

Grants Bulletin

Issue 4

Inside this issue:

Patient support grants awarded..... 1
 How ACT funding makes a difference..... 2
 Research grants awarded..... 4
 Equipment grants awarded..... 4
 All grants awarded this period..... 6
 Forthcoming application dates..... 7
 How the grants process works..... 8

This issue's grants in numbers

- 25 grants were made in total, to the value of £703,424.

Of these:

- 10 patient support projects - totalling £238,320
- 7 research projects - totalling £74,135
- 9 pieces of equipment - totalling £390,969

Welcome to our latest bulletin: Addenbrooke's Charitable Trust (ACT) supports the work of Cambridge University Hospitals NHS Foundation Trust (CUH), which runs Addenbrooke's and the Rosie hospitals. We raise funds for additional and exceptional services, facilities and research.

In addition to raising money for specific appeals, we manage the hospitals' charitable funds. We award grants using a transparent procedure to ensure donations are spent in accordance with supporters' wishes, to the greatest benefit of patients, their families and those who support them.

With this bulletin we demonstrate the breadth and value of the initiatives and equipment which our kind donors make possible. Our Grants Committee meets every three months and a full list of initiatives supported at the 6 November 2013 and 5 February 2014 meetings appears on page 6, alongside more information on how the grants process works.



Patient support grants awarded

Accessible picture menus

Background: It is well established that patients who eat well are likely to get better faster. However, the hospital menu, while packed with essential nutritional information, had become difficult to read and the accompanying photographs did little to whet the appetite. People with language difficulties or cognitive impairments found it difficult to make their meal choices and ran the risk of going hungry.

The application: This application was driven by speech and language therapy staff keen to develop a new engaging picture menu which would suit all patients' needs and aid patient choice.

High quality photographs, clearly portraying the meal options available will help patients with learning disabilities, poor language skills, dementia or disorientation following treatment to choose their meals in a dignified and accessible way.

The application was to cover the cost of design and photography.

Comment from the committee: "This is an excellent project which clearly highlights how ACT directly supports patients."

Grant applicant: Debbie Stanton.

Amount awarded: £23,600 from ACT's unrestricted funds, on the understanding that the hospital will meet the print costs from resources held for this project.

Radio Addenbrooke's

Background: The Radio Addenbrooke's studio has been located in the hospital basement for the past 20 years, but was facing a number of accessibility and operational issues, which meant that it needed updating.

The application: Structural changes were required to make the space compliant with Disability Discrimination Act legislation and to better meet fire regulations. The team had been forced to decline offers of help purely due to accessibility issues, and had to turn away volunteers with motorised wheelchairs as the space was simply too cramped.

Comment from the committee: "We are happy to make this award for this much-appreciated service. It improves the environment for all the volunteers who give their time to support patients in this way."

Grants applicant: Richard Saunders.

Amount awarded: £15,000 from ACT's unrestricted funds on the understanding that the hospital will match-fund this amount.

Petals counselling service

Background: Every year, sadly over 12,000 parents in the UK are grief-stricken by the tragic loss of their babies. Many more suffer

miscarriage of their pregnancy. Some need help to cope with this trauma as well as support should they try for another baby.

The application: Petals is a charity that provides counselling for individuals and couples affected by stillbirth, miscarriage and trauma related to pregnancy loss and birth, and a grant was requested to make this specialist service available to patients at Addenbrooke's and the Rosie.

Specifically, the team wanted funds to:

- deliver up to six, free specialist counselling sessions per client
- provide data collection to evidence the demographic of clients attending and conduct formal psychological assessment and evaluation to evidence benefits of intervention
- define the psychotherapeutic model of counselling practice in perinatal/neonatal care.

Comment from the committee: "This is a very worthwhile service."

Grant applicant: Karen Burgess.

Amount awarded: £10,000 from ACT's unrestricted funds, with a further £10,000 matched from Rosie unrestricted funds.

How ACT funding makes a difference



Amelia Grant

Amelia Grant suffered a stillbirth but, with help and support, she found the strength to continue to grow her family.

Amelia became pregnant with her second child in 2011. She received lots of support from the consultants and midwives at the Rosie. At 38 weeks, she was attending one of many additional monitoring appointments and after informing the midwives that she had been concerned about not feeling much movement, she was scanned and told that there was no fetal heartbeat.

Due to the late stage of the pregnancy Amelia had to be induced to give birth to her baby.

Three days later, on 9 August 2012, Amelia gave birth to her baby daughter, Isabelle Neve Grant. "She looked absolutely perfect" says Amelia. "Everyone at the Rosie was fantastic and we had some precious time with our baby in privacy. We were also able to have a blessing and a naming ceremony for Isabelle, and those moments meant a lot to me and Ben."

However, Amelia found that the grief became too difficult and she was referred for counselling.

"This helped a great deal. I feel counselling has been paramount in helping me gain strength, and given me a little more understanding into what we suffered as a family as well as what I went through as a mother", says Amelia.

Amelia became pregnant again in November 2012 and her third pregnancy proved very stressful. "Obviously we were pleased when we found out I was pregnant again but I wish I could have enjoyed the pregnancy a little more. I was so petrified after everything we had been through. I continued my sessions with Petals and it was great to have someone who understood all my fears and concerns."

In July 2013 Amelia gave birth to her healthy daughter Esme. Amelia says: "I have made such progress and I am so thankful to have had access to this brilliant service. I hope that by sharing my story I can help other families who have suffered a similar trauma and I see this as an opportunity to pay tribute in memory to our beautiful Isabelle."

ACT's funding enables Petals to take forward this successful pilot project.



Testing for low blood sugar

Point of care testing to measure babies' blood sugar levels

Background: Low blood sugar levels are common in babies after birth. This may be normal as they can use other sources of energy. However, if a baby does not produce these fuels, their brains can be starved of energy and become damaged. However, measurement of these fuels is not routinely conducted as part of clinical practice in newborns.

The research: The applicants want to establish whether, when babies' blood is tested for clinical purposes using point of care meters, blood sugar levels can be examined at the same time. They particularly want to see how effective these 'on the spot' measurements are, compared with the laboratory testing. If accurate, these meters could help identify more babies at risk of brain damage.

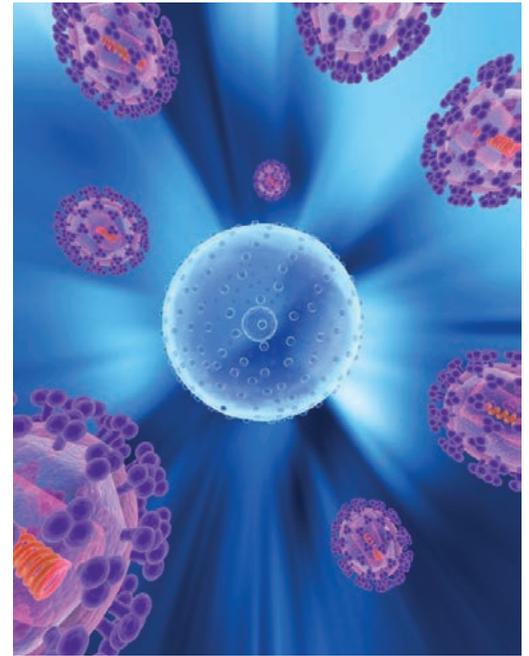
The researchers plan to test 50 babies. The amount requested relates to nursing costs, as the meters have already been purchased.

Comment from the committee: "We are happy to support this interesting, clinically defined project".

Research title: Validation of the use of Point of Care Technology to measure ketone and lactate levels in the newborn at risk of hypoglycaemia due to impaired perinatal counter regulation.

Grant applicants: Dr Kathy Beardsall, Dr B Salgin and Miss P Peirce.

Amount awarded: £6,650 from ACT's unrestricted funds.



Understanding why cell proteins are targeted by HIV

Understanding the HIV virus

Background: Cells use surface proteins to sense and respond to other cells and their environment. For example, they may be used to signal the presence of viral infection inside the cell. When viruses infect cells, they alter the levels of these proteins at the cell surface to help them replicate better and to evade the immune response.

The human immunodeficiency virus (HIV) infects more than 30m people worldwide and causes almost 2m AIDS-related deaths each year.

The research: The awardee will use a recently-developed technique to identify cell proteins targeted by HIV. An understanding of why and how HIV chooses these targets will help ascertain how the virus replicates and causes disease.

In the future, there may be opportunities to develop new therapies directed towards cell surface proteins present at different levels on infected and uninfected cells.

Comment from the committee: "We are supportive of this application from a former ACT research fellowship recipient."

Research title: Plasma membrane profiling of HIV-infected CD4+ T cells.

Grant applicant: Dr Nicholas Matheson.

Amount awarded: £6,854 from ACT's unrestricted funds, with a further 50% matched funding from the NIHR Cambridge Biomedical Research Centre.

Research grants awarded

Making transplants last longer

Background: The majority of heart and lung transplants fail from a poorly understood process, termed chronic rejection, which is characterised by the development of progressive chronic allograft vasculopathy (CAV) - a narrowing of blood vessels in the transplanted heart.

Details about the biological mechanisms which cause chronic rejection are sketchy. Several factors are known to contribute to the development of CAV including newly occurring (de novo) autoimmunity that develops against recipients' self-proteins and which has increasingly been described in clinical transplantation. However, it is not known whether autoantibodies directly contribute to the development of CAV.

The research: This award contributes to and extends an ongoing study to compare the autoantibody profile between heart and lung transplant recipients that have stable

and good graft function several years after transplantation with recipients who have developed CAV. This will determine the relationship between de novo autoantibodies and chronic rejection and whether specific autoantibodies could be used as biomarkers to monitor for the development of CAV. If transplants can be made to last longer, then overall patient survival will be improved.

Comment from the committee: "This well thought through proposal builds on an established collaboration with Papworth Hospital, providing an excellent opportunity to define the mechanisms involved in chronic rejection in transplant recipients."

Research title: Evaluation of humoral responses in cardiothoracic transplant recipients

Grant applicant: Mr Gavin Pettigrew

Amount awarded: £10,000 from ACT's unrestricted funds.

Equipment grants awarded

Two compact ultrasound systems for intensive care

Background: Bedside ultrasonography has been recognised for some years as a key technique in critical care for both diagnosis and to facilitate safe practice of high risk procedures.

Many of these situations are urgent or emergencies and rapid access to imaging and intervention can be best provided if the ultrasound imaging is done by the intensive care team, rather than relying on other staff.

Accordingly, it is becoming increasingly common for intensive care physicians to acquire the skills that enable them to perform their own studies, using equipment dedicated to intensive care, and to care for patients who are often rapidly deteriorating.

Competency frameworks have been established for training, but Addenbrooke's has so far not been able to offer this training or service, in large part due to the lack of suitable



Enabling diagnostic ultrasound and ultrasound training across adult critical care

machines. Staff in the hospital's two intensive care units intend to work together to set up an integrated training programme in critical care ultrasonography and echocardiography for trainees in critical care.

The equipment: At present, the neurosciences critical care unit (NCCU) at Addenbrooke's does not have a dedicated ultrasound machine. Furthermore, the current ultrasound equipment on the John V Farman intensive care unit (JVF ICU) requires upgrading. The provision of the requested high quality ultrasound equipment will establish the provision of diagnostic ultrasound and ultrasound training across adult critical care in a unified and sustainable way.

Comment from the committee: "We are supportive of this application because ultrasound provision and training within critical care is not only important, but will become mandatory in due course."

Grant applicants: Dr Ari Ercole.

Amount awarded: £68,200 from the NCCU and JVF ICU funds.

Haemodialysis system

Background: With dialysis treatment, it is essential that staff can accurately monitor patients' arterial venous fistula (abnormal channels or passages between the artery and a vein). There are currently four dialysis units in the region (at Addenbrooke's, Kings Lynn, Hinchingsbrooke and Bury St Edmunds) as well as the onsite renal ward.

Currently there is one haemodialysis monitor at Addenbrooke's and the satellite hospitals share a second machine. This means patients do not always have proper access to this scanning equipment and are required to travel to Addenbrooke's for monitoring and to help diagnose issues with their dialysis access.

The equipment: An additional machine will help with early intervention and detection of problems, ensuring timely treatment and helping to prevent hospital admission. The surgical team will also use this machine for the surgical creation of fistula and to monitor access flow.

Comment from the committee: "This additional machine has the potential to really boost the care patients receive."

Grant applicants: Madeleine Seeley, Addenbrooke's dialysis unit.

Amount awarded: £34,584 from ACT's renal unit fund.

Tissue bank microscope slide scanner

Background: The Human Research Tissue Bank provides tissue in various forms to researchers both locally and nationally. In the past, it has been difficult to fulfil requests to groups where the tissue needs to be reviewed by a number of people in different parts of the country. This is simply because there isn't enough tissue for the purpose, particularly for those very rare cases or small biopsies.

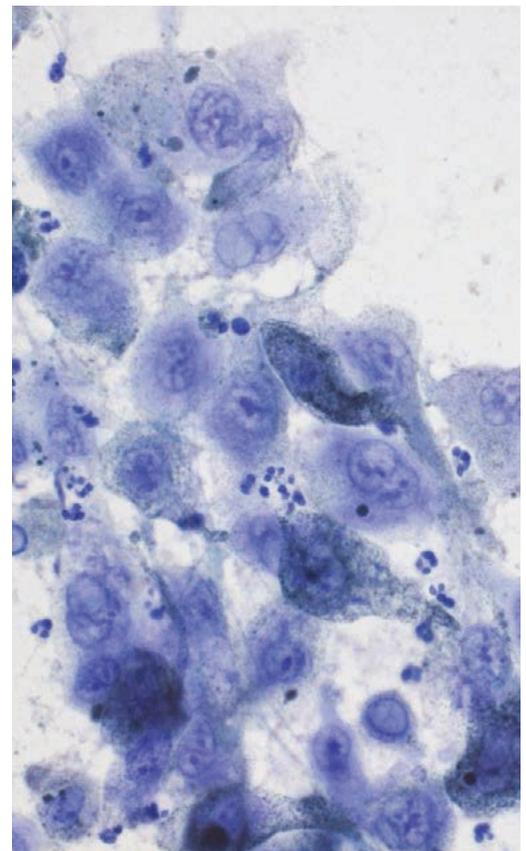
The equipment: Funds were requested to purchase a microscope slide scanner to allow the tissue bank to distribute images and image analysis results globally, to many more research groups, clinical trials and external quality assessment schemes, without the need to provide actual tissue samples.

The team will also be able to hold an image bank for future collaborations, saving time and reducing costs, and allowing tissues to be used for other purposes.

Comment from the committee: "Committee members unanimously agree to support this worthy project which could have international significance."

Grant applicant: Dr Barbara Lloyd.

Amount awarded: £124,808 from the Histopathology Technical Support Fund.



Sharing tissue images and analysis results globally

All grants awarded at these two meetings

Making a difference for patients by supporting future initiatives

If you have been inspired by the range of equipment, research and patient support projects highlighted in this edition of the Grants Bulletin and might be interested in supporting future programmes, please do get in touch with the ACT team.

Grant title and amount awarded	How this benefits patients
Petals counselling service Amount awarded: £10,000	This service supports families bereaved by the loss of a baby.
Accessible hospital menus Amount awarded: £23,600	These menus will help patients to choose their meals in a dignified and accessible way.
Evaluation of humoral responses in cardiothoracic transplant recipients Amount awarded: £10,000	This research may help identify how to make transplants last longer, improving overall patient survival rates.
Validation of the use of Point of Care Technology to measure ketone and lactate levels in the newborn at risk from hypoglycaemia due to impaired perinatal counter regulation Amount awarded: £6,650	This research aims to identify whether point of care testing can more easily identify new born babies at risk of low blood sugar levels, improving their chances of avoiding potential brain damage.
Regional child and family support, Child Brain Injury Trust (CBIT) Amount awarded: £10,000	With this grant, the CBIT can extend to full time its practical and emotional support for children and young people who have acquired a brain injury.
Raising the profile of volunteering Amount awarded: £10,000	This funding will help raise the profile of volunteers within Addenbrooke's and the Rosie, so they can better support patients.
Installing cassette type split system air conditioning to Oncology Amount awarded: £14,496	This funding will help provide a better environment for patients waiting for their oncology appointments.
Converting an existing workshop in the Oncology Mould Room, and suitably equip with ventilation and air conditioning Amount awarded: £66,446	As cancer continues to touch so many lives, this expansion provides much-needed office improvements for the administration and nursing teams that are the pivotal support for highly skilled cancer multidisciplinary teams who deliver effective patient care.
Digital Breast Tomosynthesis Room, Cambridge Breast Unit Amount awarded: £30,000	This new breast imaging technique will make breast cancers easier to identify in dense breast tissue and will make breast screening more comfortable for patients.
Microscope frame/ancillary equipment Amount awarded: £24,517	High quality microscope for use in the haematology lab, enabling more efficient analysis and thus quicker and better results for patients.
Microscope slide scanner Amount awarded: £124,808	This will allow the tissue bank to distribute images and image analysis results globally.

Forthcoming grant application deadlines

RAC

2 July 2014

(Applications will be processed in the order they are received and submitted to the next meeting which has available capacity).

PAC

17 July 2014

(Deadline for applications: 26 June)

Grants

30 July 2014

(Please note that applications cannot be made directly to the Grants Committee)

If you work within Addenbrooke's or the Rosie and would like to apply for a grant, please visit: <http://connect/index.cfm?articleid=6074>

Grant title and amount awarded	How this benefits patients
<p>Characterisation of late outgrowth endothelial progenitor cells from patients with end-stage renal failure and exploration of their potential utility in vascular repair</p> <p>Amount awarded: £14,796</p>	<p>This is an early project to look for possible new treatments to increase life expectancy of dialysis patients.</p>
<p>How does tau burden affect neuronal health?</p> <p>Amount awarded at this meeting: an additional £811, toward travel costs</p>	<p>This award will allow a researcher to spend time in another laboratory to learn state of the art techniques and better understand why, in dementia, some brain cells die and others survive.</p>
<p>Targeting smooth muscle cell phenotypic switching</p> <p>Amount awarded: £27,275</p>	<p>This study aims to identify drugs that block the effects of myocardin, a protein which causes abnormal smooth muscle cells to develop in the walls of the blood vessels. Current therapies for coronary heart disease do not address this problem and this project may identify new pharmacological approaches to prevent blood vessel narrowing.</p>
<p>Plasma membrane profiling of HIV-infected CD4+ T cells</p> <p>Amount awarded: £6,854</p>	<p>Findings from this research will help better understand the HIV virus and may help identify new therapeutic approaches.</p>
<p>Radio Addenbrooke's</p> <p>Amount awarded: £15,000</p>	<p>The alterations to the studio will improve the working environment, making it compliant with Disability Discrimination Act requirements and fire regulations.</p>
<p>Four reclining wheelchairs for children with pelvic or lower limb trauma</p> <p>Amount awarded: £2,520</p>	<p>These wheelchairs can be loaned to young people with pelvic or lower limb trauma.</p>
<p>First year salary costs of a permanent Centre Head at Maggie's Wallace based at Addenbrooke's</p> <p>Amount awarded: £50,000.</p>	<p>The post holder will manage the centre's psychosocial support for people living with cancer.</p>
<p>Improving patient experience plasma screen</p> <p>Amount awarded: £2,200</p>	<p>Nuclear medicine patients will be able to benefit from this new screen displaying information relevant to their clinic visit.</p>
<p>Space MRI-station with trolley</p> <p>Amount awarded: £15,500</p>	<p>This special MRI station allows drugs to be delivered without risk to children receiving intensive care, while they are being imaged. This equipment was funded thanks to the Oliver Else Fund.</p>

How the grants process works

The Grants Committee advises ACT's trustees in setting their grant-making strategy and priorities.

Applications are received by the Research Advisory Committee (RAC), chaired by Dr John Bradley, and the Professional Advisory Committee (PAC) for non-research applications, chaired by Dr Rob Ross Russell. Committee members review each application and make recommendations to the Grants Committee for ratification. All committees meet four times a year.

Some grants are made from designated or restricted funds, where supporters have stipulated how they would like their donations to be spent. Other grants are made from unrestricted funds, which are vitally important because they give ACT's trustees the flexibility to meet patients' needs as and when they arise across the hospitals.

As unrestricted funds are limited, ACT is striving to encourage more supporters to give unrestricted donations, so more projects like those listed in this bulletin can be funded. Charitable funding is allocated to projects and initiatives over and above that which the NHS would normally finance. It can, however, be used for routine refurbishment or to meet statutory NHS requirements if it can be shown that there is substantial benefit, such as accelerating advances in medical care or increasing the quality of service provision over and above that possible through NHS funding alone.

All grants awarded at these two meetings

Grant title and amount awarded	How this benefits patients
Endoscopy stack Amount awarded: £32,052	This equipment, which attaches to the demonstrator workstation in the microsurgery lab, will offer better resolution images for teaching. It also has the ability to record presentations for future teaching sessions.
Six months research support Amount awarded: £18,045	This researcher supports Professor Keith Martin in his leading research projects, namely in glaucoma, with the ultimate aim to restore vision in those who become blind due to the disease.
Gemini staining machine Amount awarded: £14,950	This facilitates high-throughput staining capabilities of patient samples to the busy histology laboratory.
Development of oncology pages of the Addenbrooke's website Amount awarded: £15,000	Creating a more user friendly digital environment for patients, their families and friends seeking information about the oncology department.
2 x ultrasound systems Amount awarded: £68,200	Ultrasounds are fundamental diagnostic tools, and these are for the benefit of patients in critical care. The equipment will also enable more intensive care physicians to develop ultrasound skills, in the intensive care environment.
Building on our values... Creating an even kinder, safer, more excellent CUH Amount awarded: £100,000	This large engagement programme, involving staff, patients and the public will help further improve the care patients receive, in accordance with the recommendations of the Francis Inquiry.
Enhancing care for frail elderly in the Emergency Department (ED) Amount awarded: £4,000	This project is to improve the experience and quality of care provided for frail elderly patients in the ED. This will be achieved through developing a staff training package, improvements to the ED environment and developing patient pathways.
Skin camouflage service Amount awarded: £3,750	This service helps individuals to cope with skin conditions, burns, scars and some forms of treatment that significantly affect an individual appearance such as head and neck cancer operations.

Addenbrooke's Charitable Trust (ACT)

Box 126, Addenbrooke's Hospital, Hills Road,

Cambridge, CB2 0QQ

01223 217757

act@addenbrookes.nhs.uk act4addenbrookes.org.uk

Registered charity no: 1048868