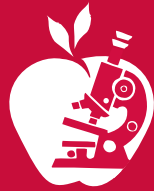


ANNUAL
REVIEW 2019



Diabetes Research &
Wellness Foundation

Staying well until a cure is found



Diabetes Research &
Wellness Foundation



Diabetes
Professional
Care™-DPC

WINNER



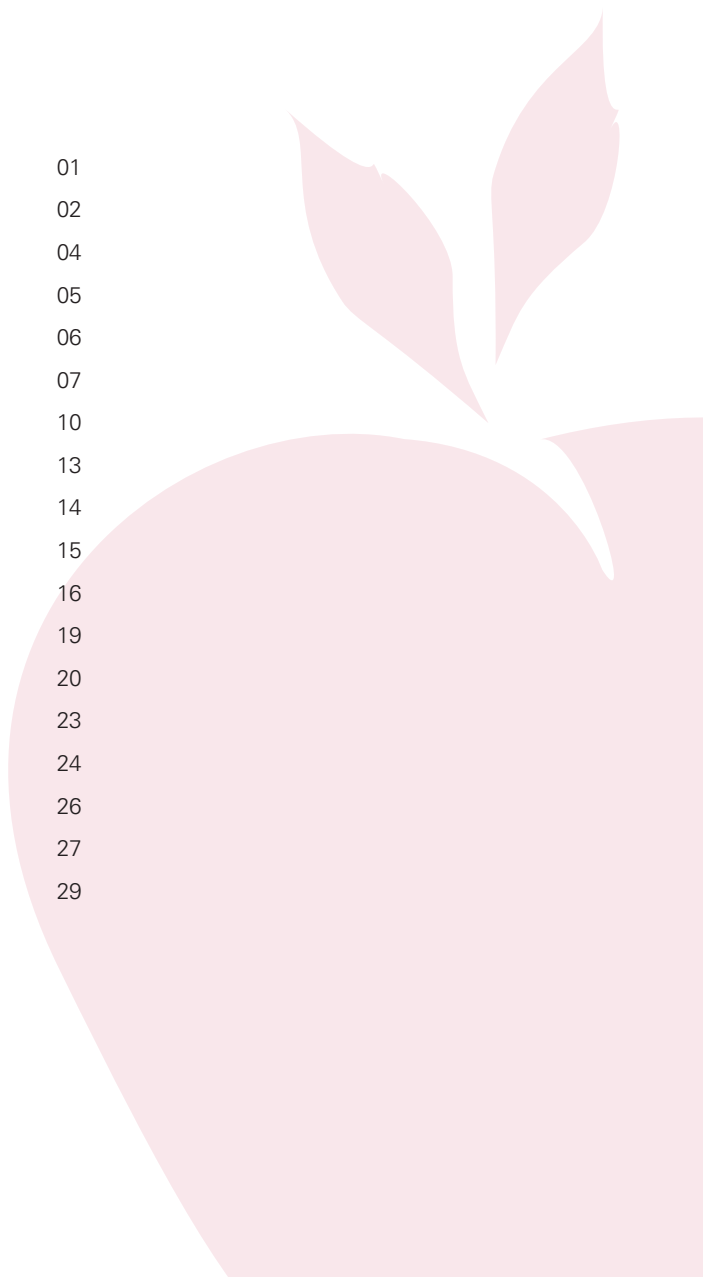


DRWF Staff and Volunteers at the Diabetes Wellness Day South

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Message from the DRWF Chairman and Chief Executive



Moving into our 21st year in 2019, it seemed appropriate that we should take time to reflect. To consider our past achievements, to learn from successes and challenges alike, and to think about new ways of working to help us build resilience and sustainability. Our focus, ultimately, to ensure that we can continue to meet the ever-changing needs of people with diabetes.

As a starting point, we reviewed the wide-ranging skills within the existing board of trustees and identified an opportunity to broaden and strengthen these. We invited interested parties to discuss this opportunity and were pleased to secure the commitment of Mr Steve Jones during the year. Steve is an executive coach, public speaker and business development consultant. He has worked with DRWF as a motivational trainer for a number of years and is eager to be more hands on in his involvement. This is the first new appointment on a rotating term of office, with the intention of further recruitment each year to support robust succession.

Very sadly, we lost a much loved and respected friend and trustee during the year. Rae-Marie Lawson became a trustee of the charity in 2013 having received two islet transplants in Oxford where she learned of the charity's commitment to the UK islet transplant programme. Rae was a wonderful ambassador for DRWF. She spoke about her life and experiences of diabetes and her transplant journey at our Wellness events, travelling around the UK and further afield as a trustee, in order to tell people about our work. We miss her and the contribution she made to the charity, very much.

We recognise the need for investment - in partnership relationships, technology and more diverse activities. We need to widen our reach of people at risk of type 2 diabetes so that they can be informed and take preventative actions where possible. We need to ensure that people living with all types of diabetes have access to our information and support programmes through multiple channels. And to ensure that we can deliver on our purpose, we need to raise more money through more diverse fundraising activities.

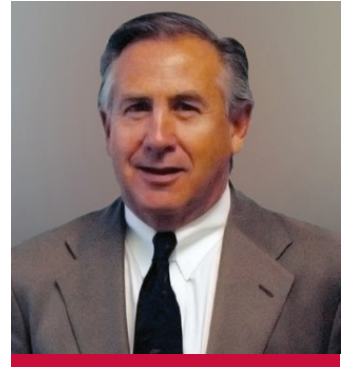
To ensure that we can achieve all of these things efficiently and effectively, we are strengthening the team with new expertise. Empowering the existing team by redistributing responsibility to ensure effective succession planning and working with external partners to review our services and ensure that we can meet more dynamic needs.

We aim to build on what we have learned in the past 20 years at a time when the numbers of people being diagnosed with diabetes worldwide, continues to escalate.

Our mission and purpose remain unchanged, to ensure that people living with all types of diabetes are **'staying well until a cure is found...'** We have made significant progress in the last 20 years because of the amazing support that we see from our donors, volunteers, partners and collaborators and to you all, we say **THANK YOU!** We couldn't do it without you.

W. Michael Gretschel
Chairman

Sarah Tutton
Chief Executive

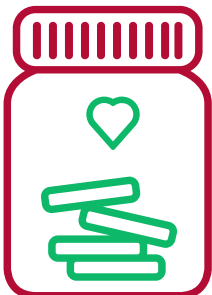



The impact of diabetes

Diabetes is a chronic, progressive disease that can have a debilitating impact on almost every aspect of life.

Type 1 diabetes cannot be prevented. It occurs when the pancreas doesn't produce any insulin and is considered to be an auto-immune response in the body.

Type 2 diabetes is considered to be largely related to lifestyle factors. It can be prevented, or at least its onset delayed, in many cases by changing diet and exercise habits.



Diabetes, its care and treatment, is reported to cost the NHS almost 10% of its annual budget which is approximately £10 billion.

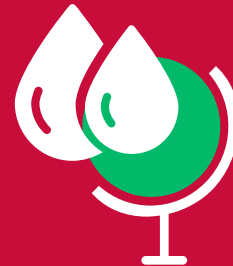
It is thought that around 80% of these costs is attributed to treating the complications of diabetes - many of which can be avoided.

One in six people in a hospital bed has diabetes. People with diabetes are twice as likely to be admitted to hospital.

The scale of the problem



Latest figures indicate that around 4.7 million people in the UK have diabetes and it is thought that around a further 1 million adults have T2 but are yet to be diagnosed. More than 5 million people in the UK could have T2 diabetes by 2025.



Diabetes is a global issue with more than 463 million adults living with the condition around the world in 2019. This is expected to reach 700 million by 2045.

Self-management is the cornerstone of diabetes care and to be effective, requires strong partnerships with health care providers and support networks.

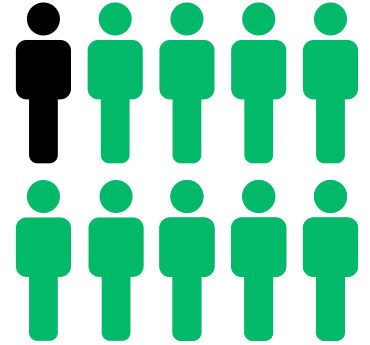
We provide the information and tools to encourage and support a proactive approach to self-care.

There are 2 main types of diabetes



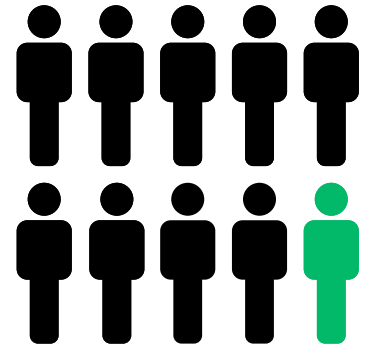
Type 1 cannot be prevented

- Type 1 diabetes accounts for around 10% of those diagnosed with diabetes in the UK

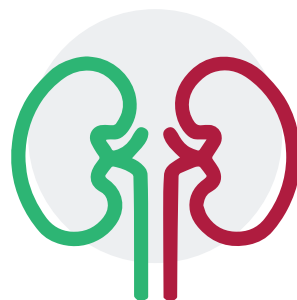


Type 2 can be prevented

- Type 2 diabetes accounts for around 90% of all those diagnosed with diabetes in the UK



🍏 More than half of all cases of Type 2 diabetes could be prevented or delayed



🍏 10,350 people in the UK have end stage kidney failure because of their diabetes



🍏 More than 1,700 people have their sight seriously affected by their diabetes every year in the UK

Rae-Marie Lawson

1951 - 2019

It is with great sadness that we announce the death of a much-loved and respected friend and Trustee, Rae-Marie Lawson, who passed away at home on 8th May 2019.

Rae-Marie Lawson joined the DRWF board in 2013 having supported the charity following islet transplantation in 2010.

A retired psychotherapist based in the West Midlands, she had lived with type 1 diabetes for more than 30 years. At the latter end of this, Rae was experiencing debilitating complications, not least hypoglycaemic unawareness, which ultimately led to her referral for islet transplantation at the Churchill Hospital, Oxford.

Following two transplants in February and October 2010, Rae's insulin requirement initially dropped by around a third, and was subsequently eliminated completely after the second transplant.

Rae was a wonderful ambassador for DRWF. She spoke about her life experiences of diabetes and her transplant journey at DRWF Wellness events, travelling around the UK, and further afield as a DRWF Trustee, in order to tell people:



"I have my independence back. I'm a different person. It's impossible to put into words. I feel really fortunate to have had this treatment and I hope one day it will be available to everyone."

DRWF Co-founder and Chairman, Mike Gretschel, said: *"Rae-Marie was an active, vibrant factor in the charity's success. She was, and is, an inspiration to any who knew the consequences of living with a chronic health condition."*

DRWF Trustee, John Alahouzos, added: *"Rae was not just a lovely person, she was a kind and refined lady, a pioneer, and willing trailblazer in supporting our efforts to find a cure for diabetes."*

She will be remembered by all at DRWF with much love, and live on in our hearts and the lasting legacy of hope her contribution has made to our work.

Trustees

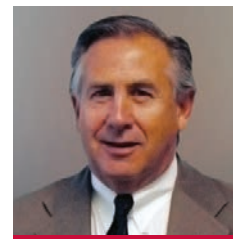
DRWF was born from a very personal connection with type 1 diabetes. Having two children diagnosed with the condition made for a commitment and dedication to the cause from Mike Gretschel and his business partner, John Alahouzos, that has never wavered and remains true to its original desire - to find a cure for diabetes.

The DRWF group was established in 1993 in the U.S. and in 1998, DRWF was incorporated and registered as a charity in the UK. Over the last 21 years we have become a recognised provider of awareness, educational support programmes and leading funder of diabetes research. The DRWF Board of Trustees are an engaged and committed group of individuals who bring a significant level of expertise to the governance of the charity in the fields of law, business strategy & management, international fundraising, psychology, healthcare and education.

Michael Gretschel

Co-Founder Chairman of the Board

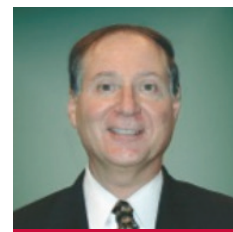
Volunteer fundraiser for diabetes research for over 30 years. Mike has a very personal interest in diabetes, with two children having Type 1. In 1993, Mike – along with others – founded the Diabetes Research & Wellness Foundation (DRWF). Since then, the DRWF International Network of charities has grown to include the Diabetes Research & Wellness Foundation (DRWF) in the UK; Association pour la recherche sur la diabete (A-rd) in France; Diabetes Wellness Network Sverige (DWNS) in Sweden and a new group just starting out in Finland. All groups work autonomously, but with the same objective, and work collaboratively on international awareness and research funding campaigns. Collectively, the groups have committed more than £55 million in awareness, education and research funding since inception.



John Alahouzos

Co-Founder Volunteer fundraiser for diabetes research since 1978

John Alahouzos is a marketing executive by profession and a volunteer for 'The Diabetes Cure' by choice. For almost 38 years he has worked alongside his friend Mike Gretschel to raise funds and awareness for the need to cure diabetes. After many years of volunteer fundraising for the Juvenile Diabetes Research Fund in the US, John, Mike and their wives founded the Diabetes Research & Wellness Foundation (DRWF) in 1993. John is the Chairman of the Board of Trustees of the Diabetes Research & Wellness Foundation in the US and serves as a trustee on the board of the Diabetes Research & Wellness Foundation in the UK, as well as their affiliates in France, Sweden, and Finland.



Jeffrey Harab

Bachelor of Arts, Juris Doctor. Attorney-at-Law, 1979

Jeff has been a member of the Board of Trustees of the Diabetes Research & Wellness Foundation (DRWF) since 2001. He is also a board member of the Association pour la recherche sur le diabete (A-rd) and is an alternate board member for Insamlingsstiftelsen Diabetes Wellness Network Sverige (DWNS). Each of these groups, along with DRWF in the UK, form part of the International Diabetes Wellness Network, and collaborate on global diabetes awareness campaigns, educational programmes and research funding initiatives.



Valerie Hussey

Retired Nurse, Musgrove Park Hospital, Taunton

Val has been a member of the Board of Trustees of DRWF since 1999. She is also an alternate board member for Insamlingsstiftelsen Diabetes Wellness Network Sverige (DWNS). Having worked as a nurse within the NHS for many years, Val has a keen interest in ensuring that people with long-term conditions have the resources available to them to self-manage their condition as effectively as possible. She is a keen supporter of the charity's educational event programme.



New Trustee

Steve Jones

Business coach, public speaker, trainer and consultant

Steve is an expert in creating ideas and strategies that build businesses, drive revenue and improve business position and performance. He has a passion for making companies and their products the best in their product category. Steve's unique understanding of leadership and management, team building and motivation in business, coupled with his understanding, drive and enthusiasm, clearly set him aside as an expert.



DRWF Fundraising:

Etienne wins 50km Ultra Marathon while raising money for diabetes research



Etienne Klotz supported DRWF as his family has been affected by diabetes - and raised £850.

Etienne, 45 of Fleet, chose to support DRWF for the gruelling 50km challenge – described as being like a normal marathon, but a lot longer (31 miles rather than 26.2 miles) – as he has close family members with the condition.

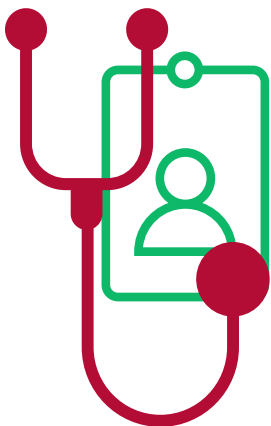
Etienne, who working as an airline pilot, has a head for heights, scaled steep climbs totalling 1,300m on the course, which he completed in 6 hours 38 minutes 16 seconds.

In addition to crossing the finish line before anyone else on the day Etienne raised £850 for DRWF.

Ahead of the challenge Etienne said:

"It will be tough, but nothing like the life of my little nephew Declan who lives in Northern Ireland. He is 11-years-old and has been diagnosed with type 1 diabetes a few years ago. He is very brave, and I know how much life has been transformed for him and his parents Geraldine and Sean, since he was diagnosed! I will therefore give all donations to DRWF.

"I also lost my aunt Marianne a few weeks ago. She had type 2 diabetes for years. So, I am collecting funds for diabetes to make sure people are more aware of this condition and how difficult it is for people living with this condition as well as their families."



- 🍎 Obesity is responsible for 80-85% of someone's risk of developing Type 2 diabetes
- 🍎 68% of men and 59% of women are overweight or obese
- 🍎 You can reduce your risk of Type 2 diabetes by healthy eating and being more active

Editorial Advisory Board

Dr Sarah Brewer

GP, Health Journalist and Specialist in Nutritional Medicine

Dr Sarah Brewer MSc (Nutr Med), MA (Cantab), MB, BChir, RNutr, MBANT qualified from Cambridge University with degrees in Natural Sciences, Medicine and Surgery. After working in general practice, she gained a master's degree in nutritional medicine from the University of Surrey. As well as being a licensed doctor, Sarah is now also a Registered Nutritionist, a Registered Nutritional Therapist and an award winning health writer. Sarah is the author of over 50 popular self-help books, including *Overcoming Diabetes* (Duncan Baird) and *Natural Approaches to Diabetes* (Piatkus). Her latest books are *Live Longer Look Younger*, and *Eat Well, Stay Well*, published by Connections. Sarah is the editor of *YourWellness* magazine www.yourwellness.com. Follow her occasional nutritional Tweets at www.twitter.com/DrSarahB.



Dr Deborah Broadbent MRCOphth, Ophthalmologist / Director of Liverpool Diabetes Eye Centre

Deborah Broadbent MB ChB (Liverpool) DRCOG (London) DO (London) MRCOphth graduated from Liverpool University in 1976 and has been working as an ophthalmologist since 1978. In conjunction with colleagues she set up the Liverpool Diabetic Eye Study in 1991 and in 1996 she became the full-time Director of the Liverpool Diabetes Eye Centre.

Over the past 20 years she has developed an expertise in the epidemiology, diagnosis and management of diabetic eye disease. She has presented original papers and been an invited speaker at both national and international meetings. In September 2002 she was appointed as the Lead in Workforce, Training and Education to the English National Screening Programme for Diabetic Retinopathy, and has worked with Skills for Health, NHSU, the National Open College Network and City and Guilds to develop National Occupational Standards in retinopathy screening and a suite of mandatory national qualifications awarded by City and Guilds for all personnel involved in the identification of sight threatening diabetic retinopathy across the UK. She was appointed as Honorary Associate Clinical Professor with Warwick University, advising on the Masters in Diabetic Retinopathy programme, in 2010, and as Honorary Senior Lecturer in the Department of Eye and Vision Science at the University of Liverpool in 2013.

She acts as a peer reviewer for ophthalmic and diabetes journals and is the Section Editor for Retinopathy in *Diabetes Digest*. She is also on the Advisory Board for the Diabetes Research and Wellness Foundation and is a trustee for The Eye Fund, a charity providing counselling support for people coming to terms with untreatable visual impairment. She continues to be actively involved in research into the epidemiology of diabetic retinopathy, screening for diabetic retinopathy and new therapies.



Andrea Cameron

Head of the School of Social and Health Sciences, Abertay University

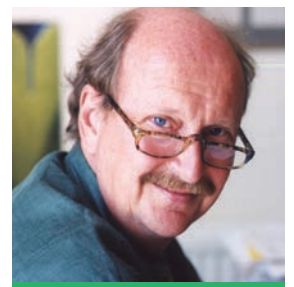
Andrea has worked in Health Care since 1982. After qualifying as a nurse she specialised in Coronary Care Nursing before becoming a Nurse Teacher. She then moved to teaching Sports Science, but remains a registered nurse and qualified exercise instructor. She has undertaken doctoral studies examining the information given to patients with Diabetes by health professionals in the primary care sector and has published in the area of volunteering and employment skills. Andrea has also run for Scotland at international veteran events, and has been a contributor for DWRWF since 2004.



Professor Edzard Ernst

Professor in Complementary Medicine, Exeter

Professor Edzard Ernst is Chair in Complementary Medicine and Director of Complementary Medicine at Peninsula Medical School in Exeter. His expertise lies in acupuncture, autogenic training, herbalism, homeopathy, massage and spinal manipulation. He has published more than 1,000 articles in peer reviewed medical literature, 500 original research papers and has written, or been editor, of more than 40 books. Edzard is Editor-in-Chief and founder of two medical journals, and sits on the editorial board for 20 other journals, including DWRWF's *Diabetes Wellness News*.



Azmina Govindji

Registered Dietitian and TV Nutritionist

Azmina is a registered dietitian, consultant nutritionist, broadcaster and best-selling author. She is director of Azmina Nutrition www.azminanutrition.com and shares daily tips at <http://on.fb.me/AzNutrition>. Azmina has written 15 books including the Gi Plan with Nina Puddefoot and The Diabetes Weight Loss Diet with Antony Worrall Thompson. She was Chief Dietitian to Diabetes UK from 1987-1995 and is currently a media spokesperson for the British Dietetic Association.



Emma Howard

Community Diabetes Lead Podiatrist, Oxford Health NHS Foundation Trust

Emma qualified with a BSC Hons Podiatry from the University of Brighton in 1997 and began working as a community podiatrist for the NHS in Shropshire. During this time she completed the Society of Chiropractors and Podiatrist Diabetic Foot Module and began working in acute diabetic foot clinics in Telford and Shrewsbury. After nearly 10 years she moved to work at Knowsley PCT on Merseyside as a Diabetes Team Leader in a community trust.

In 2009 she accepted a position for Oxford Health NHS Foundation Trust where she works as a Community Diabetes Lead Podiatrist. She specialises in the care of the diabetic foot and high risk wound care. The clinics run across community settings and within OCDEM (Oxford Centre for Diabetes, Endocrinology and Metabolism).

She has worked with DRWF since 2007 developing the foot care advice leaflet and has attended the Walking holidays and Wellness Weekends to give presentations and informal advice on foot care in diabetes.



Dr Alison Kirk

Lecturer in Physical Activity for Health, University of Strathclyde, Glasgow

Alison was appointed in January 2009 as a Lecturer in Physical activity for Health at Strathclyde University, Glasgow. She completed a BSc in Physiology and Sports Science at the University of Glasgow (1998) before undertaking a PhD through the same university (completed 2003). She was then appointed as Lecturer at Dundee University before moving to Strathclyde University. Alison currently teaches on the BSc Sport and Physical Activity degree course. She teaches various aspects of physical activity and health and clinical exercise science.

Alison's specialist research area is in behaviour change of physical activity and sedentary behaviour with emphasis towards prevention and management of chronic disease. She has particular focus towards diabetes but with past and current funded research in breast and colon cancer, respiratory and cardiovascular disease. Alison has a drive towards implementation of research findings and knowledge exchange within community and clinical practice and has worked with a number of community and clinical groups on related projects and guidelines.



Dr Alastair Leckie

MBChB DRCOG MRCGP FFOM, Consultant in Occupational Medicine, OHSAS

Alastair is a consultant in occupational medicine and director of OHSAS, an NHS based service provider for occupational health. He graduated from Edinburgh University in 1986 and initially trained and worked as a general practitioner. He trained in occupational medicine at the Institute of Occupational Medicine before moving into his current role. Alastair is involved in postgraduate training for GPs, specialist trainees, and occupational health colleagues. He is an honorary senior clinical lecturer at the University of Glasgow. He frequently sees people in his clinic with diabetes to advise them and their employer regarding any work issues or work based assistance that may be required. Alastair is currently President of the Society of Occupational Medicine.



Henrietta Mulnier**RGN MSc PhD RNT, Lead Diabetes Nurse, Royal Surrey County Hospital and Primary Care**

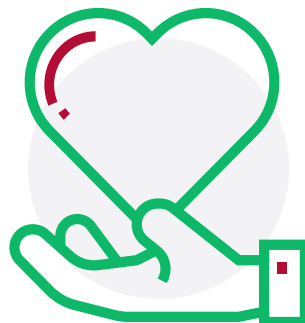
Henrietta Mulnier RGN MSc PhD is a Lecturer in Diabetes Nursing at the Florence Nightingale School of Nursing and Midwifery, King's College London. She also works clinically as an Honorary Diabetes Specialist Nurse at St Thomas' Hospital London. She has been nursing for nearly 30 years; specialising in diabetes since 1995. Having completed a Doctorate in 2008 her current focus is on research to benefit patient care for those with diabetes. Henri has published widely and is a reviewer for several journals. She is a member of the current National Institute for Health and Clinical Excellence Guidance Development Group for type 1 diabetes and is also on the editorial board for Diabetes & Primary Care.

**Dr Mayank Patel****Consultant Physician in Diabetes, University Hospital Southampton NHS Foundation Trust**

Dr Mayank Patel has worked as a Consultant Physician in Diabetes and Acute Medicine at University Hospital Southampton since 2008. Since starting as a Consultant, he has overhauled and developed the trusts adult inpatient diabetes service and worked with commissioners to bring new adult multidisciplinary insulin pump and diabetic foot services to the trust. He co-developed 'DiAppbetes', the smartphone application to help healthcare professionals manage inpatients with diabetes. He also contributes to medical undergraduate and postgraduate diabetes training, as well as regularly delivering diabetes education to patients, public and other healthcare professionals in primary and secondary care.

**Professor Philip Preshaw****Specialist in Periodontics, Visiting Professor, Newcastle University**

Philip Preshaw is Professor of Periodontology and Consultant in Restorative Dentistry at Newcastle University, UK. He received his Dental Degree from the University of Newcastle in 1991 and his PhD in 1997. He is a registered specialist in Periodontics and is a Fellow of the Royal College of Surgeons of Edinburgh. His main research interests are investigations of the pathogenesis of periodontal disease, and links between diabetes and periodontal disease. Professor Preshaw lectures frequently, and has numerous publications in peer-reviewed scientific journals. He has been awarded a UK NIHR National Clinician Scientist Fellowship, a Distinguished Scientist Award from the International Association of Dental Research, and a King James IV Professorship from the Royal College of Surgeons of Edinburgh for his contributions to research.



🍎 Every year diabetes causes more than 27,000 heart attacks and almost 100,00 cases of heart failure as well as 36,000 strokes

Awareness, information & support

The number of people diagnosed with diabetes in the UK has more than doubled in the last 20 years. There are now more than 3.8 million people diagnosed with diabetes in the UK, an increase of around 1.8 million on the numbers of people recorded in 1998. It is also believed that there could be as many as 1 million more who have diabetes, largely type 2, but have yet to be diagnosed. Add to this the estimated 12 million who are at higher risk of diabetes, and the need for greater awareness becomes ever more apparent and urgent.

The treatment of diabetes and associated complications in the UK costs the NHS around 10% of its annual spend, this is around £10 billion per year of which around 80% is spent on treating complications, which can often be avoided.

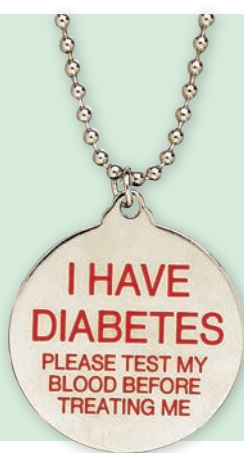
Diabetes can be successfully managed, and complications often prevented, particularly with early detection. Furthermore, diet and exercise related lifestyle changes can significantly reduce the risk of type 2 diabetes. All of which can help to reduce the debilitating impact that diabetes has on all aspects of life, as well as the overwhelming financial burden that it brings to bear on healthcare services.

To this end, we continued to raise awareness via multi-media channels with consistent messaging to differentiate between type 1 and type 2 diabetes, helping people to understand that whilst type 1 diabetes cannot be prevented, much can be done to prevent or delay the onset of type 2.

We distributed more than 439,000 direct mail campaigns in 2019 containing awareness information and calls to action. The health information contained within each campaign is targeted at beneficiaries or others who could act on the information, either in a preventative way (type 2 diabetes) or to inform and support those living with diabetes (all types), in their self-management of the condition. With a positive response from 20% of those mailed, we know that at least 85,747 people across the country read the information contained within the campaigns. We know from experience that it is likely that many more opened and read the information but chose not to make direct contact with us at that time. Historically, we have seen numbers of people respond to communications that have been distributed many months before, even years, as they have held onto the information provided for future reference.

Our awareness messages are reaching wider audiences than ever before supported by our increased provision of news and articles on our website and social media channels and via our Health Unlocked forum. This is enabling us to interact with more diverse communities where the risk and/or impact of diabetes can be higher.

We had 113,000 unique visitors to the charity's website in 2019 with 229,731 page views. This is almost double the traffic seen in 2018. Unsurprisingly, the news section which features latest diabetes updates and research advances, along with our educational events and information resources pages, are the most visited within the website. Of the visitors to the Understanding Diabetes section of the site, around 80% moved on to the Type 2 diabetes section – which fits comfortably with the statistics that around 80-90% of all people with diabetes, have type 2.



Our Diabetes Awareness Necklace is distributed free of charge to people with diabetes and healthcare professionals for onward distribution. These necklaces provide emergency identification for those with diabetes should they be unable to alert the emergency services to their condition. They carry the wording 'I have diabetes, please test my blood before treating me'. They are distributed along with medical check-up cards that are used to record tests and results to inform self-management strategies. We responded to 6718 specific requests for free necklaces during the year, with many hundreds more circulated at numerous events in the period.

*My husband has recently been diagnosed with Type 2 diabetes and suffers from cardiovascular disease, which means he could potentially collapse anywhere, anytime. We both think that your awareness necklace could prove invaluable. We want to say what a fantastic service you provide – the information on your website is very important to us. Thank you! **K&P Edington***

Type 2 Awareness & Screening Events

We worked collaboratively with colleagues from University Hospital Southampton NHS Foundation Trust, UHS Charity, BHR Pharmaceuticals, The Saints Foundation, Fasset Management and Ageas Bowl in 2019 to facilitate type 2 awareness and screening events.

🍎 St Mary's Football Stadium, Southampton - 9th February 2019

103 people screened at Southampton v Cardiff premier league football match.

5 people identified in the 'high risk' range and given referral letters to their GP for further testing.

🍎 Langstone Technology Park, Havant – 13th June 2019

106 people screened as part of a health & wellbeing at work event.

3 people identified in the 'high risk' range and given referral letters to their GP for further testing.

🍎 Ageas Bowl, Southampton - 9th August 2019

118 people screened at scheduled cricket match.

4 people identified in the 'high risk' range and given referral letters to their GP for further testing.

Dr Mayank Patel, lead Diabetes Consultant from the University Hospital Southampton NHS Foundation Trust submitted a letter of interest to Practical Diabetes, which was subsequently published in the September/October edition.



Quality in Care Diabetes - award winning Diabetes Wellness educational events



Diabetes structured education aims to provide people with diabetes with the knowledge and confidence to self-manage a long-term condition effectively. The offer of structured education has improved over more recent years. However, the rates of attendance are still very low and disparate across the country. Self-management is central to diabetes care. Yet, it is reported that high numbers of people with diabetes experience emotional or psychological problems, such as depression, anxiety and diabetes distress, all of which can impact the ability and motivation to self-

manage effectively. This leads to poorer health outcomes, reduced quality of life and increased healthcare costs. Being able to access appropriate psychological support is an integral part of self-management.

We have been running an annual programme of Diabetes Wellness events since 2001. We work with diabetes, and related, healthcare professionals to facilitate workshops that provide relevant, up-to-date, evidence-based information covering all aspects of diabetes and related health. Delegates choose the sessions and talks that they attend meaning that they create their own agenda for the day, improving engagement and supporting better outcomes. These events bring together a wealth of information and expertise under one roof.

The event programme is devised and delivered by experts and offers rotating workshops that focus on the day-to-day management of diabetes and the prevention and management of associated complications. An exhibition hall provides a central hub where delegates can access a range of support from primary, secondary and community organisations.

We know that managing diabetes is challenging and effective coping strategies are crucial to support optimal health. These coping strategies are important not just to people living with diabetes but their family, friends and carers. Peer support plays an important part in emotional wellbeing and this in turn can have an obvious impact on the ability to self-manage effectively. For this reason, we feel it is important to include family, friends and carers in workshops and discussions which facilitates discussion around managing diabetes, perceptions and expectations, in an environment where everyone has experienced or is experiencing something similar. These events are relaxed and welcoming in approach. They are inclusive and provide for diverse needs. They also provide an amazing opportunity to spend time with a whole host of health care professionals asking the questions that really matter to the individual, in a relaxed and informal environment.



"Learning about diabetes at these events is contributing significantly towards my improved health and wellbeing".

We held three Diabetes Wellness Days in 2019

- Diabetes Wellness Day South - 184 delegates / 30 exhibitors / 7 speakers / 6 rotating talks
- Diabetes Wellness Day Midlands - 84 delegates / 20 exhibitors / 6 speakers / 5 workshops
- Diabetes Wellness Day North East - 86 delegates / 20 exhibitors / 3 facilitators/ 3 workshops

There was an increase of 45% in delegate numbers at the Midlands and North East events.

Report from the first Diabetes Wellness Family Camp for young people with type 1 diabetes

DRWF joined forces with Over The Wall - a charity offering free therapeutic recreation camps for children and young people living with serious health conditions - to launch the first Diabetes Wellness Family Camp.

DRWF funded the first Diabetes Wellness Family camp in partnership with Over The Wall, specifically for families with children with type 1 diabetes aged from birth to 17.

The weekend camp was held at Liddington PGL in Wiltshire, in June and was attended by 21 families and 77 individual campers.

Memorable, fun and empowering

Allan Jolly, Head of Partnerships and Evaluation at Over The Wall, reported on the first collaborative Family Camp: *“Overall the camp was extremely successful and there was universal appreciation and praise from parents and campers.”*

“We were delighted to announce this exciting partnership with DRWF, a diabetes charity with aims that match our vision that all children and young people, living with the challenges of serious illness and disability, can access transformational therapeutic recreation camp programmes, free of charge.”

“We strive to make each camp a memorable, fun and empowering experience. All in a physically and medically safe environment.”

The camp was a welcome addition to DRWF’s existing award-winning diabetes wellness event programme. The charity received the Judges’ Special Award and Highly Commended in the Empowering People with Diabetes category, at the annual Quality in Care Diabetes Awards in 2017.

Sarah Tutton, DRWF Chief Executive, said: *“We have demonstrated the beneficial outcomes for people living with diabetes to attend one of our educational events and we are delighted to launch this new partnership with Over The Wall to offer a new event for families with children living with type 1 diabetes.”*

“The weekend allowed some respite for parents and siblings, as Over The Wall has full time staff, and volunteers running all the activities the camp has to offer. So, parents, guardians and siblings could relax and enjoy their weekend knowing the children and young people were all looked after. It also allowed friendships to develop between families, who often feel isolated, which we know last long after the event.”

A new sense of abilities

It is currently estimated there are around 29,000 children in the UK living with type 1 diabetes. For these young people, quality of life can be adversely affected by isolation and their inability to participate in many of the everyday activities enjoyed by their friends and peers. This often results in a growing lack of self-esteem and confidence which can become a barrier to future growth and development.

Over The Wall’s residential programmes (rated outstanding by Ofsted), are designed to bring about transformational change, helping young people with long-term conditions to tackle these issues.

DRWF and Over The Wall worked together to bring this opportunity specifically to families with children with type 1 diabetes in the hope that young campers return home with a new sense of their abilities and ambitions and feeling far less isolated. Thanks to the generosity of DRWF supporters we gave 20 children living with type 1 diabetes and their families the experience of a residential camp at no cost to them.



Matt Lloyd, father of Josh Lloyd, gave us his thoughts

We approached the weekend with open eyes, as this was our first Diabetic camp, we just didn’t know what to expect. I finished work early on the Friday and picked Josh up from school, he was his usual bubbly self, and I still had work on my mind... we were met at reception by our helper, Steve, who showed us to our room and guided us to the main dining hall for our evening meal and to meet the other families. After a hearty evening meal, the room erupted into song, which took me by surprise...Was this normal I asked myself, Josh seems to take it in his stride and loved it instantly! I joined in best I could, feeling self-conscious. I was more at home when the parents went to ‘the grown-ups meeting’ leaving the kids, for the first time, in the hands of our helpers.

From that first evening and over the course of the weekend, I relaxed, Josh embraced every second of it. We kept trying to have 5 mins to ourselves to play cards in the room, but there just wasn’t time. Another knock on the door by Steve reminded us, it was time for the activities. These activities were; abseiling, climbing, giant swing and archery. To be honest I was as keen, if not more so, than the kids to get started... yes, the memories of work were long gone and I was living in the moment, enjoying time with my son, creating memories.

Another hearty evening meal was much needed and this time I was prepared to join in with a song, should it be thrust upon me. I could almost say I was relaxed.

But what had the weekend really done for us? Did we know more about Diabetes? No. Were we closer to controlling highs and lows which are constantly on our minds? No. But we did know we are not alone with this disability. We have the support of people around us. And have memories which will last forever.



Workplace screening reveals hidden threat of type 2 diabetes



Staff from DRWF and BHR testing volunteers at Langstone Technology Park

Hundreds of people in Hampshire likely remain undiagnosed with type 2 diabetes could face serious future health risks.

DRWF Staff carried out a workplace screening exercise which demonstrated that many people are unaware that they are at risk of developing type 2 diabetes and the associated health risks,

We ran the event at Langstone Technology Park on Thursday, 13th June during National Diabetes Week and tested dozens of volunteers from the 59 organisations based there. It was part of the established on-site health and safety forum wellness programme.

DRWF is working in partnership with BHR Pharmaceuticals Limited - who provided the BHR A1CNOW+ HbA1c Blood Testing System and the staff to administer the test. It is a portable system which allows healthcare professionals to provide individuals with an indicator of average blood glucose control for the past two to three months. It measures the amount of blood glucose in millimoles per mole (mmol/mol).

The ranges used were:

- 🍎 Normal - 42mmol/mol or lower
- 🍎 Indicator of pre-diabetes - 43-47mmol/mol
- 🍎 Indicator of diabetes - 48mmol/mol

Out of 87 people tested, five recorded readings in the 43-47 range.

DRWF and BHR provided support for these people and a letter to take to their GP for more tests.

Sarah Tutton, DRWF Chief Executive, said: *"We were very pleased to be invited to offer a workplace screening event today with BHR. It allows people to have a quick and fairly painless test, which can flag any issues with their long-term blood glucose readings."*

"We know early type 2 diabetes intervention can make a huge difference to future health. We have robust protocols in place to manage people's reactions to the test and to provide ongoing diabetes help and support through our NHS Standard Accredited information, website and events programme."

Chris Hill, of Fasset Langstone property and facilities management company, said:

"The health and safety forum meet every six months and we were delighted to support this activity with DRWF. We know a fit and healthy workforce makes for a happier and more productive company and we are keen to support all our tenants which range from call centres, laboratories, recruiters, charities and software designers to improve their well-being."



The BHR A1CNOW+ HbA1c Blood Testing System gives an indicator of average blood glucose control for the past two to three months



Prof Kathleen Gillespie – University of Bristol



Prof Calum Sutherland – University of Dundee



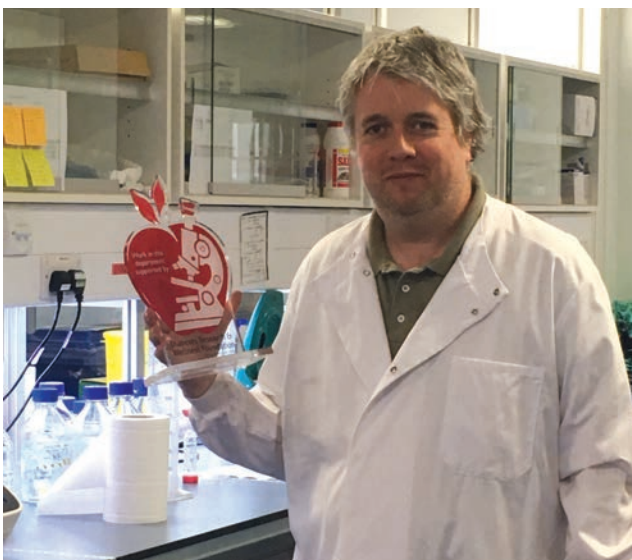
Dr Rajna Golubic – University of Cambridge



Prof Gwyn Gould – University of Strathclyde



Dr Matthew Johnson – University of Exeter



Dr Mark Russell – University of Exeter

Research Advisory Board

Our Research Advisory Board comprises experts in a wide variety of research disciplines to ensure that all applications are assessed knowledgeably and fairly. As a member of the Association of Medical Research Charities we are committed to maintaining a rigorous peer review process for the assessment of research applications, for which the Advisory Board are responsible. This process ensures that only the highest quality research at the best institutions receives DRWF funding. When we are awarding a DRWF Fellowship, we are also intent on rewarding determined and committed individuals who have a proven track record in diabetes research and can display an intention to continue working in the field. It is our hope that a DRWF Fellowship can serve as a significant and fruitful step in the career of a bright, young and ambitious researcher.

Chairman - Professor David R Matthews, MA, DPhil, BM, BCh, FRCP

Professor of Diabetes Medicine, University of Oxford. Medical Tutor and Vice Principal at Harris Manchester College, Oxford. Emeritus founding chairman of the Oxford Centre for Diabetes, Endocrinology and Metabolism. David's interests include mathematical modelling of insulin resistance, homeostatic model assessment of beta-cell function and insulin resistance. He is the author of the HOMA model; has a long-standing interest in new therapeutic agents for type 2 diabetes, and was a co-investigator of the UKPDS. A founding trustee of the Oxford Health Alliance, he was the first Executive Director of the Global Alliance for Chronic Disease; a world-wide association of six research councils collaborating in the fight against Chronic Disease. He is Co-Director of the UK Diabetes Research Network; has over 230 publications and is on the editorial boards of several professional journals.



Dr. Ian Salt PhD

Senior Lecturer at the Institute of Cardiovascular & Medical Sciences, University of Glasgow
 Ian graduated as a biochemist at the University of Bristol prior to gaining his PhD in beta-cell biochemistry from the University of Dundee in 1997. He held fellowships from the British Heart Foundation and Diabetes UK before taking up his current academic post at the University of Glasgow. Ian is currently a senior lecturer in the Institute of Cardiovascular and Medical Sciences at the University of Glasgow. His principal research interests are the molecular mechanisms that link diabetes, insulin resistance and the risk of developing cardiovascular disease.



Dr Rob Andrews

Rob Andrews is an associate Professor of Diabetes and Endocrinology at the University of Exeter and an Honorary Consultant Physician at Musgrove Park Hospital Taunton.

At the University he leads a group that researches the role that exercise and diet can play in the prevention and management of Diabetes. Ongoing studies include the long term effects of diet and diet and exercise interventions in patients with newly diagnosed Type 2 Diabetes (ACTID follow up); the role that sedentary time has in the metabolic characteristics of patients with Type 2 diabetes (STAMP 2); how exercise can affect beta cell function in Type 1 diabetes (EXTOD). He is also leading a project that aims to develop and pilot an education programme for patients with Type 1 Diabetes and health care professionals to guide insulin and carbohydrate adjustment for safe and effective exercise.

At Musgrove park hospital as well as doing regular Diabetes and Endocrine clinics he runs specialist adult, adolescent and paediatric sports clinics to give advice to sports men, women and children who have Type 1 diabetes.



Professor Angela Shore

Professor Angela Shore is the inaugural Vice-Dean Research for the University of Exeter Medical School, and was previously Interim Vice-Dean Research for the Peninsula College of Medicine and Dentistry since 2009. She is the Scientific Director of the NIHR Exeter Clinical Research Facility for Experimental Medicine and Associate Director for Experimental Medicine for the UKCRN diabetes research network.

Professor Shore graduated in Physiology from the University of Newcastle and was awarded her PhD for an investigation of the vascular mechanisms underlying fluid homeostasis in patients with Liver Disease. Following postdoctoral positions at the University of London where she expanded her research into the vascular aspects of hypertension, Professor Shore moved to the Postgraduate Medical School Exeter in 1987 to establish the clinical microvascular research unit funded by the Wellcome Trust. Currently Professor Shore's work which is funded by the British Heart Foundation, Diabetes UK, European Union IMI JU and NIHR investigates novel approaches to the identification of early vascular complications and patient stratification for cardiovascular risk.

She was appointed Professor of Cardiovascular Science in 2000.



Professor Peter Jones

Peter Jones is Professor of Endocrine Biology in the Diabetes Research Group at the Guy's campus of King's College London. Peter obtained his PhD at the National Institute for Medical Research (London) studying peptide hormones in the central nervous system. He started working on beta-cell function in diabetes as a postdoctoral fellow at Queen Elizabeth College in 1984. He was awarded an R.D. Lawrence Fellowship by the British Diabetic Association, followed by a Medical Research Council Senior Research Fellowship, after which he took up an academic position as Lecturer in Physiology at King's. He was awarded the British Diabetic Association R.D. Lawrence Lecture for 1997 and the Diabetes UK Dorothy Hodgkin Lecture for 2015 in recognition of his work on beta-cell function. His research interests remain with the beta-cell, with current focus on cell-cell interactions within islets of Langerhans, strategies for improving islet transplantation therapy for Type 1 diabetes and novel therapeutic targets for Type 2 diabetes.



Professor James Shaw

James Shaw is Professor of Regenerative Medicine for Diabetes at Newcastle University and Honorary Physician at the Newcastle Diabetes Centre and Freeman Hospital.

Following PhD completion as an MRC fellow with Kevin Docherty exploring gene and cell replacement therapy for diabetes, a Glaxo-Smith-Kline Senior Fellowship enabled him to move to Newcastle and join the world-acclaimed diabetes team there.

In addition to setting up a translational research laboratory he has established a regional insulin pump service, is a member of the Newcastle pancreas transplant team and clinical lead for islet transplantation.

He is Chief Investigator for the multicentre Diabetes UK-funded HypoCOMPASS RCT comparing optimised insulin analogue with pump therapy and conventional with continuous glucose monitoring in type 1 diabetes complicated by impaired awareness of hypoglycaemia. He led the successful United Kingdom Islet Transplant Consortium bid for dedicated NHS funding of this intervention as an established clinical procedure in 2008. This has underpinned a further multicentre Diabetes UK grant to prospectively evaluate biomedical / psychosocial outcomes in all UK islet recipients; and most recently participation in an international RCT evaluating the potential of a novel anti-inflammatory agent to maximise engrafted islet mass post-transplantation

His laboratory group is exploring mechanisms underlying loss of beta-cell mass and function in diabetes in addition to further innovations in islet transplantation. Potentially reversible beta-cell dedifferentiation as a common mechanism underlying beta-cell dysfunction in type 1, type 2 and cystic fibrosis-related diabetes in addition to post-transplantation is becoming a major focus, facilitated by recent Strategic Research Centre funding from the CF Trust. Progress has been considerably accelerated by inauguration of the Newcastle University Islet Isolation and Innovation Hub providing dedicated access to clinical grade research islet preparations.



Dr Mark Evans

Mark Evans is a University Lecturer in the Institute of Metabolic Science and Department of Medicine, University of Cambridge and an Honorary Consultant Physician in Medicine and diabetes at the Addenbrookes teaching hospital in Cambridge (Cambridge University Hospitals NHS FT).

He qualified in Medicine at St Bartholomews Hospital in 1988 and then subsequently worked and trained as a junior doctor at a number of hospitals in London and South East. He completed an MD at University of London and then spent 3 years at Yale University in USA (1999 to 2002) in the laboratory of Professor Robert Sherwin before returning to his current UK post in 2002.

His particular interests are in type 1 diabetes, structured education, devices and technology including insulin pumps, continuous glucose monitors and automated insulin delivery, hypoglycaemia and brain nutrient sensing.

**Dr Angus Jones**

Angus is a NIHR Clinician Scientist at the University of Exeter and an Honorary Consultant Physician in the Royal Devon and Exeter Hospital. His research focuses on clinical questions directly relevant to the management of diabetes. Interests include developing a stratified (or personalised) approach to the management of Type 2 diabetes, diabetes classification and the assessment of endogenous insulin secretion (C-peptide) in the clinical management of diabetes. He trained in medicine in London and worked as a clinician in London, Southampton, Malawi and Southwest England before undertaking an NIHR Doctoral Research Fellowship with Professor Andrew Hattersley in Exeter from 2011 to 2014. He received an NIHR Clinician Scientist Fellowship in 2016 to investigate and integrate biomarkers and clinical features for diabetes classification in adults, research that is using a combination of existing datasets, electronic healthcare records and prospective studies to develop a fully validated prediction model (clinical calculator) for diabetes classification at diagnosis. He was awarded the Diabetes UK Type 2 Diabetes Research Prize in both 2014 and 2015 and a European Foundation for the Study of Diabetes Rising Star Award in 2016.



Connecting with the community through business

Working with companies who share the same vision as us has many benefits, enabling us to increase our visibility, awareness of our work, and engage with wider organisational networks. This in turn supports our fundraising activities, helps us recruit essential volunteers, and provides some additional income to support our aims and objectives. We know that selecting the right partner to work with is vitally important for both parties, to ensure that we are aligned in our thinking and desire to make a difference for people with diabetes, maximising the positive impact that the relationship can have for all. This is just one way in which we are diversifying our activities and relationships to protect the delivery of our programmes. Beneficiaries and supporters can rest assured that we have all of the right policy, risk assessment processes and agreements in place to support these relationships, to minimise any perception of bias and to ensure that we get maximum benefit for future investment into our research funding and support programmes.



Research Funding



We provide research grants to researchers whose work we consider offers the best hope and most expedient path to improved understanding of type 1 and type 2 diabetes; new and improved treatments and management strategies and ultimately a cure.

Awards are offered as a 3-year Clinical and Non-Clinical Fellowship and 1-year Pump Priming project awards. Institutional awards are available when funds allow on a multi-year basis. Contract funding of key personnel within the DRWF Human Islet Isolation Facility at the Churchill Hospital, Oxford is subject to proposal and review on a 1-3 year rolling contract basis.

We are a member of the Association of Medical Research Charities (AMRC), and as such, support the use of a rigorous peer review procedure in the allocation of our research funding. Our Research Advisory Board (RAB) is a multi-disciplinary panel of expert clinicians and scientists who assess applications for funding. Our processes are audited every 5 years by AMRC, the last time being 2015, when once again, we successfully passed this independent evaluation.

Islet Cell Research & Transplant



DRWF has made a considerable contribution to the funding of islet cell research and transplant in the UK and the US. The DRWF Human Islet Isolation Facility at Churchill Hospital, Oxford plays a pivotal role in providing islets for research and transplant as part of a national treatment programme, the clinical element of which is funded by the NHS.

Three personnel are funded within the facility. In 2015, we secured funding from a major donor via New Philanthropy Capital to cover 2 of these contracts, the Laboratory Manager and the Post-Doc researcher for 3 years (2018) and 2 years (2017) respectively, for a specific proposal **'Improving human islet provision for clinical and research use within the UK by optimisation of human islet yield, islet function and islet survival'**

This project continues to deliver world-leading outcomes in terms of post-transplant resolution of life-threatening hypoglycaemia, and in terms of research productivity and translational impact. The provision of high-quality human islets for clinical and research uses is a unique and invaluable resource and has resulted in numerous high impact publications and novel discoveries that will impact patients with type 1 and type 2 diabetes across the world.

The team publishes their research findings regularly and present their work at the major diabetes and transplantation meetings.

The Oxford team is working to address the current challenges presented in terms of availability of organs for transplant; improving islet isolation techniques in order to increase the number of insulin producing cells isolated from donor organs to improve function and survival of cells post-transplant.

DRWF continues to fund three personnel within the islet isolation facility.



Prof Paul Johnson, Mrs Sarah Tutton and Dr Steve Hughes

Two calls for applications were issued in 2019:**2019 Sutherland-Earl Clinical Fellowship**

Eight pre-applications were received, with four being asked to submit full proposals. Three candidates were invited to interview. The RAB subsequently agreed that they could not identify a project which was worthy of financial support at this time, resulting in a recommendation to the Board of Trustees that there should not be an allocation of funding for this Fellowship, on this occasion.

Pump Priming 2020 (awarded in 2019 – payable in 2020)

31 applications received, and 6 awards made.

Six research awards made totalling **£117,219**

2019 Research Grant Awards



Institution: University of Dundee

Recipient: Professor Calum Sutherland

Project: An investigation of insulin receptor biology to improve our understanding of the development of insulin resistance and Type 2 diabetes

Amount: £19,693



**University
of Dundee**

Summary: Insulin does not work properly in people with Type 2 diabetes (T2D). This 'insulin resistance' occurs even before T2D diagnosis. Insulin is detected by a receptor on the cell surface. The receptor is like a lock, and insulin is the key, that triggers the cell to take up glucose and store it properly. We want to understand why this lock and key system goes wrong, leading to T2D. We have found that the receptor gets cut in two by an enzyme called BACE1 (which is high in people with T2D). Therefore, BACE1 inhibitors could be used to help insulin work better. However other work suggests that splitting the receptor may be a normal part of how insulin works. We propose to change BACE1 in liver and brain cells and measure insulin action. This information will establish whether BACE1 inhibitors would help, or cause problems for, people with T2D.

Institution: University of Exeter

Recipient: Dr Mark Russell

Project: Is mitochondrial STAT3 a novel regulator of insulin secretion?

Amount: £20,000



Summary: STAT3 is a molecule that controls the levels of specific genes in cells. However, recently, a form of STAT3 was discovered which has a different function - modifying energy production by changing the activity of the cell's power generators known as mitochondria. This may be important for beta-cells of the pancreas, since increases in energy production are essential for their ability to produce insulin (a hormone important for blood glucose control). In this project we will use genetic-engineering to create beta-cells which have one of two different versions of STAT3: either a variant which prefers to move to the mitochondria or one which is unable to. We will then use state-of-the-art technology to assess whether energy generation and insulin production changes in these cells. If successful, data generated from this study may help in the design of novel drugs that could increase insulin production in people with diabetes.

Institution: University of Strathclyde
Recipient: Professor Gwyn Gould
Project: A yeast-based screen for novel regulators of GLUT4 trafficking
Amount: £19,926



Summary: It's insulin that mainly regulates glucose levels in our blood. It gets glucose into fat and muscle cells where the glucose is stored until blood sugar levels fall. It does this by increasing the number of specialised 'glucose transporter' proteins on the cell surface. It moves these glucose transporters from a storage depot inside the cell to the cell surface. This process doesn't work so well if you have Type 2 diabetes. Not enough is known about what controls this movement of transporters - and this is holding back the development of an effective therapy. Our group has used brewer's yeast as tool to identify a new control mechanism used by fat and muscle to regulate glucose transporters. We will use this to find out new details about how insulin works.

Institution: University of Cambridge
Recipient: Dr Rajna Golubic
Project: 5HT2C receptor agonism to lower blood glucose. Proof of concept in humans
Amount: £20,000



Summary: Despite many advances in the treatment of diabetes, relatively few people are able to achieve optimal glucose levels to reduce risk of complications. In our proposed study, we will examine the potential for a new approach to lowering blood glucose. Lorcaserin is a drug currently used for weight loss and acts on brain pathways that regulate appetite. In mice, we found that in addition to altering body weight, lorcaserin lowers blood glucose by acting on brain pathways to regulate the liver and perhaps pancreas. This glucose lowering effect of lorcaserin has not been studied in humans yet and we aim to do so. If ultimately proven effective, lorcaserin or similar treatments could potentially be used in diabetes (including those treated with insulin as an "add on" treatment) to improve glucose levels and reduce the risk of complications and substantial healthcare costs associated with this.

Institution: University of Bristol
Recipient: Professor Kathleen Gillespie
Project: Does a leaky gut increase risk of diabetes in children with Down's syndrome?
Amount: £18,000



Summary: Children with Down's syndrome who have one extra copy of chromosome 21 are four times more likely to develop type 1 diabetes than children from the general population. In addition, when they do develop the condition, it appears to happen earlier in life. Like individuals with type 1 diabetes, children with Down's syndrome are also at increased risk of gut and thyroid autoimmunity. We have recruited 99 babies to date with Down's syndrome to investigate early life experiences in detail. We have also collected a wide bank of samples for analysis. In this application, we ask for funds to allow us to test whether a leaky gut predicts onset of diabetes in children with Down's syndrome.

Institution: University of Exeter
Recipient: Dr Matthew Johnson
Project: Novel genetic insights into autoimmune diabetes
Amount: £19,600



Summary: We do not fully understand how destruction (autoimmunity) of the insulin-producing cells in the pancreas develops in Type 1 Diabetes (T1D). A condition that is very similar to T1D, and much easier to study, is monogenic autoimmune diabetes that is caused by a single letter change (a mutation) in an individual's DNA. Studying patients with monogenic diabetes will provide new insights into how insulin-producing cells are destroyed which will increase understanding of T1D. We will use a powerful genetic technique (genome sequencing) to find the single letter change that is causing destruction of the insulin-producing cells in individuals with suspected monogenic autoimmune diabetes providing a genetic diagnosis to the families. Furthermore, these findings will identify new biological pathways that are responsible for the development of autoimmunity that will have important implications for patients with more common type 1 diabetes.

The DiRECT study: Working in the real world?

A low calorie diet could help people put type 2 diabetes into remission, but as Professor Steve Bain, Consultant Diabetologist and Clinical Lead for the Diabetes Research Network, Wales explained, it is not quite as easy to introduce in practice.

Reversing type 2 diabetes

The *Diabetes Remission Clinical Trial (DiRECT)* study is the biggest study ever funded by Diabetes UK and it was spawned by a small study of only 11 people with type 2 diabetes back in 2011 which demonstrated that, after just one week on a restricted diet of just 600 calories per day both beta cell function and insulin sensitivity could be normalised. The media furore that followed raised hopes that type 2 diabetes could be “cured”.

To ascertain if type 2 diabetes could, indeed, be “cured”, a larger study tracking almost 300 patients who had had a diagnosis of type 2 diabetes in the past six years was set up. This DiRECT study randomly assigned half of the patients to continue to take their prescribed diabetes drugs and to receive conventional weight loss advice. The other half were told to stop taking all prescribed medications and, instead, to eat a low-calorie diet for five months.

This diet was nutritionally balanced and consisted of shakes or soups containing no more than around 850 calories a day. This group was also given intensive guidance on how to reintroduce a normal diet gradually and tailored to the individual over two to eight weeks. The study was delivered through GP practices in Scotland and in the Tyneside region of north England.

A diabetes “cure” success story

Once again, the results were met by much acclaim across the media who branded it the most successful way to cure diabetes.

Websites promoting low calorie diets sprung up across the internet and, whilst the researchers have clearly demonstrated that a diet of just 800 calories per day can put type 2 diabetes into remission - but certainly **not** cure it - questions remain about whether this can be rolled out successfully and on a large-scale into primary care practice. This remains one of the most hotly debated and contentious areas. However, many believe that the study’s results can succeed on a larger platform.

Study on a wider scale

In November 2018, NHS England announced that, buoyed by the successes of the DiRECT trial, it would be funding a much larger-scale study, this time of up to 5,000 people.

The 9-month long programme of very low calorie, liquid diets aims to help people to achieve a healthy weight, to improve their overall nutrition and to increase levels of physical activity and it will run in parallel with the on-going Diabetes Prevention Programme.

But can this kind of intervention work in the real world, away from the lens of a clinical trial and the increased interaction with healthcare professionals that can often catalyse change?

Voices of concern have been raised about how applicable this kind of diet is for people with type 2 diabetes who are not enrolled into a clinical trial.

Some detractors are in the form of side effects reported by those who have actually tried an 800 calorie a day diet. These range from nausea and fatigue to more serious issues like gallstones thanks to the liver secreting extra cholesterol as the result of losing weight too quickly. This, in turn, can result in a build-up of too much cholesterol in the bile, which can lead to the formation of gallstones.



Understanding a balanced diet

Of course, there is the more general applicability of encouraging people not within the safe confines of a clinical trial to adopt this kind of diet when increased food intake continues to be a societal issue. We live in an environment where highly caloric food is instantly accessible and where an understanding of balanced, nutritional diets and the dangers of obesity are sorely lacking.

Professor Steve Bain, Consultant Diabetologist and Clinical Lead for the Diabetes Research Network, Wales, felt that being on an 800 calorie a day diet may not be so easy to do without a lot of help and support.

Professor Bain said: “The success of the DiRECT study was, at least in part, down to the extra nurse- and dietitian-led help, advice and structured education that was offered in each of the participating practises involved in the trial.

“Sadly, this is not the kind of help that is routinely available in already stretched practises and, on a day-to-day basis, it would be hard to implement this kind of diet-led intervention simply because we don’t have the resources to do it.

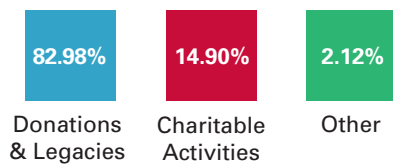
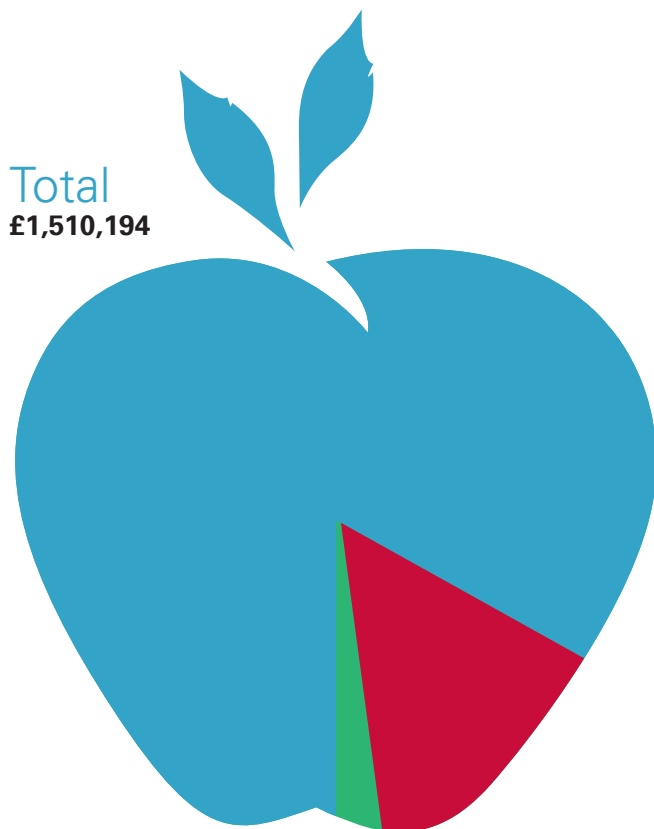
“We know that some people really struggle to adapt to and to stick to this kind of diet and, without dedicated help, this could be much more difficult to implement on a large scale than we realise simply because the average GP surgery is just not equipped for this. Finally, we also need to see that the benefits seen in the DiRECT Study are long-lived - the data published thus far are only for 12 months.”

Article by DRWF Research Manager Dr Eleanor Kennedy and originally published in April 2019 issue of Diabetes Wellness News.

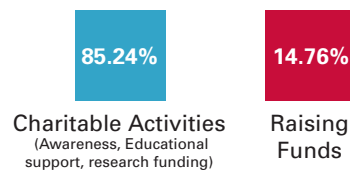
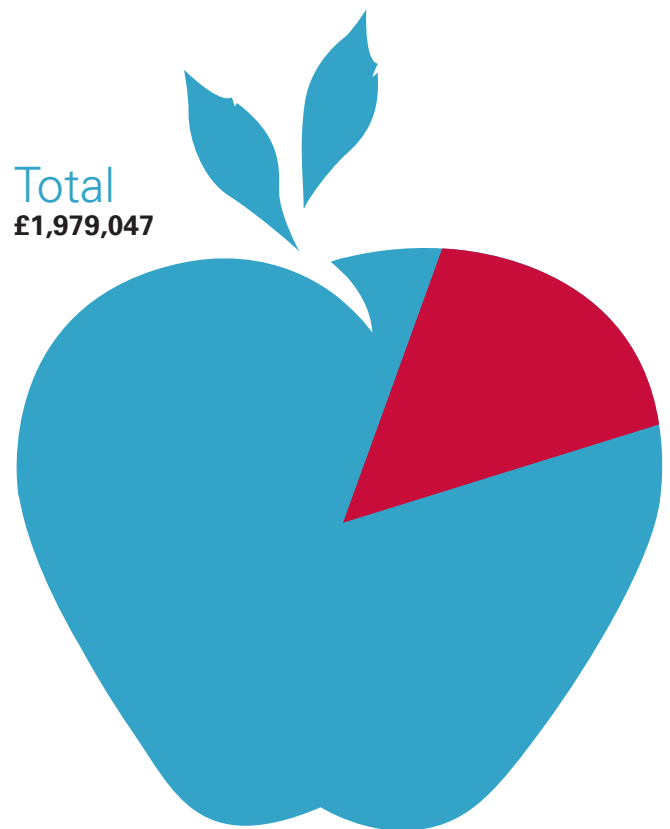
Income: Expenditure Profile 2019

The information presented here is not the full statutory accounts but a summary of the information which appears in the full accounts for financial year ending 2019. This summary information may not contain sufficient information to allow for a full understanding of the financial affairs of the Diabetes Research & Wellness Foundation (DRWF). The full statutory accounts can be supplied on request or accessed via the Charity Commission website by entering the charity registration number 1070607 in the search box.

Income



Expenditure



Highlights from 2019



Neil Wimbridge - Skydive
£1093.25

(including £200 match funding from his work Great Western Railway)



Carrie Watkins - Cardiff half Marathon
£300



Will Jones - Prudential RideLondon100
£680



Max Matt Mike - London Vitality 10k
£517

(Max Green, Matthew Lamb and Mike Koenig)

Romantic Bollywood music night raises **£1,000**



From Left to Right: Jason Wouhra, Parijat De, Jas Wouhra, Lee Calladine, Parvinder Singh, Inderpaul Wouhra

Bollywood singer Jas Wouhra launched his latest song at a St Valentines concert event in support of DRWF.

The Bollywood-themed St Valentines Day event in aid of DRWF in Birmingham raised £1,000 for the charity.

Bollywood singer Jas Wouhra headed up the musical lineup with the release of the video for his latest single, 'Dil Nu Peeda De Gaya,' at South and City College in February.

The event was hosted by East End Foods and included food, song and dance which was enjoyed immensely by all who attended.

Karen Scott, DRWF Community Fundraiser, said: "We were delighted to be chosen as the charity to benefit from this Valentines Day romantic event. A colourful and lively evening attended by approximately 300 fabulous people. There were some amazing dancers, beautiful sari dresses, tasty food and romantic music, all hosted by Jas Wouhra. The other artists performing on the night were Reema Chavda, Sazia Judge, Sonu Chand, Sumitra, Parijat and Echo International."

DRWF held a successful raffle with some great prizes being given out on the night to the lucky winners.

Karen added: "This was a very successful event for DRWF as we managed to speak with many people there who told us how diabetes affected their lives. We are looking forward to keeping in touch with some of them through our Diabetes Wellness Day Midlands. East End Foods plc presented DRWF with a cheque of £1000. With no government funding, this donation will help the charity to continue to hold these awareness days for the local community."



Fundraising News

Get involved

We receive **no income** from the Government and rely largely on voluntary donations, so every penny you raise really will help us make a difference. Over 85% of monies spent in 2019 was directly invested into our charitable work, making us an extremely efficient and cost-effective charity.

We hope that lives of millions of people in the future will be dramatically improved thanks to our work today - but we know, **we couldn't do this, without you!**

Fundraising Opportunities

Whether you want to run a marathon, jump from a plane at 15,000ft, hold a pub quiz, take part in one of our national fundraising campaigns, or even shave off your beloved beard! We have something for everyone, and our fundraising team are ready to support you every step of the way!

Whether you're a first timer or a regular fundraiser, everybody needs a little inspiration:



Feeling brave and energetic – Let our challenges inspire you!

- Simplyheath Great South Run
- Prudential RideLondon-Surrey 100
- Abseil
- Skydive
- Vitality London 10k

Interested, but not quite the thrill for you - we have many more running, walking, cycling and adrenaline challenges available!



For fundraising related volunteering, please contact our Community Fundraiser, Karen Scott, on **02392 637808** or email fundraising@drwf.org.uk.

For general charity related volunteering, please contact our Office Manager, Steve Lille on **02392 637808** or email steve.lille@drwf.org.uk.

Ways to Donate

We rely solely on voluntary income. If you would like to make a donation to support our work, you can do so, in a variety of ways.

Cheque or Charities Aid Foundation (CAF)

Cheques and CAF Cheques **payable to 'DRWF'**, Building 6000, Langstone Technology Park, Havant, PO6 1SA

Debit / Credit Card

If you would like to donate via your Debit or Credit Card, our friendly team will happy assist with that - please just give them a call on **02392 637808** and have your card to hand.

Direct Debit

Become a 'Partner for the Cure' and set up a regular monthly / quarterly or annual donation directly from your bank account. You can set this up by **visiting www.drwf.org.uk/donate** or by calling **02392 637808**.

Online

Make your one-off donation through our secure DRWF payment gateway - simply visit **www.drwf.org.uk/donate** and follow the on-screen instructions.



Tim Green, Head of Community Fundraising

*every penny counts!
Thank you for your support.
Tim*

2019 Charitable Trusts and Grants Received

We are very grateful to the charitable trusts and foundations who have so generously invested in the DRWF, facilitating the expansion and continued development of our education and research programmes.

The Joseph and Mary Hiley Trust
Widows & Orphans Association
The Thomas C Maconochie Trust
The Tonge Family Trust Fund
D S Cohen Charitable Trust

The Coulthurst Trust
Catherine Cookson Charitable Trust
Foundation Scotland
Osberton Trust
Stern Family Charitable Trust



Legacies received in 2019

Legacies are vital to every charity as they provide the bedrock financial support we rely upon to look ahead and progress effectively. Leaving a 'Legacy of Hope' enables DRWF to continue supporting leading researchers and those living with diabetes.

John Ashley

John Aylin

Edith Bennett

Margaret Bishop

Ann Buncher

Franz Busettil

Sheila Clark

Rashid Domingo MBE

Catherine Ford

Elizabeth Gourlay

David Grewar

Dorothy Hall

Dennis Hayes

Peter Hughes

Leslie Keeler

Nina Leach

Betty Lines

Kathleen McCormick

Marjorie Pearson

Lillian Poole

Brian Roff

Victor Southon

Peter Spear

Alice Walker

Ruth Wilkinson

Gifts given in memory of a loved one

Donations given in memoriam are a positive way of celebrating the life of someone special and help DRWF continue with their long-term mission - to find a cure for diabetes. Giving 'in memory' is a distinctive way to remember and honour family and friends. In 2019, those who have supported us in the past were remembered in this special way.

Charles Banks	Phillipa Harvey	Alan Parkinson
David Barnes	David Henderson	Henry Petto
Alan Blackford	Marian Hughes	Olga Pope
Maureen Burn	Lance Hunter	David Seary
Margaret Cairns	Gillian Jones	Ramrati Singh
Carol Calladine	Rae-Marie Lawson	Les Spilman
John Cannan	Frank Lloyd	Emily Stephens
Raymond Chandler	Barbara MacLeod	Susan Stewart
Doreen Clerk	Chrystalla McEvoy	Philip Stone
Blanche Cordeiro	Marianne	Arwyn Williams
Gail Daruvala	Jackie Melvin	Barbara Wright
John Davies	Harry Mills	Martin Wright
Sheila Dawson	Bill Morgans	Rosalie Wyatt
Nellie Gibson	Joe Palmer	
Jane Harvey	Vinette Parfitt	

Our work is made possible only through our supporters' commitment and generosity for which we say a heartfelt **THANK YOU!**

Our focus in 2020 and beyond

- Succession planning for the trustee board and organisational structure to build resilience for the future
- Sustainability - income diversification via new fundraising methods; review of existing activities for cost effectiveness and purposeful delivery of objectives; identify new opportunities for both income generation and growth/development of objective activities
- Evaluation and development of objective activities to ensure that they maximise opportunity for engagement and accessibility whilst continuing to meet the ever-changing needs of our beneficiaries and stakeholders
- Partnership and collaboration - forming relationships with like-minded partners, where there is a synergy in mission, vision and values, to enable us to maximise opportunity to benefit people with diabetes



DRWF Staff help local environmental charity The Final Straw Solent on a clean-up around Langstone Harbour.

Through our awareness raising, information provision and educational support programmes, we enable people with Type 1 and Type 2 diabetes to learn more about their condition. We provide the tools to motivate, empower and engage people to take a positive approach to their self-care. Through supported self-management they can reduce the risk of associated complications, improve quality of life and control their diabetes effectively.

Don't let diabetes control you!

We fund some of the best and brightest diabetes researchers in the UK and around the world. We support Fellowships, Open Funding Projects, Institutional grants and Studentships. We fund peer-reviewed work that we believe will help us to understand the causes; find new treatments; provide insight into effective therapies and management strategies and ultimately, find a cure for diabetes.

You help us to achieve these objectives -

THANK YOU!

to find out more...

Diabetes Research & Wellness Foundation,
Building 6000, Langstone Technology Park,
Havant, PO9 1SA



www.drwf.org.uk

Registered Charity in England & Wales,
Registration no: 1070607
Company no: 03496304
Company Limited by Guarantee

Statistics/ Figures stated correct at FYE 2019



Diabetes Research & Wellness Foundation