider of next-generation organ-on-a-chip models, where she provides strategic guidance and oversight of the scientific vision, partners with government agencies to achieve regulatory acceptance and collaborates with key customers to advance adoption of this technology.

"Just one year ago, almost to the day, I stepped into my new role of Chief Scientific Officer of Emulate. Over 20 years of therapeutic development prepared me for this position, but this new opportunity came with its own set of surprises. One of them was just how many messages were sent my way, particularly from young women in STEM, who said how much they viewed me as an inspiration for their own careers.

I had my own female role models in science growing up of course, but to now be in a position where I can mentor and empower the next generation of female leaders is an honor and responsibility my younger self never would have expected."

Dr Stephanie Modi
Science Manager, Animal Free Research UK

"A diverse research community with a variety of skills and perspectives is essential to advancing scientific endeavour.

Women and men are roughly equally represented within the research community at early career stages, but women are under-represented at professorial levels in all STEM disciplines (typically 17%).

When I worked as a researcher, I was the only female in the team, sometimes didn't get the respect and guidance I needed and so didn't have a clear idea of what I could aspire to. Looking back, it would have been inspiring to see more women in senior positions as role models and to have mentors to provide guidance and insights on their experiences.

I think empowering women to have high aspirations, confidence and self-belief begins at a young age. Many schools are working hard to instil this in students, as well as teaching children about inspiring women in science and in other careers. Having taught secondary science, I was privileged to have been a teacher and mentor myself, helping to inspire the next generation of women in science."

FABULOUS FUNDRAISERS

Dave's 215 mile walk for his Dad

"In December 2023, my Dad was diagnosed with cancer in his esophagus and liver. To say this was difficult news for the whole family is obviously a huge understatement. My Dad has always been my hero and remains the best man I know.

We're all now doing two things - searching for ways to help, while trying our best to continue with our normal lives. I've decided to combine the two.

Having walked the London Loop - a 150-mile walk around the border of outer London - in 2023, my goal for 2024 is to walk the length of the river Thames. From its source in the Cotswolds to its mouth between Essex and Kent where it joins the sea, the river is 215 miles long. I'll use the walk to raise funds for Animal Free Research UK.

Your support will make a huge difference to both - funding research into treatment and, one day, a cure for cancer, as well as showing my Dad just how much he is loved by everyone."

Jay's 5km a day for a year

"Stating from the 1st November 2023 I will be running 5km a day, every day, for a whole year for Animal Free Research UK.

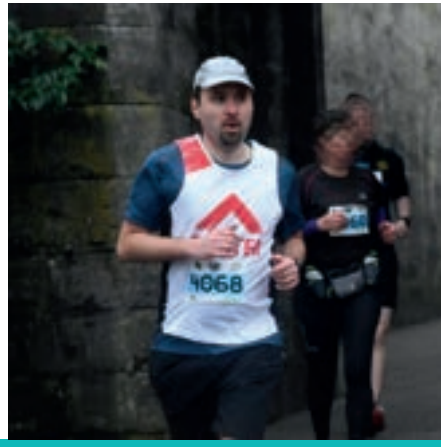
We have all been touched by various diseases such as cancer and dementia and once again I have decided to do my small bit. As an animal lover I cannot stand the thought of animals being used as test subjects in the search for cures for human diseases. Animal Free Research UK are driving ethical, evidence based research to fight, prevent and cure human diseases. And they are doing it by investing in the most innovative research which focuses on humans without the use of animals.

With your amazing support, they can advance human health and end the use of animals in medical research, forever."

Philip's run for a kinder science

"I'm taking on my first ever half marathon this St. Patrick's Day in Liverpool. I've been running for years, but make no mistake - this is a big challenge for me to move up to this distance, and I'd love your support to encourage me.

I'll be running this in aid of Animal Free Research UK. As a pro-science vegan diabetic, this is a cause that is very close to my heart."



CHALLENGE FOR CHANGE

Your challenge, your way

All you need to do is dream up a challenge to complete. Whether you decide to hula hoop for an hour a day, or you are already taking part in a challenge and want to fundraise for us – you choose your challenge. There are no rules - the main thing is to get active, have fun and fundraise. Scan the QR code to find out more >>>

SCAN ME

Other ways you can help

You're everyday shopping can make a real difference with easyfundraising

Sign up to Easy Fundraising and see your favourite brands donate to Animal Free Research UK whenever you shop with them.

Easy Fundraising turn your daily shopping into every day magic! They partner with over 7,000 brands who will donate part of what you spend and it won't cost you any extra.

And so far our amazing supporters have already raised nearly £8,500 for Animal Free Research UK!

Visit **www.easyfundraising.org.uk** to find out more and register!

Make your birthday even more meaningful and set up a Facebook birthday fundraiser asking friends to donate as an alternative gift.

giftaid it

Add GiftAid to make your donations go even further! If you are a UK taxpayer, we will receive an extra 25p for every £1 donated!

Welcome to the Animal Free Research UK shop!

shop.animalfreeresearchuk.org

SCAN ME

Join our team

26 May 2024

great manchester run

SCAN ME

The Great Manchester Run is the city's original and best-loved running event. And in true Mancunian style, it's a party from start to finish, with a high-energy soundtrack, live music and entertainment zones at every turn – plus some of the loudest and most enthusiastic local support we've seen anywhere in the UK. Go Manchester!

We have places on the 10km and Half Marathon available.

1 September 2024

The big Half

SCAN ME

Join the Animal Free Research UK and soak up the incredible atmosphere of this epic half marathon around London's iconic landmarks.

The event is set to become one of the UK's biggest running events, so don't miss out on your chance to be on the start line of The Big Half 2024!

All year - multiple events

ULTRA CHALLENGE WALK.JOG.RUN

SCAN ME

Walk, Jog or Run at YOUR pace on the Ultra Challenge series event of your choice. From the Isle of Wight to the Lake District - with 17 Ultra Challenges to choose from across the UK, there is a perfect one for you.

Join 30,000 others of all ages and experience in 2024 for an unforgettable Challenge. It will be rewarding, fun, and absolutely achievable with your resolve and determination alongside first class support.

A LASTING LEGACY

What will you leave behind?

What legacy would you like to leave to future generations?

During our lifetime we each support charitable causes that are close to our hearts - those with which we share our values and beliefs. We see cruelty or injustice - and we are compelled to connect with likeminded people who also want a more compassionate future to become a reality.

The same is true after life: leaving a gift in your will is simply a continuation of those same values and experiences held so dear during life.

Because of this, and wanting to provide for family or friends, your will is one of the most important legal documents you will ever sign – and one of the most heartfelt demonstrations of support that an individual can make to a charity.

> **"Thankfully, the wheels are now turning towards humane methods of research and I want to be a part of that change, even after my life has ended, so leaving a legacy to Animal Free Research UK is the best way for me to achieve that."**
>
> Rosemary, a committed proud supporter and legacy pledger.

After providing for your friends and family, we hope you'll consider including a gift in your will to Animal Free Research UK. Thank you.

For more information about Leaving a Legacy, please visit our website:
www.animalfreeresearchuk.org/leave-a-legacy

SCAN ME

Should you wish to discuss this further or have any queries relating to leaving a gift in your will, please contact **legacies@animalfreeresearchuk.org**