

TOGETHER WE ARE DRIVING BREAKTHROUGHS

Type 1 discovery

Issue 97/ July - September 2024

Breakthrough T1D

Find out all about our exciting new name and brand

David Mitchell

Tells us what it's like to represent the T1D community on a Grand Challenge funding panel

Travelling with type 1

Founder of the Diabetic Travelers' Network Julie Kiefer gives us her top tips

Needlephobia

Find out how one man overcame his fear of needles when diagnosed with type 1

MEET MANISHA

A teacher with a passion for raising awareness about type 1

Inspirational fundraisers!
Introducing the triplets
with type 1 who
conquered Ben Nevis

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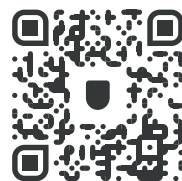
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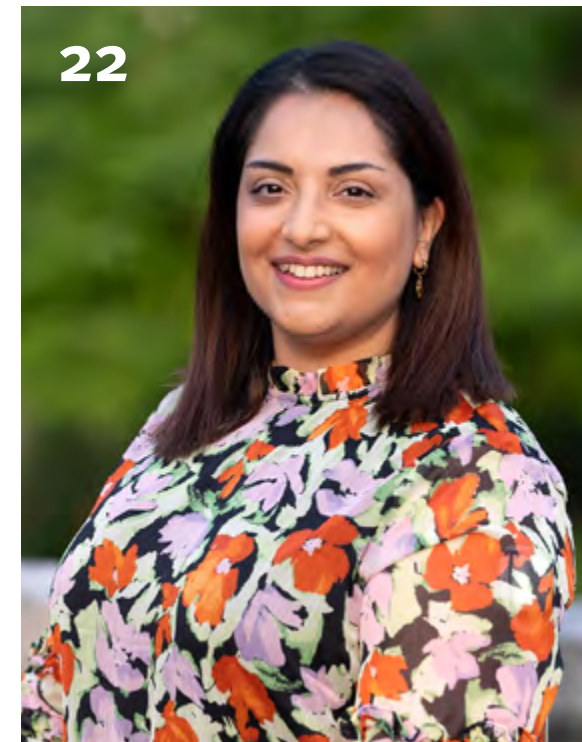
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A word from Karen

Welcome to Discovery Magazine



We have a packed summer issue with news of how we are, together with our supporters, advancing breakthroughs in prevention, treatments and cures for type 1 diabetes. We have a fascinating insight into our work to develop faster, more responsive insulins as part of the Type 1 Diabetes Grand Challenge. We're also featuring the inside story behind the news that we are changing our brand and name. I'm incredibly proud and excited by our new name Breakthrough T1D, as it means we can better represent our community.

Our mission to cure, treat and prevent type 1 diabetes is our north star and remains constant. Our new name Breakthrough T1D embodies our purpose; to spearhead breakthroughs in type 1 diabetes medical research, access to new treatments and support for people of all ages to live well with T1D.

We've taken our lead from people with T1D across the world in developing our new name and know that with Breakthrough T1D, we can do more, raise more awareness for the condition, more income for research and drive more breakthroughs and impact.

The summer issue of Discovery holds so much inspiration in our news stories, together with a range of wonderful interviews with people living with type 1 diabetes and information on how to get involved in our work. Thank you for making it possible. Together we are improving the lives of everyone living with type 1.

I hope you enjoy reading it, I know I always do.

Karen Addington
Chief Executive

Join us on
social media



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We would like to thank all the trusts and foundations that generously support our work, including:

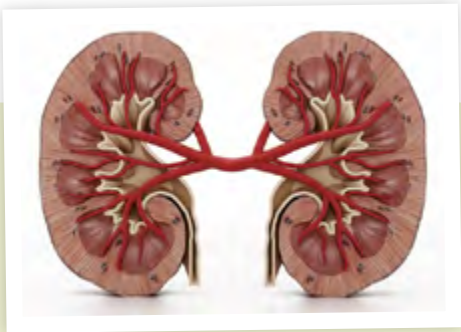
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To find out about all the projects we fund, visit jdrf.org.uk



Teaming up to tackle diabetic kidney disease

With diabetes the leading cause of kidney disease in the UK, we’ve joined forces with Diabetes UK and Kidney Research UK to identify the research gaps and care needs in the field

The partnership focuses on the need for translational research, transforming scientific discoveries into real life benefits quickly, with people with lived experience of these health conditions at its heart.

An initial workshop, made up of academics, clinicians, and people with lived experience, gathered earlier this year to hear about and discuss the experience of people with diabetes and kidney disease. These insights helped inform our strategy to transform the quality of life for people with type 1 and kidney disease by raising their voices, progressing research and improving care.

Read more about type 1 and kidney research on page 16.

NEW INTERNATIONAL MEDICAL CODE LAUNCHED FOR PRESYMPTOMATIC TYPE 1 DIABETES

JDRF-funded researchers from the University of Birmingham have joined forces with NHS England to develop a diagnostic code to add to the electronic medical records of people in the earliest stages of type 1 diabetes. The new code has been added to SNOMED CT, the most comprehensive and precise clinical health terminology system in the world.

Type 1 diabetes develops in three stages, with the first two stages called presymptomatic type 1 diabetes and the third being when symptoms of thirst, peeing more often, tiredness and weight loss happen. The code will enable better, more timely healthcare and access to emerging treatments for people at the earliest stages of type 1.



Type 1 Diabetes Grand Challenge in the community

DiabetesChat

On 13 May, the online peer support community platform DiabetesChat hosted their fifth research event, all about the Type 1 Diabetes Grand Challenge. Liam Eaglestone, CEO of the Steve Morgan Foundation (SMF), introduced the event, sharing how the Grand Challenge is taking an innovative approach to research and accelerating us towards cures for type 1. The three Senior Research Fellows then each presented their research and answered questions from the audience. Around 2,500 people tuned in, demonstrating the excitement that surrounds this pioneering partnership.



Talking About Diabetes (TAD)

Liam and his son Jack gave a talk at the annual Talking About Diabetes event about their experience of being diagnosed with type 1 within 12 months of each other. The pair then shared a video of Sally and Steve Morgan, founders of SMF, discussing the Grand Challenge and their personal connection to type 1 through Sally’s son Hugo.



New research to explore personalised treatments

JDRF Australia and JDRF International have announced we’re investing \$3 million Australian Dollars in five new research projects exploring personalised treatment for type 1. The researchers will delve into the genetics of type 1 to find out which emerging treatments, such as immunotherapies, work best for different people. This will help provide targeted treatment options for people with type 1. Dr Dorota Pawlak, JDRF Australia Chief Scientific Officer, said: “We want to move towards a future with medical care tailored to each person living with, or at risk of, type 1 diabetes.” JDRF is a global charity, meaning we fund research anywhere in the world and use the findings to help people with type 1, wherever you live.



Prof Colin Dayan

Professor Colin Dayan presented with the 2023 JDRF Rumbough Award

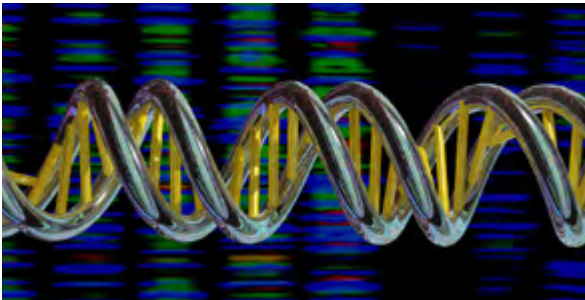
We were delighted to award Professor Colin Dayan our 2023 Rumbough Award for his outstanding contribution to type 1 diabetes research which has significantly accelerated our mission to cure, treat and prevent type 1. Professor Dayan has been a leader in type 1 immunotherapy research for over 20 years and played a crucial role in the JDRF-funded development of teplizumab, an immunotherapy that can delay the onset of type 1 by up to three years. Now, he is leading efforts to bring the drug to the UK and Europe, following its approval in the US in 2022.

He is a leading member of the JDRF-funded UK Type 1 Diabetes Research Consortium, bringing the research community together to accelerate critical research, leverage collective resources, and collaborate to improve the delivery of type 1 clinical trials.

Congratulations and thank you, Professor Dayan!

When we come together, we make change happen. Whether it’s volunteering our time, taking on a fundraising challenge, or making a donation, together we are improving the lives of everyone living with type 1

Genetically unique siblings reveal new treatment target for type 1 diabetes



New research from University of Exeter, co-funded by JDRF and published in the Journal of Experimental Medicine, has given researchers new insights that could help lead to innovative new treatments in type 1 diabetes

The research studied two siblings who were diagnosed with a rare genetic form of autoimmune diabetes in the first weeks of life. Autoimmunity is where the immune system attacks our body’s own cells – in this case, the insulin-making beta cells, which is also how type 1 develops.

The changes in the siblings’ genes (known as a genetic mutation) have not been found in anyone else and could help show how autoimmune forms of diabetes, like type 1, develop.

Study co-author Professor Timothy Tree, from King’s College London, said: “This finding... opens up a new potential target for treatments that could prevent diabetes in the future. Our findings will help accelerate the search for new and better drugs.”



For the latest type 1 news go to jdrf.org.uk/news



Triplets conquer Ben Nevis and raise more than £2,000 for JDRF

Inspirational triplets with type 1 diabetes have raised more than £2,000 for JDRF after climbing the UK's highest mountain

Hattie, Thomas and Freddie Soar took 10 hours to conquer Ben Nevis in Scotland, which stands more than 4,400ft above sea level.

The 12-year-olds, who were born prematurely weighing just 8lbs 6oz all together, gave up their school holidays to complete the trek alongside parents Tracy and Martyn Soar.

Freddie was the first of the siblings to be diagnosed with diabetes during lockdown in 2021 followed by Hattie in 2022. Thomas, who also has hemiparesis, a form of cerebral palsy, was the last to show symptoms shortly afterwards.

Tracy, a primary school teacher from Dronfield, Derbyshire, says: "As parents, it's the kind of news you dread. We didn't know much about type 1 diabetes but

enough to know it was a serious condition that they would have to manage for the rest of their lives.

"It was a lot for them to process, but they have dealt with it far better than we could have hoped for. They have helped and supported each other and never once asked 'why us?'"

The triplets have been supported by JDRF from day one and say they wanted to give something back, as well as showing that having type 1 doesn't have to hold them back. They have also experienced first-hand the difference that research can make, with advancements in technology even in the last few years making the condition much easier to manage.

Martyn, a shop manager, adds: "When they were first diagnosed, they had to have at least six injections of insulin daily and were constantly having to do finger-prick



It was the toughest thing I've ever done, but I was determined to do it for JDRF and all the people who supported us. I'm really proud of us all'



tests to check their glucose levels. They now have a sensor attached to their arm that monitors glucose and an electronic insulin pump, which only has to be changed every few days.

"They started secondary school last year and have had to be much more accountable for managing their meds, so the difference has been life-changing."

The trio have been training for their climb since Christmas, walking in the countryside close to their home, but say nothing could have prepared them for Ben Nevis.

Hattie says: "The hardest part was when we got close to the summit. There was snow on the top as well as heavy rain, and it was so cold that we couldn't even stop for long!"

Freddie says: "It was tiring but we knew we had to keep going. We took our time and helped each other, and we got lots of encouragement from other walkers on the way up."

Thomas adds: "It was the toughest thing I've ever done, but I was determined to do it for JDRF and all the people who supported us. I'm really proud of us all."

Words by **Sue Carr**

Your commitment is the heartbeat of our mission

Hattie, Thomas and Freddie's story is so inspiring, and we couldn't be more thankful for their support. The money they've raised will help fund vital type 1 research and, who knows, their story may inspire one or two of you to take on your own fundraising challenge!

The vital research and services we fund are only possible because of the efforts of all of our supporters, and the wider type 1 community. We're so grateful to have such passionate, driven, and dedicated supporters.

In the last few months alone, incredible members of our community have raised money towards our work in so many special ways, ranging from; bake sales, sponsored hikes, taking part in our One Walks, bike rides (including a 1,000-mile cycle challenge!), running in the iconic London Marathon and, we even have a supporter who took on an incredible 230km Jungle Ultra Marathon in the Amazon rainforest!

We are forever committed to making life with type 1 the best it can possibly be, until we develop cures, but it is truly only with your support that our work is possible. So, thank you!

If you've now been inspired to take on your own fundraising challenge, you can find out more about our upcoming events by visiting jdrf.org.uk/fundraising-events or scanning the QR code. And, if you have plans for your own challenge idea and would like some help, you can contact our team at supportercare@jdrf.org.uk - we'll be delighted to help.



For more information about your own fundraising challenge visit jdrf.org.uk/fundraising-events

We are becoming Breakthrough T1D!

We are thrilled with our new name, Breakthrough T1D and to be moving towards this new brand which truly embodies what we do. JDRF International in the US led this insight-driven change and was the first to completely transition to Breakthrough T1D on 4 June. We can't wait to change over in October and fully embrace what this new brand brings. Until that point, we remain JDRF



JDRF was founded upon a culture of innovation, progress, ambition, and collaboration. 50 years on from the founding of JDRF in the US, Breakthrough T1D will build on that proud set of values and continue to break research boundaries in accelerating the cures, treatment and prevention for type 1 diabetes

Karen Addington, JDRF UK CEO



Since the global organisation launched over 50 years ago, and 37 years ago in the UK, JDRF has been at the forefront of every major type 1 research breakthrough, bringing life-changing treatments and technologies to the people who need them the most. As Breakthrough T1D, we hope to continue to accelerate breakthroughs and reach more people so we can support more people living with T1D and gain more funding for our vital work.



We've spoken with Orna Joseph, Deputy Director of Brand & Digital to find out more about the new brand

Why Breakthrough T1D?

The name Breakthrough T1D reflects our dedication to the needs of the type 1 diabetes (T1D) community. Breakthrough T1D will continue our journey, accelerating breakthroughs in research, breakthroughs in access to treatments, and bringing the T1D community together to help everyone achieve their own personal breakthroughs.

What was the meaning and inspiration behind the name?

We chose the word 'Breakthrough' as it promises impact large and small—from scientific breakthroughs and advocacy wins to breaking through everyday obstacles. It's a rallying cry to make an impact for everyone in the T1D community.

The term T1D is used and recognised by people living with the condition. T1D demonstrates our exclusive focus on type 1 diabetes and that the condition is unique, helping us to address stigma and common misconceptions.



You can find out more about the brand by visiting jdrf.org.uk/brand



As we drive toward curing type 1 diabetes, we help make everyday life better for the people who face it



Why is JDRF rebranding?

Juvenile Diabetes is no longer a clinically used term and 88% of people living with T1D are adults. We need a brand that reflects this reality to engage with more people in the T1D community.

Our brand is changing and we're bringing our history with us to celebrate our past, present, and future. I'm excited for this new era in our history and feel that our new name, look and messaging better represent who we are, what we do, and the full spectrum of the community for whom we support.

Will JDRF's goals and mission change?

No our mission is not changing. Our mission is to still accelerate life-changing breakthroughs to cure, prevent, and better treat T1D and its complications.

As we drive toward curing type 1 diabetes, we help make everyday life better for the people who face it. We do this by investing in the most promising research and connecting the brightest minds, campaigning for access to all treatments, and empowering and supporting the T1D community.

How will this rebrand advance our mission?

The rebrand will strengthen our messaging and will help create more familiarity and engagement with our organisation, and ultimately, help us raise more funds as we drive toward cures. By telling a clearer story, of who we are and what we do, we are removing barriers to more people joining our community and supporting our mission of a world without T1D.

What was your favourite thing about working on the brand?

The best thing about being a part of the international brand working group was collaborating with such a talented group of people. It was obvious from the start how determined we were to shape a brand that would drive our mission forward. We all brought different expertise which was equally valued. In particular, the chance to work with volunteers who were also brand industry leaders was a special experience.

Insight, driven by people with T1D rather than personal opinions, was at the core of our work. I'm thrilled with the final result and the opportunities the new brand will provide. It embodies who we have been and who we aim to be, making us more relevant and allowing us to bring more people into our mission.

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You deserve to go on holiday and have fun

We've spoken to **Julie Kiefer**, who has lived with type 1 diabetes since 1997. She has since travelled to 28 countries and lived in France, Australia, and the UK. She founded the Diabetic Travelers' Network® (DTN®) to provide education, community, organised group trips and support to help people with type 1 travel with confidence

"Traveling is an incredible experience that takes us out of our comfort zone and gives us the opportunity to create memories that stay with us forever. I have travelled to 28 countries and navigated through three different health care systems with type 1. It is through planning, and some trial and error, that I discovered what works and what doesn't and gained the knowledge and experience to travel freely with type 1."

When I started thinking about traveling some people close to me started to worry – and they passed that fear onto me. I started to freak out and play out all the worst-case scenarios in my head. There were long sleepless nights, believe me. But, to me, fear is something that is learned. It is an indication that you need to prepare yourself for something. So, I wrote down all the things that could happen when I travelled. Then I made a plan

for each scenario and made sure I had a backup plan if things were to go wrong.

Up, up and away

Fast forward to now and I've travelled to 28 countries, learned two foreign languages and become an expat in a foreign country. Travel opened my eyes to the world, to humanity and its kindness. It taught me that you can make real friends in five years or in five minutes.

I became really confident in my ability not only to manage my type 1 but to keep myself safe and to manage unexpected situations with a smile. It taught me to not believe what people say but to go and see it myself. I felt safe and at home in Colombia while it was supposed to be unsafe and scary. I did a road trip around Scotland for a week and it barely rained.

I knew, deep down, that I didn't have to just watch other people travel the world. If they could do it, I could too.



CC

I knew, deep down, that I didn't have to just watch other people travel the world. If they could do it, I could too

Five reasons you can travel with type 1 diabetes

Here are my top five reasons why type 1 diabetes doesn't have to stop you travelling:

1. You are managing your type 1 diabetes already – you can do it away from home
2. You can take the supplies that you need with you
3. Time zone changes are manageable
4. Healthcare services, like hospitals and pharmacies, are available almost everywhere
5. You don't have to go far and for too long. Start small, then go further

Supporting others

I started the DTN to help every person living with type 1 diabetes, no matter where they are in the world, to get the information, level of care, support and connections they need to travel and do brave things. No more keeping children from school trips. No more stress at the airport, no more having to say no. DTN is a place where we empower each other to go further, better, together. Through DTN I give people with type 1 the confidence and know-how to take your power back. It might be hard to believe but you deserve to go on holiday, to have fun, to feel understood and to be loved and respected for the beautiful being that you are."

We asked you... **for your best travel tips, and you provided plenty of great advice. Here are some of the top recommendations:**

- Get a sunflower lanyard because they can be useful at airport security
- Always carry a Frio wallet to keep your insulin and insulin pump / pens cool
- Research how to obtain spare medication in your destination country
- Pack extra supplies, make sure you get your medical letter in advance and be cautious that heat and cold temperatures will affect blood sugars
- Take three times the amount of kit that you need
- Learn 'I am diabetic, sugar please' in every language
- Have an utterly brilliant time - travelling is *the* best thing!



Find out more about travelling with type 1 at jdfr.org.uk/travelling

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Coping with Diabetes:

A new emotional support tool for young people with type 1

We've teamed up with **DigiBete** to create Coping with Diabetes, a new interactive support tool to help children and young people with type 1 look after their mental health and wellbeing

Up to two-thirds of young people with type 1 experience feeling overwhelmed or frustrated with the condition. Known as 'diabetes distress', this can have a direct impact on young people's mental and physical health.

Available on the DigiBete app, Coping with Diabetes uses real-life stories, animations and interactive activities to help prevent and reduce diabetes distress and burnout for young people aged 10 – 14. The tool was developed by young people with type 1 and paediatric clinical psychologists and approved by clinicians working in the field.

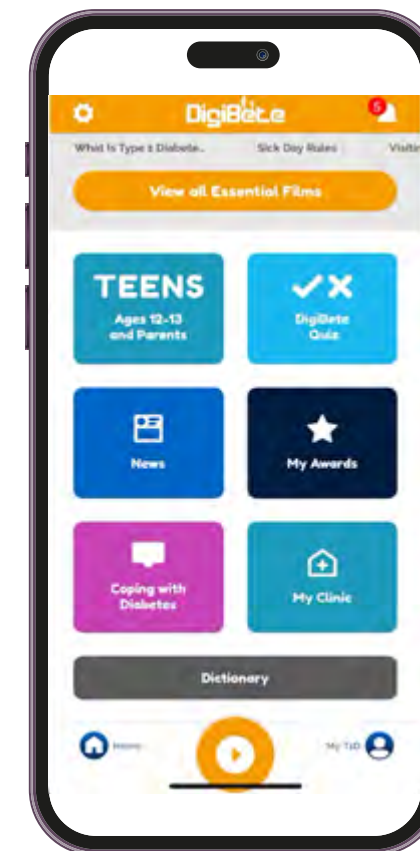
Jaiya, aged 16 and diagnosed with type 1 diabetes aged 7, helped recommended develop the tool. She said: "I think it's really important to have wellbeing resources while

having diabetes because diabetes is a condition for life and I think at any point it can get to be too much. I think these diabetes resources will help me because it's something to refer to and access when I'm struggling to cope with diabetes."

How to access Coping with Diabetes

The platform is available through the DigiBete app, which provides digital information and support directly to children and their families in England, Wales and Scotland (work is underway to extend availability to Northern Ireland). The app is used by over 80% of families and young people in England and Wales and recommended by 90% of NHS paediatric diabetes clinics.

I think it's really important to have wellbeing resources while having diabetes because diabetes is a condition for life and I think at any point it can get to be too much



To use the app, families should speak to their Diabetes Healthcare Team who can give you a login.

Coping with Diabetes will be expanded with tailored content and design for older age groups over the next year, so watch this space!

If your child is aged between 10-14 or you are aged 10-14 and already use the DigiBete app, follow these steps to access the Coping with Diabetes tool:

- Make sure you have the latest version of the DigiBete App on your phone
- Go to Google Play or the App Store to check if you need to update your version of the App
- If you don't need to update your app and you cannot see the new button, please logout and log back in with your clinic code and it should appear
- If you cannot remember your clinic code then please press 'forgotten clinic code'



Find more information about downloading the app on **DigiBete.org**

What it's like being an expert by experience in the Type 1 Diabetes Grand Challenge

David Mitchell lives with type 1 diabetes and is a member of the expert funding panel guiding the projects we will fund through the Novel Insulins challenge. Here, he explains his volunteer role on the panel, the importance of involving people with lived experience in research, and what he learnt from the experience

The Grand Challenge has committed £15 million of funding for researchers to design the next generation of insulins which will make managing type 1 diabetes less challenging. To ensure we fund the most promising projects that offer the most potential benefit for people with type 1, we asked researchers to pitch their project ideas to a panel of experts. In this blog, David shares his experience of being a lived experience member of this panel.

Novel insulins pitches

It was a privilege being part of the international panel of experts for the Novel Insulins Innovation Incubator, reviewing grant applications of up to £500,000. It was fascinating to hear the exciting ideas that the researchers presented to us. All the research ideas had a lot of viability behind them already – my role was to provide a lived experience voice to help maximise the projects' impact on people with type 1.

Together, we're making this vital research possible



Insights on living with type 1

I gave the researchers perspective on the day-to-day things I experience with type 1. While some aspects are relatively well understood, I can relay little quirks to people who don't live with the condition. For example, I asked the researchers pitching their projects to explain how their new ideas for insulin would consider the varying levels of daily activities not just between individuals but in the same person on different days.

Some of the applicants provided more detail than others on how they would factor exercise into their designs, which helped us evaluate the projects. Encouraging the researchers and other panel members to think about the daily reality of life with type 1 and how that affects science is why it is so important to involve people with lived experience in research right from the start.

Drawing inspiration from other industries

This volunteer role is very different from my career working at a financial technology (fintech) company. In that industry, we approach things from a different position to traditional corporate companies, so I've been able to suggest alternative ways of doing things. For example, we bring people together in big 'hackathon' events, which foster collaborative problem-solving over a short space of time. There's no reason this concept couldn't be taken into the research lab. This made me feel like, as well as relaying my experiences, I was also adding value to the development of the science.

“

The possibility that these insulins could be developed and allow you to forget about type 1 for the day is fabulous

Giving hope to people with type 1

As a member of the panel, I learnt a lot about type 1 diabetes research. I heard how insulin treatment could be enhanced to take away the need to constantly pump more insulin in and could be simplified to just one injection a day or even a week. Throughout the day, I learnt about different ideas for insulins that reduce the risk of hypos – a reality people with type 1 like me have to deal with.

When you live with the daily grind of constant insulin injections and glucose monitoring, the possibility that these insulins could be developed and allow you to forget about type 1 for the day is fabulous. Some trials of novel insulins are ongoing in animals. Learning that research is happening at this level gives me hope this could translate to something meaningful for humans

The Grand Challenge approaches research differently

The amount of money the Grand Challenge is investing in type 1 diabetes research is fantastic. Being a panel member opened my eyes to how this injection of funding will lead to amazing research and accelerate developments. The substantial funding means scientists aren't just working on a concept, it's taking those ideas forward to unlock real progress and new treatments. It also attracts the interest of top experts from around the world to build on their amazing existing work.

I saw how the approach the Grand Challenge takes is different to typical research funding, which can be a long process. The Grand Challenge is structured to ensure that research ideas are turned into real action and meaningful change as soon as possible, while maintaining the scientific rigor.



Find out more about the different ways you can get involved with type 1 research at jdrf.org.uk/research

Kidney and diabetes research

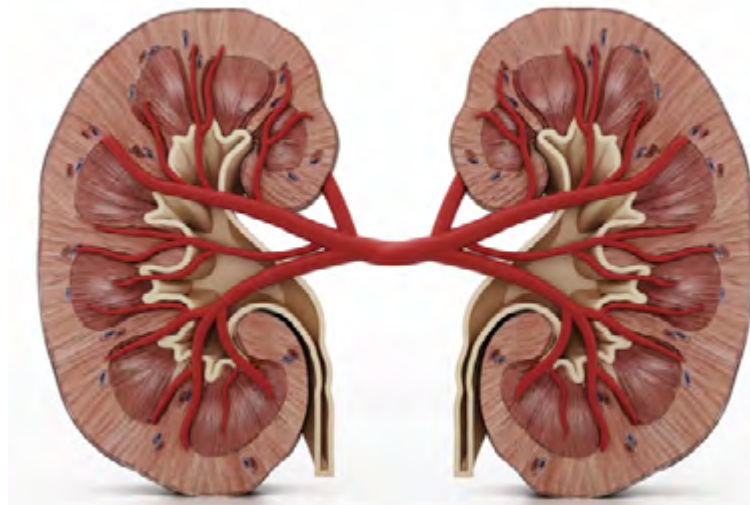
Kidney disease is a common complication of type 1 diabetes. This is because high blood glucose levels can damage the blood vessels and filters in the kidneys. Despite this, there are currently no approved medicines for people with type 1 and kidney disease. We urgently need to change the story about diabetes and kidney disease and are taking steps to achieve this

Investing £1.3 million in research

In October 2023 we awarded a £1.3 million grant to King's College London (KCL) and Steno Diabetes Center Copenhagen to run a clinical trial testing whether an existing drug, sotagliflozin, could delay the progression of kidney disease in people living with type 1 diabetes. Sotagliflozin is a type of drug called an SGLT-2 inhibitor, which helps the body release glucose in urine, rather than reabsorb it, where it can cause kidney damage.

Sotagliflozin is already helping patients with type 2 diabetes manage their condition more effectively and reducing the progression of kidney disease and heart disease. This funding from JDRF will allow the researchers to find out how this type of therapy works for people living with type 1.

Rachel Connor, Director of Research Partnerships at JDRF UK, said: "If this study shows that SGLT-2 inhibitors can effectively delay kidney complications for people with type 1, the results could be put into practice very swiftly, benefiting the entire type 1 diabetes community, enabling people to live longer, healthier and happier lives."



Partnering with Kidney Research UK and Diabetes UK

We have established a three-way partnership with Kidney Research UK and Diabetes UK to drive forward our understanding of the gaps in research into diabetes and kidney disease, and spot opportunities for future research. Together with leading diabetes and kidney disease researchers and experts by experience, we are currently drafting an article to establish key research priorities within six overarching themes: Causes, diagnosis, prevention, treatments, day-to-day management, and improved care.

This partnership is the first step towards a new narrative where fewer people with diabetes experience kidney damage, and those who do can access less invasive treatments that make a real difference to the progression of kidney disease.

We are raising the voices of people living with diabetes and its complications, accelerating focused research fuelled by collaboration, and championing coordinated care pathways, which could transform the quality of life of people with diabetes and kidney disease.

“

We are raising the voice of people living with diabetes and its complications, accelerating focused research fuelled by collaboration’



To hear more about the research supporters like you help fund, visit jdrf.org.uk/research

Product watch

Find out about the latest in type 1 medical technology



New FreeStyle Libre 2 Plus Sensor

The new FreeStyle Libre 2 Plus sensor, is compatible with the LibreLink app and reader and includes extended sensor wear up to 15 days with an expanded age indication to children over two years old. Omnipod 5 hybrid closed loop system has received approval to integrate with the FreeStyle Libre 2 Plus Sensor in the UK.



New Smart MDI System - Medtronic

Medtronic has launched its Smart MDI system comprising the Simplera CGM, InPen Smart insulin pen, InPen app and a new dedicated app for care partners. The Simplera CGM is a small, water-resistant wearable device that sends real-time glucose readings to the smartphone app every five minutes.



Dexcom ONE+ Launch

Dexcom ONE+ is now available in the UK and allows users to share their glucose readings with up to 10 people. Its high waterproof reading means users can continue using their device whilst showering or exercising.

To stay up to date on the latest advancements, visit jdrf.org.uk/research



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What would **you** spend £25,000 on?

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Smartphone control option with remote bolus delivery

Command Tap: haptic safety step before bolus delivery or Pump changes

Simplifying Diabetes

Medtrum

Research at JDRF

Recent advances in immunotherapies and early detection are transforming type 1 diabetes management, thanks to the generous donations from our supporters. These breakthroughs, which include therapies designed to interfere with the immune system attacking insulin-producing cells and methods to identify the condition earlier, are just two exciting areas in a vast world of diabetes research.



Early detection

Screening for type 1

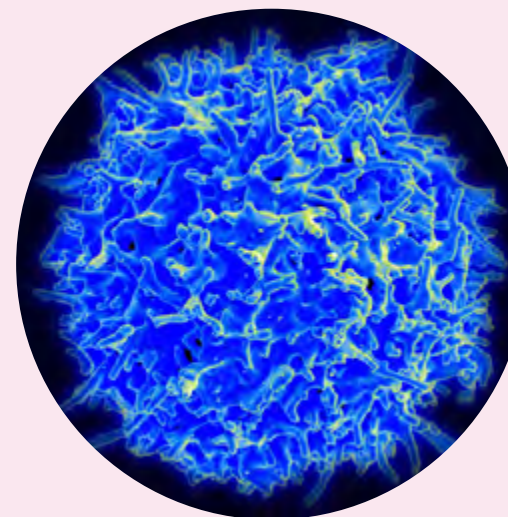
Type 1 diabetes develops gradually in three stages, the first two of which are referred to as presymptomatic. People with presymptomatic type 1 diabetes have biological markers of type 1, known as autoantibodies, which show the immune attack that destroys insulin-producing beta cells has begun. As the symptoms of type 1 are not present at this stage, we rely on screening programmes such as the ELSA study, which we co-fund, to find people who have autoantibodies.

Benefits of early detection

Supporting and educating people who test positive for autoantibodies and their support networks can lead to a smoother and safer diagnosis. This lowers the risk of diabetic ketoacidosis, a dangerous consequence of high blood glucose levels, which can cause long-term complications or even prove fatal. People who are detected early can also gain access to clinical trials, which test emerging immunotherapies and other innovative new treatments to help preserve their remaining beta cells.

Immunotherapy

As well as directly funding clinical trials, we're supporting clinical trials platforms that facilitate and accelerate the testing of immunotherapies in people with type 1, providing crucial evidence to get these drugs licensed to treat the condition.



Teplizumab

The immunotherapy teplizumab became the world's first disease-modifying therapy for type 1 diabetes when it was licensed in the US in November 2022 for people with stage 2 type 1 diabetes. It can delay their need for insulin by up to three years and our researchers have also found it can slow the progression of people newly diagnosed with type 1.

Ustekinumab

Ustekinumab is another immunotherapy drug, which is already used to treat other autoimmune conditions, including psoriasis. Researchers in the UK are now testing ustekinumab in clinical trials of children recently diagnosed with type 1.

A range of immunotherapies

There are several immunotherapies being developed and tested by researchers around the world. As we learn more about different subtypes of type 1, different immunotherapies may be more effective for different people.

To find out more:

Email: info.uk@medtrum.com

Phone: 01923 312 391

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Billy Cole,
Former British
Commonwealth
Athlete

A needle phobia doesn't need to hold you back

When needle-phobic **Billy Cole** was diagnosed with type 1 diabetes aged 56, trying to finger prick and inject was consuming his whole life. Here, the former British Commonwealth-winning athlete shares how he overcame his phobias and gives insight to others dealing with similar fears

“

My diabetes team put through an application for me to have a Freestyle Libre, which checked my blood sugar levels without having to prick a finger. This was before they became readily available on the NHS. It was a massive help as I didn't have to worry about finger prick tests and could concentrate on overcoming my needle phobia

I've had a phobia of needles and blood all my life. If I had to go for a blood test or injection, I'd be extremely anxious and would pass out when I got there. It was so bad that even watching my wife have a routine blood test when she was pregnant made me faint. It felt like the whole room was filling up with blood and it was taking over everything. It was a strange feeling that I just couldn't explain. When I got my diabetes diagnosis three years ago, it felt like a nightmare. I had no idea how I was going to take finger prick tests and inject myself. I managed to self-inject once at the hospital, but I couldn't look, which caused a lot of bruising. It was all pretty harrowing.

When I got home, I struggled on for a couple of months. It was a difficult time, and my family were worried. No matter what I did, I couldn't manage my diabetes. I was constantly anxious about injecting and testing my blood sugar levels. It consumed my whole life. It was compounded by the fact I was being treated for type 2 when a private test I went for showed I actually had type 1.

Getting support

Once I got on the right medication, my diabetes team assigned me a psychologist to help me tackle my phobias. We explored what might be causing them through weekly video calls. Thankfully, things began to change.

I realised that my blood phobia stemmed from an accident I'd

witnessed in the past. Once I understood this, we started to work on familiarising myself with blood.

The process involved looking at a selection of images given to me each week, which became progressively more intense for me to view and rationalise. These included images of a range of needles and injection devices, blood and the equipment used to take blood tests.

I don't really know the cause of my needle phobia. It was probably the fear of needles and the unknown, and being in an environment that I wasn't comfortable with. We worked on getting to know the equipment I was using, the injection process and understanding what I was feeling about it all. Persevering and familiarising myself with the self-injecting technique, made it much less of an event.

Overcoming phobias

Talking with a professional helped me to understand that my phobias were psychological. Knowing why I was afraid and having the strategies to deal with it meant with time, I began to overcome them.

One major milestone in my treatment was watching the phlebotomist take a routine blood sample. Previously, that would've caused me significant anxiety and I would've passed out. Now, I have no problem giving bloods for routine tests.

Technology and talking

My diabetes team put through an application for me to have a Freestyle Libre, which checked my blood sugar

levels without having to prick a finger. This was before they became readily available on the NHS. It was a massive help as I didn't have to worry about finger prick tests and could concentrate on overcoming my needle phobia. It put me back in control and I got my blood sugar levels almost back in the target range.

Speaking to other patients was also important. I went on the DAFNE course, which helps people with type 1 manage their condition. Chatting to others newly diagnosed was even more helpful than the course itself. I also have a friend, Keith Spurr, who has lived with type 1 for a long time. Hearing his observations, being able to ask questions and get his advice was invaluable.

Now, injecting myself is automatic and I don't even give it a second thought. Having type 1 is just part of my life which I manage quite easily. Compared to what I was when I was first diagnosed and where I am now, it's worlds apart.

Advice to others

It's a normal thing for some people to have a phobia of blood or needles, so don't be embarrassed. Overcoming it won't happen overnight and it does take time and focus. But with the help of healthcare professionals, you can do it.

A needle phobia isn't something that needs to hold you back. You can tackle it and make it an insignificant part of being type 1.



Find out more about needlephobia at jdrf.org.uk/needle-phobia

Teaching with type 1

Manisha Vadgama is a design & technology teacher with a passion for raising awareness about type 1. As well as teaching, she runs Diabetes Squad, an in-school programme and podcast giving everyone the space they need to share experiences, tips and information about living well with type 1



“I was first diagnosed with type 1 diabetes when I was 21, I remember it well. I was studying my first degree as a graphic designer and I was considering becoming a teacher.

There was somebody who said to me that teaching might not be for me because it is such a dynamic job and you're always on your feet. But I wanted to prove them wrong and I've been a teacher since 2010. I'm the head of design and technology at a secondary school in London.

What I love about teaching is it's a profession where we create other professions. Young people can come in and think about what they want to become, and we guide them.

Telling others

When I became a teacher, I didn't tell anybody other than the HR department that I have type 1.

If I was feeling quite low or I wasn't feeling great, I may have told my head of department, but I didn't tell my classes, I didn't tell my colleagues. Over the years, it's something that I haven't been able to hide but I've also accepted it. I've accepted this is what I manage every day.

I now tell all my classes that I have type 1 diabetes. I think it's really important to talk about it because it raises awareness about what type 1 is and what it entails. The misconceptions about type 1 are mainly from the staff. I've been at a Christmas party and really wanted a slice of chocolate cake and a member of staff said that I'm not allowed to have it. It did make me super-sad for a split second, but then I ate it and gave myself insulin.



There was somebody who said to me that teaching might not be for me because it is such a dynamic job and you're always on your feet. But I wanted to prove them wrong and I've been a teacher since 2010. I'm the head of design and technology at a secondary school in London'

I have noticed in my 14 years of teaching that there is an increasing number of young people who are being diagnosed with type 1 diabetes. They feel lost, broken, and uncertain of themselves. This led me to create Diabetes Squad in 2022 – a peer support group for the for the young people with type 1 in our school community.

Using technology in the workplace

Technology has really helped because I remember a time where we used to have a little A5 book. We had to write our readings in there and try to work out why we were having highs and lows. I used quick pens and a finger pricker. It took me quite a while to get used to the idea of transitioning to technology. I started off with a Freestyle Libre sensor and that was fine. It was nice and flat.

When I was asked if I would like to use an insulin pump I really wasn't sure. I didn't like the idea of it being visible or the idea of something else on my body. I thought it would be really annoying.

In the end I started by using a dummy pump without any insulin in it. I could just wear it to see what it felt like. I actually liked it. I made the choice to be wireless and started off with the Ominpod Eros and haven't looked back. I'm hoping to be on a hybrid closed loop system next.

Technology has had an enormous impact on my life. I'm able to do things now, like swimming in the ocean or walking marathons for charity, because I can see my results constantly on the go.

I don't have to stop, prick my finger and give myself insulin. It fits well with my lifestyle and being a teacher. Teachers don't even have the time to go to the bathroom, let alone give themselves insulin. I don't need to ask someone else to cover my lessons or step in while I go and give myself insulin, or while I go and prick my finger to check my glucose. I can just go on my phone and I'm able to do it seamlessly.

Choosing a career

My top tip would be for anybody that's considering whichever career they want to do, just do it. There's nothing stopping you.

All you've got to think about is if you really want to do it, just go for it. Yes, you may have to make adjustments. You may have to speak to the HR department and let them know what devices you wear or what medication you're on, but there's nothing that's going to stop you. You could become a teacher, an athlete, whatever you want to do, just go for it."

You can find out more about Diabetes Squad at diabetessquad.org



Fact

Type 1 diabetes is classed as an 'unseen disability' under The Equality Act 2010. Although you may not feel that it's a disability, this classification can help to protect you against discrimination at work



Find out more about working with type 1 at jdrf.org.uk/work

Inspirational, committed and amazing

TEAM JDRF LONDON MARATHON – A massive well done to our incredible Team JDRF runners who took on the TCS London Marathon 2024 in April. With 201 runners crossing the start line, it was our biggest team yet. Fundraising stands at over £610,000, completely smashing our targets!



RUBY'S RAMBLERS – A big thank you to Ruby (age four) and her Ramblers (mum, dad, big brother, nanny, grandad, aunties, uncle, cousins and friends) who took on One Walk London's 10km route and raised over £1,500! Ruby and her family have been blown away by the support helping them to reach their fundraising goal whilst they continue their endeavour to fund the important research that will hopefully one day provide a less invasive way of managing type 1 diabetes for every single type 1 superhero.



DAVID COCKAYNE – Thank you so much to David for completing an epic 1,000-mile cycle from Yorkshire to Copenhagen in May. David self-planned and organised his route across Europe, and has shown true dedication to raising both funds and awareness for JDRF. He's raised an amazing £7,500, which will also be matched by his company The Value Circle. Well done, David. You're a superstar!

Your passion and support make our vital work possible – thank you!



JAMIE BURTON – A huge shout out to Jamie, dad to amazing Nancy who was diagnosed with type 1 five years ago just before her fourth birthday. Jamie took on his own walk, clocking up 104 miles along the Royal Military Canal, finishing on 27 July, the day insulin was first discovered 104 years. Thank you, Jamie, for your incredible efforts fundraising and raising awareness of type 1 diabetes!



SANDY MITCHELL – Massive thanks to Sandy Mitchell who was diagnosed with type 1 six years ago and took on the epic challenge to cycle the Hebridean Way, solo unsupported. Sandy completed it in a staggering 19 hours and 54 minutes and raised over £2,000!



RACHEL HARPER – Huge thanks and congratulations to Rachel Harper and her friend, Steph. Rachel, whose son has type 1, and Steph walked the challenging 96-mile West Highland Way raising just under an amazing £5,500!



Help create a world without type 1 – Leave a gift in your Will

Our promises to you

We are extremely grateful for any gift – large or small – that you leave to JDRF to help us find ways to cure, treat and prevent type 1. In return, we make these promises to you:

- We always understand your family and friends come first, just as they should.
- We will use your gift carefully and cost-effectively, so it has the greatest research impact possible.
- We would love to know if you decide to leave a gift in your Will, so we can say thank you. But we respect your privacy and if you prefer to let us know anonymously, or not at all, then we do understand.
- You never need to tell us what or how much you want leave to JDRF. Simply letting us know you have made such a special and important gift is very helpful.
- You can change your mind at any time. Even if you tell us you plan to leave a gift in your Will to JDRF, it is not legally binding.



Gifts in Wills are powering research around the world to build a brighter future for everyone living with type 1. To find out more about leaving a gift in your Will, you can download your free legacy pack by visiting jdrf.org.uk/legacy or by scanning the QR code



What's on

Connect with the T1D community, share stories and tips, raise funds and have fun when you join a JDRF event. For full details and to view the latest list, visit jdrf.org.uk/events

Keep on running

jdrf.org.uk/runningevents

Great North Run 2024	8 September	Brighton Marathon 2025	6 April
Royal Parks Half Marathon 2024	13 October	London Landmarks Half Marathon 2025	6 April

Walk

jdrf.org.uk/events

South West Coast 50 Ultra Challenge	3 August	Thames Bridges Trek	14 September
Climb 1 for Type 1	17 August	One Walk Belfast	21 September
South Coast Ultra Challenge	7 September	Chiltern 50 Ultra Challenge	28 September
Thames Path Challenge	14 September	One Walk Aberdeen	5 October

On your bikes

jdrf.org.uk/cyclingevents

London to Brighton Bike Ride 2024	15 September
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Type 1 Discovery Days

jdrf.org.uk/discover

Liverpool Discovery Day	15 September	Virtual Discovery Event	12 November
Swansea Discovery Day	12 October		

To sign up to any of our events, go to jdrf.org.uk/events

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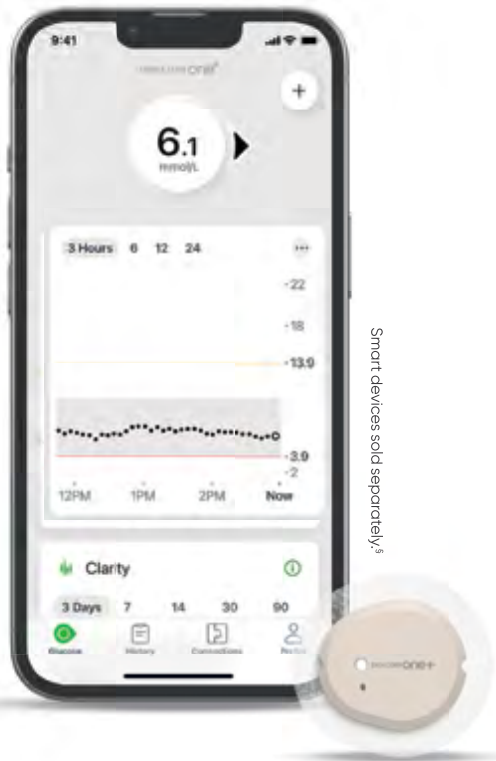
discover an easier way to manage diabetes^{†,‡,1}

introducing the new Dexcom ONE+

A continuous glucose monitoring system (CGM) that lets you see your glucose readings at a glance on your smartphone,[§] receiver,^{||} or smartwatch.[¶]

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- ✓ For type 1 and type 2 diabetes

ask your diabetes team about Dexcom www.dexcom.com/JDRF1



*If glucose alerts and readings from Dexcom ONE+ do not match symptoms or expectations, use a blood glucose meter to make diabetes treatment decisions. †Results obtained with Dexcom G7 study, which shares similar features and usability. ‡Compared to self-monitoring of blood glucose (SMBG). §For a list of compatible devices, visit www.dexcom.com/compatibility. ||Optional receiver sold separately. ¶Compatible smartphone required to send readings to a compatible smartwatch. 1 Dexcom, Data on file, 2022. 2 Dexcom ONE+ User Guide, 2023. 3 Garg SK, et al. Diabetes Technol Ther. 2022;24(6):373-380. 4 Laffel LM, et al. J Diabetes Sci Technol. 2023;17(4):962-967. Dexcom, Dexcom Clarity, Dexcom Follow, Dexcom ONE+, Dexcom Share, and any related logos and design marks are either registered trademarks or trademarks of Dexcom, Inc. in the United States and/or other countries. ©2024 Dexcom International Ltd. All rights reserved. Dexcom International Ltd and its affiliated European entities. This product is covered by U.S. patent. dexcom.com | +1.858.200.0200 Dexcom, Inc. 6340 Sequence Drive San Diego, CA 92121 USA | MDSS GmbH Schiffgraben 41 30175 Hannover, Germany. MAT-2600.



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1. Glucose readings are automatically displayed in the FreeStyle LibreLink app only when your smartphone and sensor are connected and in range. 2. The FreeStyle LibreLink app is only compatible with certain mobile devices and operating systems. Please check the website for more information about device compatibility before using the app. Use of FreeStyle LibreLink may require registration with LibreView. © 2024 Abbott. The sensor housing, FreeStyle, Libre, and related brand marks are marks of Abbott. ADC-93187 v1.0 05/24.

I want to give a gift towards life-changing research

1 Here is my gift of....

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2

Please make any cheque payable to JDRF. To give by Mastercard/Visa (delete as appropriate) please fill in below:

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Your details

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Keep in touch

To sign up to our emails and hear about the latest type 1 research, news, events and how you can help advance our work please complete your email address below:

You can change the way we contact you at any time by calling us on 020 7713 2030

5

Gift Aid

giftaid it

Yes I want to increase the value of my donation to JDRF by 25% at no extra cost.

☐ Yes, I want to increase the value of my donation to JDRF by 25% at no extra cost. I am a UK taxpayer and want to Gift Aid this donation and any donations I make in the future or have made in the past 4 years to Juvenile Diabetes Research Foundation. I understand that if I pay less Income Tax and/or Capital Gains Tax than the amount of Gift Aid claimed on all my donations in that tax year it is my responsibility to pay any difference.

Date:

☐

I am not a UK tax payer.

Thank you. Please return your form in the **freepost envelope provided** or to **Freepost RTYC-XAJB-ZGUG, JDRF, 17/18 Angel Gate, City Road, London EC1V 2PT.**

You can also donate online at **jdrf.org.uk/donate** or call us on **020 7713 2030.**

Leaving a gift in your Will

We understand that deciding to leave a gift in your Will is a very personal decision. But if you are happy to let us know your plans it would be a great help. Anything you tell us is strictly confidential.

- ☐ **I am considering** leaving a gift in my Will to JDRF
- ☐ **I intend to** leave a gift in my Will to JDRF
- ☐ **I have already** left a gift in my Will to JDRF

To find out more about leaving a gift in your Will, you can download your free legacy pack by visiting jdrf.org.uk/legacy or by scanning the QR code.



Children should never have to struggle with type 1 – it's so important to come up with a cure and better treatments I believe so much in JDRF's research, I want to leave a gift in my Will to help.

Margaret

grandmother to Fleur who was diagnosed with type 1 aged 9



Thank you.

Please return your form in the freepost envelope provided or to **Freepost RTYC-XAJB-ZGUG, JDRF, 17/18 Angel Gate, City Road, London EC1V 2PT.**

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