



## Record of Partner Charity Grants ©

| Charity   | Priority Area  | About the Charity  |
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| <p><u>Institute in the Park</u></p> <p><u>Liverpool UK</u></p>  | <p><b>Saving Lives &amp; Health Care</b></p> <p>research into childhood auto-immune/ inflammatory disorders.</p> | <p>The Institute in the Park is the home of International Centre for Children's Research, Innovation and Education based on the same campus as Alder Hey Children's Hospital in Liverpool. It is dedicated to researching children illnesses with the aim of managing and understanding the diseases better. It harnesses these aims with education and improved techniques which will lead to improved outcomes. This institute is a cutting edge institution collaborating internationally to advance paediatric medical care.</p> |

| Date      | Grant   | Grant Description   |
|-----------|---------|---|
| 01-Jul-24 | £13,773 | <p>This grant was to purchase an ELISA (enzyme linked immunosorbent assay) plate washer. Measuring and quantifying inflammatory proteins in fluids (blood and cell culture media) is the most common analysis across the workstreams accessing the Institute in the Park's laboratory space. Standardising all experimental steps, including washes, improves the reproducibility of experiments and quality of data, whilst reducing time taken, and in turn increases impact for patients. ELISA is a method for detecting and quantifying a specific protein in a complex mixture. The ELISA Washer allows the plates used in the process to be washed in an automated system which is faster and more reliable than a manual process, significantly decreasing the amount of variation in analyses making things like lower concentration biomarkers easier to detect and more reliable.</p> <p>This is our sixth grant bringing the total to £90,000</p> |

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| 01-Aug-23 | £15,705 | <p>This grant is typical of the support we give where core equipment is not funded from major research funders or the public sector.</p> <p>The work performed in the research facilities is dependent on the collection and safe storage of samples from children and young people, including (but not limited to) blood, skin, airway epithelia, etc. Safe storage of samples can only be guaranteed in <math>-80^{\circ}\text{C}</math> or even <math>-153^{\circ}\text{C}</math> freezers. Currently, storage space in the <math>-80^{\circ}\text{C}</math> freezers is limited, and two of their freezers come to the end of their life cycle. This piece of equipment will support research across childhood disease areas and ensure safe long-term storage of irreplicable biosamples. This is our fifth grant and brings the total to over £75,000.</p>  |
| 01-Jul-22 | £14,475 | <p>Our grant will fund a real-time (RT) PCR system which will allow researchers to quantify the level of gene expression in various tissues and cells. This is essential for identifying and quantifying altered functions of cells and tissues in childhood disease. RT-PCR is a robust tool that can be used also in clinical settings, which therefore makes it particularly interesting for biomarker development. It will also detect gene variants through DNA screening. Gene variants contribute to altered gene expression in a multitude of childhood diseases. This is our fourth grant to the Institute making a total of £60,000.</p>  |
| 01-Jul-21 | £19,861 | <p>This is our third grant to Institute in the Park, a Partner Charity, underpinning our long term relationship. This grant covers the cost of an imaging system called a ChemiDoc and associated accessories. The ChemiDoc is a gel documentation system delivering high resolution and high quality images of both nucleic acids and protein gels. It would produce reliable, high quality data and enhance current investigations into the role certain genes play in the development and progression of autoimmune diseases in children. The equipment would transform the ability to bioengineer regions of DNA to test their contribution to human disease, for example in juvenile systemic lupus erythematosus. Target identification and functional testing are first and essential steps towards understanding disease mechanisms and introducing new individualised treatments. The ChemiDoc system would help find disease and outcome-specific molecular defects to improve the lives of children with systemic autoimmune/inflammatory disease.</p> |

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| 01-Jul-19 | £13,717 | <p>This is our second grant to Institute in the Park underpinning our long term relationship with them in supporting the vital research into childhood illnesses. Our grant covers the cost of a 4D Nucleofactor platform from Lonza. This system will facilitate an area of research that is currently unavailable within the laboratory. It will enable studies into gene function, gene regulation and how this may lead to the expression and activity of certain proteins that the genes code for. This technology will therefore enhance our current investigations into the role certain genes play in the development and progression of autoimmune diseases in children. It would also benefit the lab based research projects being carried out as part of the Experimental Arthritis Treatment Centre for Children . Working in the laboratory (and therefore would have access to this technology) are six postdoctoral Scientists, two research technicians, two PhD students and two MRes students.</p> |
| 24-Oct-16 | £11,931 | <p>Our grant will purchase a ThermoFisher Scientific EVOS XL Cell Imaging System. This kit is cutting edge microscope technology which will aid three main research groups currently focusing on:</p> <ul style="list-style-type: none"> <li>Ø Juvenile systemic lupus erythematosus (JSLE) and childhood arthritis</li> <li>Ø Respiratory disease (chest infection cystic fibrosis and asthma); and</li> <li>Ø Childhood leukaemia</li> </ul> <p>The trustees are excited by this work and hope that this will project will lead to a long and fruitful relationship with the Institute.</p>   |

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| <p><a href="#">Stockdales</a><br/><a href="#">Sale Cheshire</a><br/><a href="#">M33 5AH</a></p>  | <p><b>Helping People in Need</b></p> <p><b>supporting people with learning and other disabilities</b></p> | <p>Stockdales provides person centred care and support for the welfare of children and adults with learning disabilities and multiple physical disabilities living in the Trafford area of Manchester. It is dedicated to making a difference to the lives of people with learning disabilities and complex health needs. The charity offers residential care to 25 people with high needs round the clock to live like everyone else at home and beyond. Our community services support over 150 people through activity sessions, days out and clubs for kids and adults. There is a strong focus on learning, social time and being as independent as possible. Our services also are an invaluable lifeline to families too, offering much needed respite.</p> |

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|-----------|---------|--|
| 17-Jul-24 | £10,638 | <p>Sensory equipment and sustainable outdoor furniture was needed at Stockdales Navigation Road house in Sale. This included calming cocoons, piano sound pads, Nordic tactile disks, giant sensory colour bubble tube, fibre optic rings, body rocker, digital cloud, sensory lightup glow collection, sensory mood light pebbles, vibrating pillows, slab bearbags, jumbo water channelling chute, 5 sets of tables and chairs.</p> <p>People with learning disabilities often experience challenges introducing new sensory equipment will contribute to the overall development, well-being of people, and improves quality of life.</p> <p>Disabled adults and children who attend the Community Services Group and Childrens' club at the Navigation Road centre.</p> <p>Our grant covered the cost.</p> |
| 06-May-23 | £15,000 | <p>This is our second main grant to Stockdales.</p> <p>A key objective of Stockdales is to provide suitably adapted quality homes which together with care and support will result in people challenged by disability to be able to live independent lives. The Ashton Lane house in Sale is being updated and an outdoor garden room added. This will give residents and their family and friends a garden space to enjoy in all weathers. Being close to nature is an important part of improving their quality of life. The area will have wheel chair access plus tracking and hoists so residents can enjoy the space out of their wheel chairs.</p> <p>Success of this initiative will mean that similar projects can be rolled out at other homes. The next will be the Hayling Garden Project.</p>     |

21-Oct-20

£13,145

Jo Parry, a trustee, volunteered as a teenager with Stockdales and she decided to approach the charity to explore how we could help.

Residential care is a key objective of the charity to give people a home with the necessary support so they can live independent lives. A new project to convert a house Sale is underway and the Foundation is funding specialist equipment including a reclining side entry bath, shower and shower trolley. The fitting out of bathroom facilities that are designed for the disabled is vital.

We are excited by working with Stockdales and are focused on building a long term relationship with them.

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| <p><u>Alder Hey Children's Charity</u></p> <p><u>Liverpool UK</u></p>  | <p><b>Saving Lives &amp; Health Care</b></p> <p>children's hospital</p> | <p>Alder Hey Children's Hospital is a Partner Charity.</p> <p>The needs of Alder Hey Children's Hospital cannot be fully met by the NHS and there is much additional equipment which is funded by charitable giving. This modern hospital and its staff deliver a quality service to sick children together with the vital support to their families. Alder Hey Children's Charity raises money to fund life-saving medical equipment, pioneering research and high-quality family facilities that make patient experience at Alder Hey Children's Hospital the best it can be. Our target beneficiaries are the young patients we care for and their families. Our patients range in ages from 0-21 years of age, and whilst the majority (70%) of our patients come from the North West, we are a national hospital and treat patients from across the UK and occasionally internationally.</p> |

| Date      | Grant   | Grant Description   |
|-----------|---------|---|
| 18-Nov-24 | £9,974  | <p>When a child's heart stops beating, or when they develop a life-threatening arrhythmia, every second counts. For every minute a child spends in cardiac arrest without access to a defibrillator, the survival rate drops by 10%. Our grant funds the purchase of two state of the art defibrillators which come equipped with rapid power-on and shock delivery; this means that they can be turned on and used within 5 seconds. They also include post-event analysis, accurately assessing the depth and rate of compressions. These insights are invaluable for the resuscitation teams and help in training clinicians. Defibrillators are used across the hospital but particularly in the Emergency Department. This equipment saves lives.</p> <p>Our sixth grant brings the total to nearly £63,000.</p>   |
| 20-Aug-23 | £10,500 | <p>The grant is to purchase two NAVA modules that will extend the capability of Servo-U Ventilators. This is part of a programme that will cost c. £600k and provide 15 ventilators.</p> <p>The new Servo-U Ventilators will have a huge impact on our ability to provide personalised ventilation and NAVA will be key to supporting this transformative approach. Rather than being triggered by a patient's physical breath response, NAVA responds at a neural level, to electrical activity in the diaphragm muscle. This provides more accurate breathing support and increases 'synchrony' between a patient's spontaneous breaths and the ventilator. Because NAVA does not rely on detection of breath, this allows for looser-fitting masks, improving patient comfort and sleep quality and minimising complications, such as pressure sores.</p> <p>This is our fifth grant and brings the total to nearly £53,000.</p> |

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| 01-Jun-22 | £16,044 | <p>Sunflower House is the inpatient unit within Alder Hey's new Mental Health Hub which has cost over £20m and will be fully operational by Sep 2022. It will care for children aged 5-13 who present with some of the most complex and enduring mental health and sensory conditions which cannot be safely managed in their own communities. The Therapy Garden will be a multi-use outdoor space which will support the delivery of a wide range of therapeutic activities. The garden is divided into four zones dedicated to - relaxing, playing, learning and growing (youth-led gardening projects). Our grant is funding the learning zone. This is our fourth grant to Alder Hey making a total exceeding £42,000.</p>  |
| 02-Jun-20 | £7,144  | <p>The lockdown triggered by the Covid-19 pandemic challenged the way services at Alder Hey could be delivered. Imaginative solutions were found that clearly had long term application. One such wide sweeping innovation is the Digital Outpatients Service enabling the hospital to offer a wonderful and highly efficient service. We agreed to fund eight laptops needed by their rheumatology department to deliver a Digital Outpatients Service. This kit provides key clinicians in the department with the capacity to deliver virtual support to patients through and beyond the COVID-19 pandemic. Digital services will extend the geographical coverage and help many parents and their children in more remote areas. This is another grant to Alder Hey Children's Hospital Charity, one of our Partner Charities.</p> |
| 07-Dec-18 | £7,096  | <p>Our grant will purchase a Thermocare heated cot. Alder Hey estimates that each heated cot will benefit approximately 30 neonatal patients each year. In addition, the families of these patients will also benefit through the improved care of their children.</p> <p>Neonatal patients and their families will benefit through the optimal care environment that they create in:</p> <ol style="list-style-type: none"> <li>1. Nurturing early parental bonds</li> <li>2. Making the hospital experience less intimidating</li> <li>3. Supporting families to make the transition from hospital to home</li> </ol>  |
| 12-Aug-15 | £12,000 | <p>The Foundation's grant will cover the cost of two single occupancy bedrooms in the long-term ventilation ward which treats children with severe mobility challenges. Equipment in the bedroom includes specialised technology, state of the art patient bed, domestic furnishings and a parent bed for stay overs for mum and dad. The trustees consider such quality facilities to be essential in caring for our children.</p>  |

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| <p><u>University of Derby</u></p>  | <p><b>Saving Lives &amp; Health Care</b></p> <p><b>research into Alzheimers Disease</b></p> <p><b>Specialist laboratory equipment</b></p> | <p>University of Derby has an enviable record for research. It has put in place a research capability focusing on biomedical sciences. Professor Myra Conway has been recruited to lead research into dementia and Alzheimers disease. This is an exciting development and there is a strong commitment to deliver great research that will have a practical application in tackling the corrosive impact of Alzheimers.</p> <p>The research focuses on understanding the underlying pathology of Alzheimer's disease and identification of novel markers of disease pathology.</p> <p>A new research facility is planned at Derby and more laboratory equipment will be needed over the next five to ten years in particular.</p> |

| Date      | Grant   | Grant Description  |
|-----------|---------|--|
| 16-Jul-24 | £10,704 | <p>A key research workstream is about targeting autophagy pathway in Alzheimer's disease and evaluate how diet can regulate and influence the toxic products.</p> <p>Two pieces of equipment were needed. Bespoke incubator to grow cell models. Using other incubators led to cells becoming infected The new equipment has other benefits such as CO2 regulation. An orbital shaker which allows for a smooth continuous motion for uniform mixing, ensuring consistency and uniformity when blots are treated with antibodies. This ensures that the quality of the blots will be improved.</p> <p>Our grant covered the cost of these two important pieces of equipment.</p>   |
| 21-Jul-23 | £5,712  | <p>Our grant will fund a bespoke state-of-the-art incubator to grow cell models. Cells models can get infected because the facilities are shared. The provision of a bespoke incubator ensures that only our cell models will be grown in this incubator. Quality and integrity will move to a much higher level.</p> <p>Proteins extracted from these cells that change in response to our tests agents will generate key data sets that inform on pathways changed in these AD models.</p> <p>The second vital piece of equipment is the orbital shaker, which allows for a smooth continuous motion for uniform mixing, ensuring consistency and uniformity when blots are treated with antibodies. This ensures that the quality of the blots will be improved.</p> <p>This is our fourth grant bringing the total to over £35,000.</p> <p>Our grant is in memory of Mrs Bridget Parry</p> |



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| 23-Sep-22 | £10,419 | <p>Over recent years the Foudation has built a strong relationship with Professor Myra Conway and her team and their research into Alzheimers disease. When she was given the opportunity to set up such a research facility at Derby we confirmed our backing.</p> <p>Our grant will fund Western Blot system equipment which will have a significant impact in 1. time efficiency 2.general quality of data 3 multiple users and 4 quantitative nature of data improved acroos major workstreams of the programme. Over the next few years we hope to make further grants to enable more important equipment to be acquired.</p> <p>Our grant is in memory of Mrs Bridget Parry</p>  |
| 08-Jun-21 | £12,164 | <p>Our grant will meet the cost of specialist laboratory equipment critical to their research project focused on a mechanism called autophagy shown to be dysregulated in some disease conditions including Alzheimer's (AD). Brain cells use the autophagy mechanism for maintenance (i.e. cell survival, cell growth and in early development of the brain). It is a recycling system, where some items can be recycled whilst others no longer needed are discarded. Recycling is increased when the cell is nutrient deprived or under functional stress, conditions found in AD. Understanding this process is key because in AD there is probably a fault in this system and may give rise to these conditions rather than be a consequence. A faulty recycling system would lead to a build-up of badly recycled material, known as the tangles and plaques that are seen in AD. This project has identified a key metabolic protein called BCAT that regulates the recycling system of autophagy and that BCAT is increased in AD. It aims to better understand the stages at which this mechanism is regulated and how nutrient load can control it. With Prof Alan Morgan, University of Liverpool, a novel worm model to investigate how the level of BCAT affects protein aggregation and neurodegeneration will be developed.</p> <p>Our grant is in memory of Mrs Bridget Parry.</p> |

23-Jul-19

£6,434

Our grant will fund replacement of critical laboratory equipment needed for a dementia research project "Understanding the metabolic link between type II diabetes and Alzheimer's disease" led by Myra Conway, Professor in Biomedical Science at UWE. The research has identified a group of proteins that are involved in a mechanism that helps clear abnormal material that build up in the brain tissue of people with Alzheimer's disease. It might be possible to regulate these proteins through changes in diet which could slow down or delay Alzheimer's disease. Recent studies have shown that people with type 2 diabetes have a 50:50 risk of developing Alzheimer's disease but the mechanism that connects the two conditions is not known. Improving our understanding of how diabetes can increase the risk of developing Alzheimer's disease could lead to more effective treatments.

Our grant is in memory of Mrs Bridget Parry.