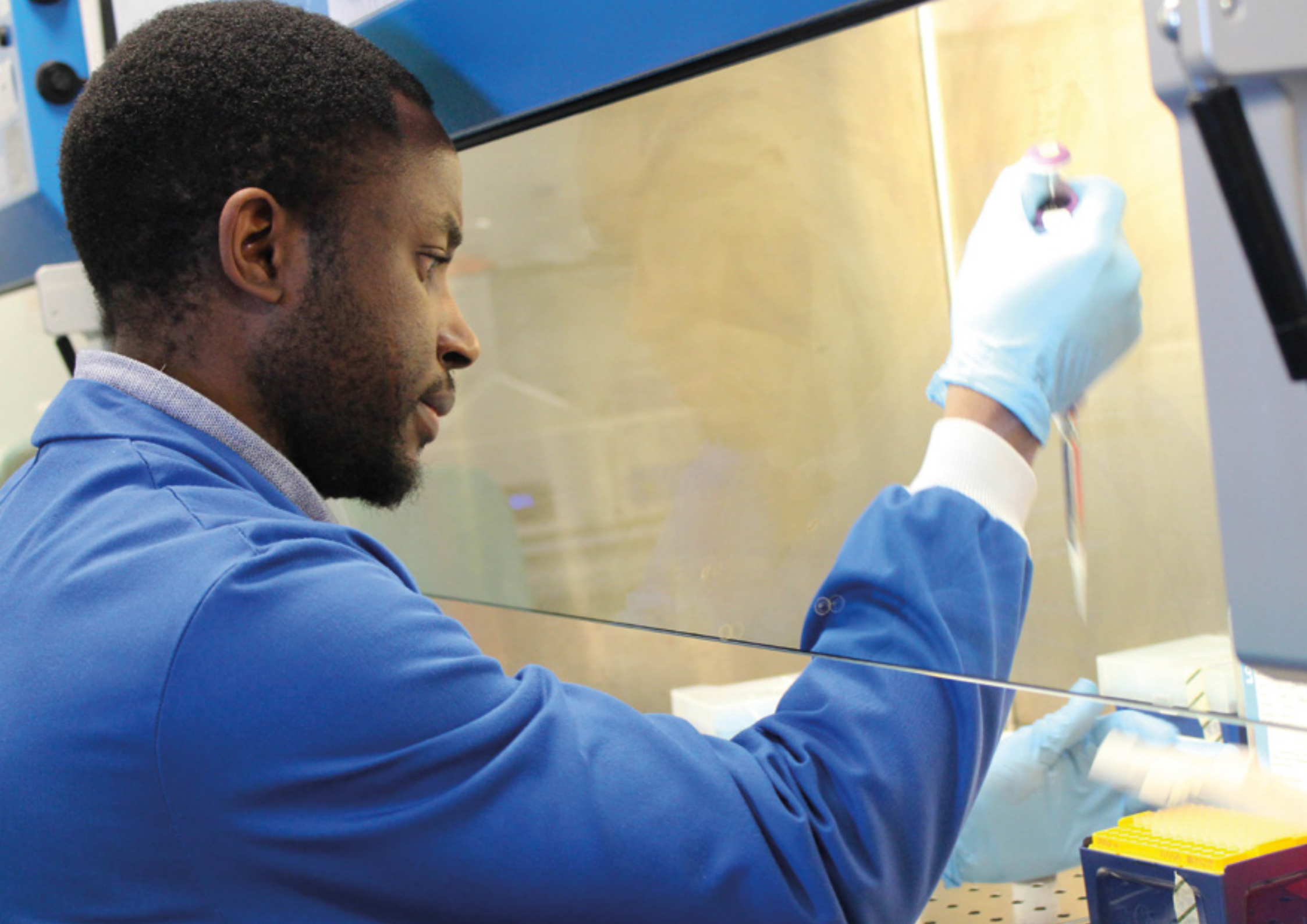
DIABETES UK
KNOW DIABETES. FIGHT DIABETES.

DIABETES UK RESEARCH STRATEGY

2020 - 2025



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INTRODUCTION

from Dr Elizabeth Robertson, Director of Research, Diabetes UK

As we publish our research strategy for the next five years, we do so at a time of unprecedented challenge. The COVID-19 pandemic has acutely and disproportionately affected people living with diabetes, bringing into sharp focus the seriousness of the condition. This new threat has emerged alongside an existing diabetes emergency. Almost half a billion people are living with diabetes worldwide[1]. The costs of diabetes care are vast. And the scale of the problem is increasing.

Rising levels of obesity are contributing to the growing numbers of people living with type 2 and gestational diabetes[2]. And for reasons we don't fully understand, the incidence of type 1 diabetes is also increasing[3].

The only way to effectively end the harm caused by diabetes is through research. But current levels of research funding are too low. Less than 1% of what's spent on diabetes care and support is invested in research[4,5]. And with the COVID-19 pandemic delivering a sharp shock to the income of medical research charities, the funding landscape may face even tougher challenges in the future.

The UK has some of the best diabetes researchers and research centres anywhere in the world, working on new treatments, better ways to care and support people living with diabetes, and achieving an even deeper understanding of the complexity and causes of diabetes. But without more investment in research, and a plan to make sure our funding is directed to where it's needed most, we won't be able to make progress at the pace we need to.

Our ambitions

Our organisational strategy, A Generation to End the Harm, sets out two big ambitions. Firstly, that we want people to **live well and longer with diabetes**, and secondly, we want to **cure or prevent diabetes**.

To fulfil these ambitions, we've defined five outcomes we want to see. And we know research is critical to help us achieve these:

1. More people with or at risk of type 1, type 2 and all other forms of diabetes will benefit from new treatments that cure or prevent the condition.
2. More people will be in remission from type 2 diabetes.
3. More people will get the quality of care they need to manage their diabetes well.
4. Fewer people will get type 2 and gestational diabetes.
5. More people will live better and more confident lives with diabetes, free from discrimination.

This document sets out our research priorities under each outcome and how focusing on these priorities will move us closer to delivering our ambitions.

Shaping the future together

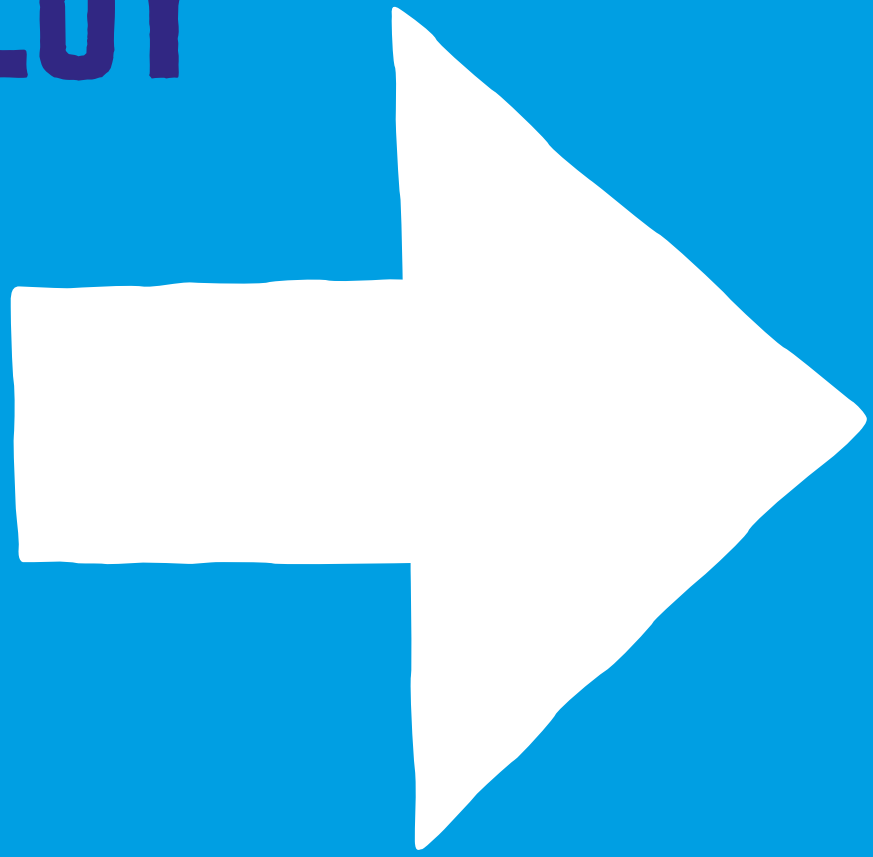
We have developed our research priorities in partnership with the Diabetes Research Steering Groups, which were formerly known as the Clinical Studies Groups. The groups are a platform for people living with diabetes, researchers and healthcare professionals to work together to use personal, professional and clinical experiences to focus and develop research. They agreed specific areas where there was a critical lack of understanding and a severe unmet need in research. As a result, we're dedicating an additional £2.5 million to these research priorities over the next five years, but we know this alone isn't enough.

So, we've set out five key commitments later in this strategy determining how we will strengthen the research environment and champion these priorities. We need to bring new and different thinking into diabetes research, nurture rising talent, work with partners to find more funding opportunities and continue to put the voices of a wide range of people at the heart of our work.

We launch this strategy at a time of huge change and challenge for so many, including the research community. COVID-19 has required us to think differently about how we work. We need to make sure that the research we fund is fit for a new world, helping overcome future health crises, as well as reducing the harm for everyone living with or at risk of diabetes now.

The future must be transformative research on a greater scale.

DELIVERING ON OUR 2015 TO 2019 RESEARCH STRATEGY



“In implementing their 2015 to 2019 research strategy, Diabetes UK has shown the way in enabling life-changing research.”

“They have established the Diabetes Research Steering Groups and created partnerships to boost diabetes research funding. They are at the forefront of supporting young researchers and investing in future leaders. They have delivered standout successes in type 2 diabetes remission and immunotherapy for type 1. Across so many measures, Diabetes UK has provided a firm platform to reduce the harm diabetes causes and make an even bigger impact in the future”.

Professor Stephanie Amiel is Professor of diabetes research at King’s College London and Chair of Diabetes UK’s Science and Research Advisory Group.

HERE’S THE DIFFERENCE WE MADE

WE INCREASED OUR FUNDING

In 2015, we committed to increase our year-on-year support for new project grants and help our researchers gain follow-on support for the later stages of their work. We have delivered this through:

- Increasing our total research expenditure over the past five years by £4.2 million, from £32.2 million in 2010 to 2014 to £36.4 million in 2015 to 2019.
- Growing our support for early career researchers through our personal support schemes, from £8 million in 2010 to 2014 to £11.7 million in 2015 to 2019.

WE GREW INVESTMENT

In 2015 we said we'd work with partners to direct more funding into UK diabetes research. Since then we have:

- Set up partnerships with charitable funders such as the British Heart Foundation and JDRF, alongside the National Institute for Health Research and the Academy of Medical Sciences, bringing an extra £2.7 million into diabetes research since 2015.

"The sheer volume of high quality applications means that we cannot fund every excellent project that we would like to. But by building exciting partnerships with key funding organisations, we've been able to support much more of the very best collaborative research".

Professor David Adams, Chair of the Diabetes UK Research Committee, is Pro-Vice-Chancellor and Professor of Hepatology at the University of Birmingham.

WE SUPPORTED FUTURE LEADERS

In 2015 we said we'd support more diabetes early career researchers to become leaders in their field. We've achieved this through:

- Launching and committing £2.4 million to the Harry Keen Intermediate Clinical Fellowship, providing dedicated leadership support for diabetes researchers working in the NHS.
- Increasing our overall research fellowship commitment and bringing a total of 18 new fellows into diabetes research.
- Providing a dedicated funding scheme for early career researchers. This has provided much needed seed funding to 45 researchers at 29 universities across the UK.
- Investing £2.6 million funding for 27 PhD studentships over the last five years, from understanding beta cell failure in type 2 diabetes to using machine learning to predict type 1 diabetes.

Dr Lee Roberts is one of Diabetes UK's RD Lawrence Fellows

WE GAVE PEOPLE WITH DIABETES A LOUDER VOICE

In 2015 we said we would champion the priorities that matter most to people living with or at risk of diabetes.

- In 2017, we established the Diabetes Research Steering Groups so people living with diabetes, healthcare professionals, including diabetes doctors, nurses, dietitians and podiatrists, and academics could set the agenda for research together. These groups span all areas of diabetes research from the causes of diabetes to acute care. Find out more on pages 10 and 11.
- We led the James Lind Alliance Priority Setting Partnership for type 2 diabetes[6] to discover what people living with diabetes and healthcare professionals think the top 10 research priorities should be. This gathered insight from over 2,500 people and was recognised for its wide reach and the diversity of its participants. These priorities have been reviewed by the Diabetes Research Steering Groups to begin to move them forward.
- The Grants Advisory Panel has continued to support Diabetes UK to keep our research funding focused on what matters most to people living with diabetes. The panel works alongside scientists to review applications we receive and make sure we fund research that's relevant and important to people living with diabetes.

"The Diabetes Research Steering Groups are a part of Diabetes UK's artillery in fighting diabetes, and I feel lucky and proud to be part of it."

Dr Goher Ayman lives with type 1 diabetes, and was one of the first members of the Diabetes Research Steering Groups.

DIABETES RESEARCH STEERING GROUPS

A hub for diabetes research

WHO ARE THEY?

PURPOSE

Identify research priorities and uncover ways to address them, so future research will...

- Focus on what matters most to people with or at risk of diabetes.
- Move even faster.
- Be even more effective.
- Attract more investment.

KICKOFF PRIORITIES

Research community

The groups lay out clear recommendations to researchers and funders on how best to address gaps in research.

They published a report tackling mental wellbeing and setting out the path future research should take.

The groups work with the wider research community to secure greater investment in the urgent priority areas.

Partnering with the NIHR, they called for better ways to protect those most at risk from complications.

- Transforming the mental wellbeing of people with diabetes
- Preventing complications in people who are at high risk
- Supporting people with diabetes and eating disorders

"We're using the Diabetes Research Steering Groups priorities to drive our strategic funding, but the roadmap they set is also for the wider research community to follow. In this way, together we can ensure that the most crucial diabetes research happens faster."

Dr Elizabeth Robertson,
Diabetes UK's Director of Research

Diabetes UK

We use the priorities to make strategic funding decisions.

We put a call out for research around diabetes and eating disorders. We've now invested over £300,000 into this gap. Go to page 23 to read about the projects.

RESEARCH PRIORITIES

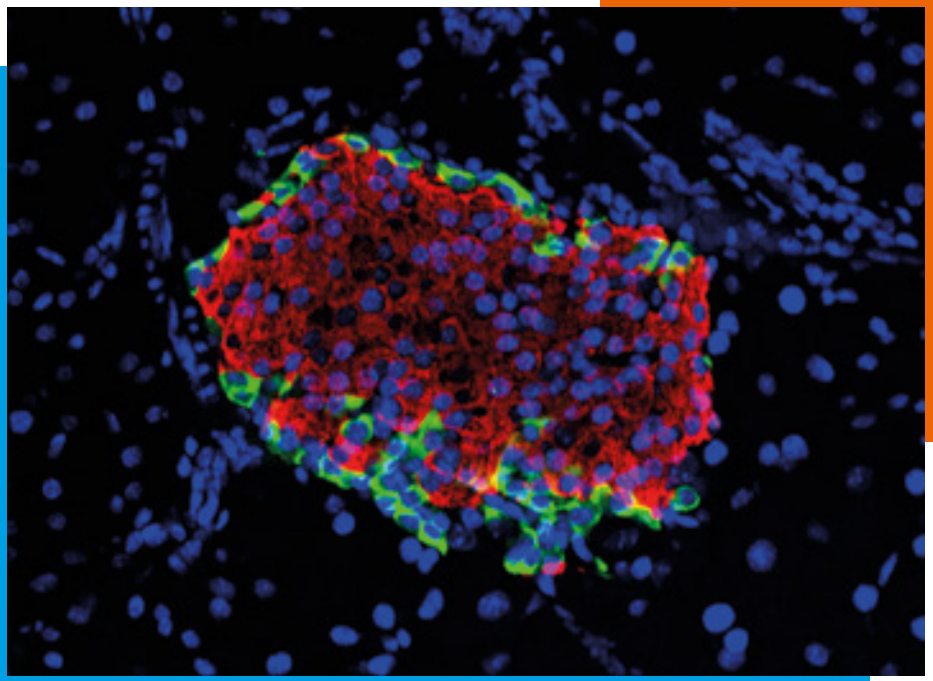
Our research priorities support the five outcomes set out in our organisational strategy.

By working with the Diabetes Research Steering Groups, the wider research community and involving more people living with or at risk of diabetes, we know we're focusing on today's most urgent and important challenges.

This is not just our strategy. It's a call to arms. We want funders, researchers and organisations to join us in fueling more valuable, more innovative and more impactful research. These are our plans to change lives through research. We won't stop until we can say that together, we have created a world where diabetes can do no harm.

1 CURE OR PREVENT

More people with or at risk of developing type 1, type 2 and other forms of diabetes will benefit from new treatments that cure or prevent the condition.



Where we are now

To cure or prevent type 1 diabetes, we need to halt the immune attack behind the condition. Funding is needed for late-phase clinical trials to make the first licensed immunotherapy a reality, opening the floodgates to more treatments. We need to capitalise on breakthroughs in islet cell transplantation and beta cell regeneration that are already moving us closer to a cure.

A so-called 'practical cure' for type 1 diabetes is also on the horizon. Closed loop technology can improve blood glucose levels and make living with diabetes drastically simpler. Devices are now reaching healthcare markets around the world but more needs to be understood about the impact they have, on both people's physical and mental health.

To stop the development and progression of type 2 diabetes we need to know more about insulin resistance and beta cell failure. We need to understand the particularly aggressive nature of type 2 diabetes in children and young people[7], and the different strategies we need to tackle it.

We need to look at the heterogeneity of type 2 diabetes, and understand if 'subtypes' – each with potential differences in aetiology and progression – exist. This knowledge could revolutionise the way type 2 diabetes is viewed, opening up personalised and far more effective cure and prevention strategies[8].

The impact of our research

In 2014 we formed the Type 1 Diabetes Immunotherapy Consortium, in partnership with JDRF. This network of research centres and scientists has changed the landscape in the UK, providing the expertise and infrastructure to run large immunotherapy clinical trials and recruit to them quickly. It has helped the UK go from struggling to carry out trials to now being one of the leading countries of choice for immunotherapy research.

Our research fellow, Professor David Hodson (pictured) pioneered imaging technology to study how beta cells orchestrate the release of insulin. In 2016, he found that type 2 diabetes might be due to a handful of beta cells failing, rather than all of them[9]. His research opens up the possibility of kick starting small groups of beta cells, called hubs, to help people make the right amount of insulin, stopping the progression of type 2 diabetes.

Research priorities

We need to work with researchers, funders and partners to:

- Support the Type 1 Diabetes Immunotherapy Consortium to reach the first licensed immunotherapy for type 1 diabetes.
- Enable better understanding of diabetes when it arises in non-typical circumstances, such as type 2 diabetes in children or type 1 diabetes after some cancer treatments.
- Drive forward understanding of how to restore insulin secretion in people with type 1 diabetes and how to measure the success of doing so in clinical trials.
- Better understand the fundamental biological and physiological mechanisms behind type 1, type 2 and gestational diabetes in order to reach a cure.

2 MORE PEOPLE IN REMISSION

More people will be in remission from type 2 diabetes.

Where we are now

Remission has the potential to offer millions of people living with type 2 diabetes a better quality of life, but more research is needed.

Evidence shows that weight loss is key to people going into remission and to remaining there. Both bariatric surgery and dietary changes can result in life-changing outcomes. Trials found that 30 to 60% of people with type 2 diabetes who have had bariatric surgery go into remission[10], and there's evidence some can stay there for up to 10 years[11]. Studies suggest that changes to gut hormone levels post-surgery can lead to improved blood glucose levels[12] and combination gut hormone therapies are showing early potential to replicate the effects of surgery[13,14].

For people who lose weight by making changes to their diet, the strongest evidence shows that a low-calorie diet, alongside weight loss support from a healthcare professional, can help people go into remission[15].

It's these kinds of results that give us real hope for big changes in the near future. But we need to find ways to make sure that as many people as possible with type 2 diabetes can benefit from remission. Weight management interventions for remission have predominately been delivered in White populations. We need more research, especially to understand how effective remission interventions can be in Black, Asian and Minority Ethnic (BAME) populations. And we need to understand how to personalise approaches to remission to make them as effective as possible.

The impact of our research

In 2013, we funded Professors Mike Lean and Roy Taylor to set up the DiRECT study and conduct a cluster randomised trial to see if a low-calorie weight management programme could put type 2 diabetes into remission. Two years later, 36% of participants were in remission[15] and DiRECT was integral to the NHS England pilot remission programme, due to start in the autumn of 2020.

The DiRECT study is helping change lives right now, as well as revealing further insights into how type 2 diabetes can be put into remission[16].

"I'll never forget the people who gave me the opportunity to do it. I struggle to think what would have happened had I not taken part. I don't think I would have been in the condition I'm now in – so, for me, it has been life-changing".

Edward Morrison has now been in remission for nearly five years after taking part in DiRECT.

Research priorities

We need to work with researchers, funders and partners to:

- Increase understanding of the underlying biology, physiology and mechanisms of remission.
- Begin to work on personalising remission interventions based on individual variation, choice and local and regional context. For example, whether the impact of support from peers and health professionals, or whether digital interventions are more or less effective than face-to-face.
- Establish care pathways for people who reach remission to ensure that they receive the care they need and remission can be maintained.
- Increase understanding of the impact of remission interventions on psychological wellbeing.
- Establish the effectiveness of different weight management interventions in different BAME communities.
- Make sure interventions that are successful in clinical trials become clinical practice.
- Drive forward our understanding of the role of gut hormones in remission.
- Establish the best approaches to combining remission interventions with other therapies.

3 QUALITY OF CARE

More people will get the quality of care they need to manage their diabetes well.

Where we are

We know that accurate and timely diagnosis of diabetes is critical if people are to receive the right care at the right time. A quarter of children with type 1 diabetes are diagnosed dangerously late when they're already very unwell. As well as this, we estimate that there are at least 1 million people in the UK living with undiagnosed type 2 diabetes right now[17]. More research is essential if we want healthcare professionals to give accurate diagnoses earlier and more often, including searching for ways to identity who has a higher genetic risk of type 1 or type 2 diabetes.

And after a diagnosis, access to support and treatments to help people avoid complications is critical. Too many people with diabetes still live with kidney disease, sight loss, heart disease and amputations. We need to keep researching how and why these complications happen. We need more effective ways to prevent, manage and treat them now and in the future.

The impact of our research

Our Harry Keen research fellow, Dr Richard Oram, together with scientists at Seattle University, developed a genetic 'risk calculator' using data science techniques[18]. It uses genetic information to help find children at highest risk of developing type 1 diabetes, and could in the future lead to earlier and more accurate diagnoses.

Dr Pamela Bowman, with funding from Diabetes UK, studied the long-term effects of taking sulphonylurea tablets in people with neonatal diabetes. In 2018, they discovered that more than 9 out of 10 people had excellent blood glucose control after 10 years of taking the therapy[19].

"Within just a few weeks of switching treatment, it became obvious that Jack's blood sugar levels were really stable. He had stopped collapsing on the floor and he suddenly started smiling and laughing. For us, it really was a miracle."

Emma's son Jack has neonatal diabetes. This research shows for the first time that he can safely take sulphonylurea tablets as a very effective long term treatment.

Research priorities

We need to work with researchers, funders and partners to:

- Support research which allows the accurate diagnosis of different forms of diabetes, understanding their heterogeneity.
- Increase understanding of the mechanisms underlying diabetes complications and who gets them, alongside developing approaches to manage and prevent them.
- Develop and optimise technology which can assist with managing blood glucose levels and diabetes complications.
- Establish the optimal treatments for type 2 diabetes when metformin is no longer sufficient.
- Improve the transition of people with all types of diabetes from paediatric to adult care.
- Increase understanding about how diet affects diabetes management.
- Develop guidance for people with fluctuating hormone levels, for example during puberty, the menstrual cycle and menopause, to help them manage their diabetes.
- Improve health services for diabetes care, making more effective use of patient-reported outcome measures, audit and real-world data to drive service improvement.
- Ensure people with diabetes continue to receive the best possible care as they get older and need support in different ways.

4 FEWER PEOPLE WILL GET TYPE 2 AND GESTATIONAL DIABETES

Where we are

We're facing an urgent public health epidemic. 29% of adults in the UK are living with obesity, as are 20% of 10 to 11 year olds[20]. Obesity is a key factor driving the rise in type 2 diabetes over the last 20 years and the increase of new cases of diabetes in pregnancy[21].

Around 35,000 pregnant women in the UK develop gestational diabetes every year[22], increasing the risk of complications and the risk of future type 2 diabetes for both the mother and child[23]. But there's still no universal diagnostic criteria, making it harder to identify and support those at risk.

For type 2 diabetes, the role of lifestyle and in particular, diet and activity levels, is a key focus for prevention strategies. Reductions in weight and HbA1c demonstrated in the NHS Diabetes Prevention Programme are encouraging, and are comparable to national programmes in the USA and Finland[24,25], providing hope it may lead to reductions in future incidence of type 2 diabetes. But we must never stop evaluating, learning from and improving programmes to make sure we can best support people to reduce their risk.

The impact of our research

In 2016, research supported by Diabetes UK found a more accurate way to identify who is at a high risk of developing gestational diabetes, meaning women can take measures to prevent or manage the condition[26]. Researchers at King's College London found that analysing some simple measurements, including blood pressure and skin fold thickness, together with personal information and family details, can accurately predict the risk of gestational diabetes in women with obesity.

Recent research into the genetic markers of type 2 diabetes is finding new ways to prevent the condition developing. We supported researchers at the University of Bristol who discovered that risk markers of type 2 diabetes appear in childhood, often decades before a clinical diagnosis[27]. They found that people with a high genetic risk have certain metabolic disturbances in their childhood and early adulthood. In the future, these insights could help us reach and treat more people before the harm is done.

Research priorities

We need to work with researchers, funders and partners to:

- Support a culture of collaborative innovation and insight sharing, embedding it into all research and prevention programmes.
- Find the best ways to prevent type 2 diabetes and help people live with a healthy weight without increasing stigma.
- Determine the health inequalities people with or at risk of type 2 and gestational diabetes face, particularly relating to sociodemographics, and develop strategies to fight them.
- Drive forward understanding about the environments and systems that can cause obesity, and develop new ways to change them.
- Test the effectiveness of local, regional, national, workplace or community programmes to help people manage their risk of type 2 diabetes.
- Develop research that gives us a deeper and richer understanding of the effects of gestational diabetes on pregnant women and their experience of living with the condition.

5 BETTER AND MORE CONFIDENT LIVES

People with diabetes will live better and more confident lives, free from discrimination.

Where we are now

People with diabetes experience much higher rates of mental health problems compared to people without the condition[28]. But we don't know enough about how or why this happens, or how to best care for them if they do.

To live better lives now and reduce their risk of complications in the future, people need information and tools to manage their diabetes. Over the past 20 years, education courses have helped people with type 1 and type 2 diabetes manage their condition, and improve their health[29,30]. Digital self-management courses are now also becoming available, but we need to keep increasing uptake, access and meaningful evaluation.

There's also a vast spectrum of digital apps and technologies available to help people with diabetes live well. But we need to know more about how effective these technologies really are for people living with diabetes.

A huge barrier to living well is the stigma of diabetes. Diabetes is shockingly misunderstood and those who have experienced social stigma report that it impacts them emotionally, socially and affects their diabetes management[31]. Through research we need to understand, reduce and ultimately prevent stigma from ever happening.

The impact of our research

Our research is already working hard to help people lead happier, more confident lives with diabetes. In 2018, the Diabetes Research Steering Groups identified a major gap in knowledge and research about diabetes and mental wellbeing. We united world-renowned researchers and people living with diabetes to discuss and agree priority areas, leading to a landmark report that showed where investment was urgently needed the most[32].

The report led us to launch a strategic funding call focused on preventing and treating eating disorders in people with type 1 and type 2 diabetes. With our funding, Dr Christina Jones at the University of Surrey is developing an intervention for parents and carers to help children with type 1 diabetes avoid eating problems. While Dr Gemma Traviss-Turner at the University of Leeds is designing an online intervention to help treat people with type 2 diabetes and binge eating disorder.

Research priorities

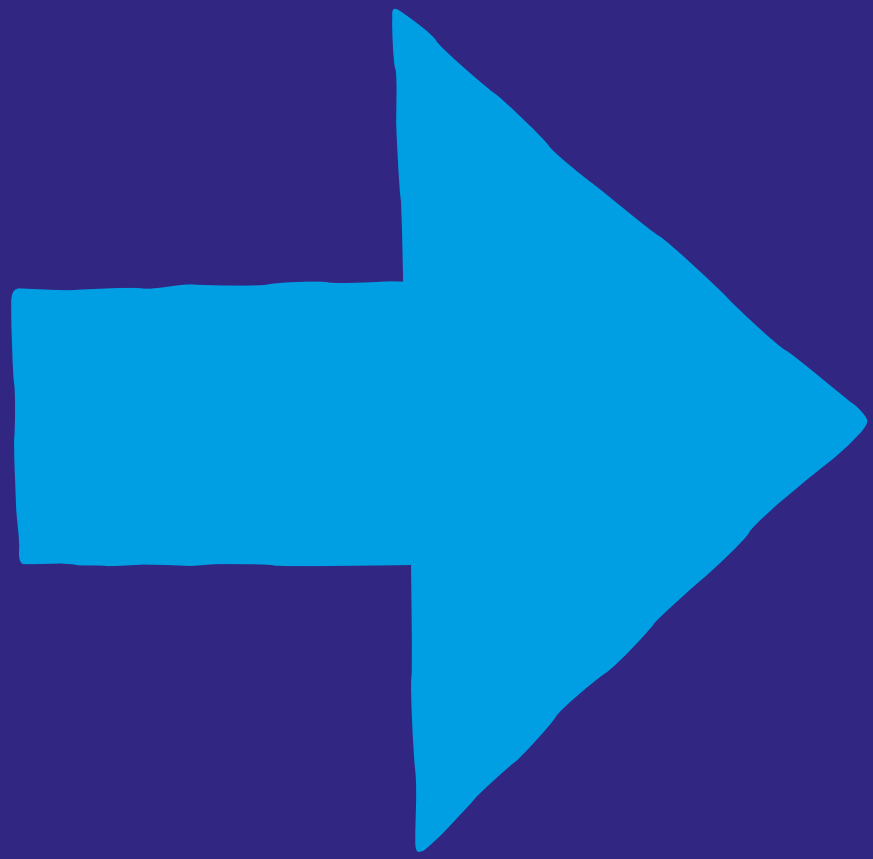
We need to work with researchers, funders and partners to:

- Increase understanding of the mechanisms underlying depression for people living with diabetes, including the impact of the social stigma that people with diabetes face.
- Improve primary prevention of mental health issues at the time of diagnosis.
- Improve screening for and management of diabetes distress in routine care pathways.
- Enable research which supports people who find it difficult to engage with their diabetes; and those with diabetes and eating disorders.
- Increase understanding of the impact of current diabetes technologies on mental health, and their effectiveness in helping people with diabetes live well.
- Drive forward policy-related research, to help understand the impact of public health policies which support living well with diabetes.

WE WON'T STOP

We are leading the way. We are investing heavily to accelerate progress, and calling for others to follow our lead. We will always support the best investigator-led proposals, from basic science through to clinical research, while keeping a sharp focus on funding our strategic priorities.

As long as diabetes exists, we won't stop. Here's how we will continue to fund, support and enable research:



BRING NEW IDEAS INTO DIABETES RESEARCH

Today's treatments and technologies all started with a great idea that research funding helped bring from the lab to the diabetes clinic. We will keep leading the field in innovative thinking, and kick-starting new areas of exploration to move even faster towards ending the harm diabetes does.

We are excited by the potential of new concepts and ideas that can transform the future. And we want researchers and funders to unite with us to make them a reality. Can data science and machine learning be used for risk stratification or prediction? Or could social science research break through inequalities? The challenge and scale of the problem is too great to keep doing the same things. We will create new ways of working with innovative funders and researchers. We will keep learning and progressing together to increase the impact of what we do. We are determined to keep pushing ourselves, our partners and society forward to change more lives. We are going to end the harm diabetes does for this and every generation to come.

WE WILL:

- Work with the Diabetes Research Steering Groups to understand where new types of research might be needed.
- Encourage new forms of research through our investigator-led and strategic funding streams.
- Review the application and peer review processes for our investigator led funding schemes, to support innovative ideas.
- Grow our investment in innovative research, through strategic funding and leverage partner and donor support for specific programmes.
- Broaden our engagement and reach with researchers and research organisations outside our current contacts and networks.

We're already supporting exciting new methods in diabetes research. In 2019, we funded Professor David Bennet to use machine learning to identify risk factors for painful neuropathy. He will develop a 'calculator' that could help to spot people most at risk, so they can be better supported and helped to avoid debilitating pain.

BRING PEOPLE TOGETHER TO ACCELERATE PROGRESS

Diabetes UK is powered by its volunteers and so is its research. We wouldn't be the unstoppable force we are without the people who give their time, energy and passion to work tirelessly to end the harm caused by diabetes.

We champion and celebrate the Diabetes Research Steering Groups, through our Grants Advisory Panel we keep people with diabetes integral to our funding decisions, and we ensure we always lead the field in urgent, relevant and life-changing research.

WE WILL:

- Open a strategic funding stream driven by the priorities identified by the Diabetes Research Steering Groups, adding £2.5 million for research over five years and even more partnership investment.
- Continue to lead the way in patient and public involvement in research, and make sure we always listen to a diverse range of people, of different ages, ethnicities and backgrounds.
- Bring the research community and people living with diabetes together to find the most important research questions on diabetes in different ethnic minority groups.

"It's a great opportunity to share ideas, meet like-minded people, and have your voice heard by diabetes experts. The professionals really do listen to us 'lay' people!"

Jinty Moffett is living with type 1 diabetes and a member of both our Grants Advisory Panel and a Diabetes Research Steering Group.


DIABETES UK
DIABETES UK

MAKE SURE THAT RESEARCH BENEFITS PEOPLE WITH DIABETES SOONER

It's no good funding research that just sits in a scientific journal. Diabetes is harming more and more people every day. We have a duty to make sure research makes a difference to them. We will work with scientists, the NHS, policy makers and industry to make sure new treatments, technologies and improvements to care reach the people who need them today.

In 2018 we saw the results of an economic study which calculated the costs and savings involved in delivering the DiRECT programme[33]. It suggested that the health service could save money if remission programmes became available. Since then NHS England has committed to piloting a remission programme for 5,000 people with type 2 diabetes and NHS Scotland started to roll them out.

WE WILL:

- Ensure that we support high quality research that has a clear line of sight to, or supports, translation in to practice. This includes health economic evaluations and research focused on health service design and improvement.
- Lead the way in opening up research findings and encourage others to do the same, to support the rapid roll-out of new treatments. This includes the publication of open datasets, and research protocols and methodologies where possible.
- Unite the research community to increase recruitment to diabetes clinical trials.
- Bring together existing data for use in research and support other researchers and organisations to contribute their information towards our common goals.

“The Harry Keen Fellowship gives me the opportunity to invest much more of my time in research, do a much more ambitious project and really provide a great foundation for me to develop into a research leader”

In 2018, Dr Claire Meek became our latest Harry Keen Fellow. She’s finding out if reducing calories during pregnancy could improve the management of gestational diabetes, and make for healthier mums and babies.

ENCOURAGE THE BEST MINDS INTO DIABETES RESEARCH

Great research cannot happen without great researchers. As new and exciting ideas emerge, the next generation of diabetes researchers must be ready to pick up the baton. We want to support researchers already working in diabetes to develop their careers, transition to independence and become the research leaders of the future. We'll continue to support the most talented, determined and innovative scientists and healthcare professionals across a wide range of disciplines to make diabetes research their life's work, in pursuit of a world where diabetes can do no harm.

WE WILL:

- Maintain our focus on early career researchers, increasing the number of and investment in PhD studentship, fellowship and early career small grant awards.
- Increase access to a first grant by streamlining the application and review process for our early career small grant scheme.
- Update funding policies for our existing fellowship schemes to provide as much flexibility as possible to our award holders.
- Attract more researchers into diabetes at as early a stage as possible and work with our community of early career researchers to better understand the barriers and motivators to a career in diabetes research.
- Support a mentorship programme for our early career researchers.
- Provide a springboard from small grants to larger awards through our funding schemes, so that the best ideas can scale up and help more people living with diabetes.
- Increase the involvement of early career researchers in the Diabetes Research Steering Groups.

LEVERAGE THE POWER OF PARTNERSHIP

We can all achieve more by working together. Acting as a hub and a facilitator, we will unite experts and organisations to drive change. We will build on existing partnership models and keep pushing for more investment into research to end the harm. We will work with international partners to make the biggest difference for people with diabetes.

We're forming more partnerships to bring greater investment into diabetes research. The Diabetes Research Steering Groups identified that protecting people who are at very high risk of developing diabetes complications was an urgent priority for future research. So in 2020, we set up a partnership with the National Institute for Health Research to launch a strategic funding call to fill this research gap and find answers that will stop the harm.

WE WILL:

- Work with partners to increase the overall investment in diabetes research in the UK.
- Always seek partnership opportunities in our own funding, especially in areas of key strategic importance, so we can maximise the impact of our investment.
- Explore ways to foster international collaboration, including within our existing funding schemes.
- Work with partners outside our traditional funding focus to bring new thinking into diabetes research.

JOIN US TO END THE HARM

The next five years are critical. Now more than ever the opportunity to drive real change is at hand. We know research can bring an end to the harm done by diabetes, but only when we unite forces.

We must push to ensure people with diabetes live well and live longer. All of us can use our experiences, voices, networks and understanding to reach our vision faster. We all have a leading role. For researchers and funders; these priorities are yours. Make them a reality and change the lives of people with or at risk of diabetes.

ACKNOWLEDGEMENTS

To develop this strategy we consulted widely with the research community, funders and with people living with diabetes. We'd like to particularly thank:

The Diabetes UK Research Strategy Advisory Group

- Professor David Adams, University of Birmingham and Chair of the Diabetes UK Research Committee
- Professor Stephanie Amiel, King's College London and Chair of the Diabetes UK Science and Research Advisory Group
- Dr Karen Kennedy, University of Cambridge, Director of the Strategic Partnerships Office

The Diabetes UK Science and Research Advisory Group

- Professor Stephanie Amiel, King's College London, Chair
- Alastair Smith, Expert by Experience, Vice-Chair
- Dave Duff, Expert by Experience
- Professor Costanza Emanueli, Imperial College London
- Sarah Gibbs, Expert by Experience
- Katie Grey, Derbyshire Community Health Services NHS Foundation Trust
- Professor Andrew Hattersley, University of Exeter
- Roy Johnson, Expert by Experience
- Professor Sally Marshall, (Chair of the Leadership Panel for the Diabetes Research Steering Groups), Newcastle University
- Pat Mooney, Expert by Experience
- Maria Padfield, Surrey and Sussex NHS Healthcare Trust
- Dr Lee Roberts, University of Leeds
- Professor Martin Rutter, University of Manchester
- Professor James Shaw, Newcastle University
- Professor Nick Wareham, University of Cambridge

The Chairs and members of the Diabetes Research Steering Groups

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