

Grants Bulletin

Issue 2

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Welcome to our latest bulletin: Addenbrooke's Charitable Trust (ACT) supports the work of Addenbrooke's and the Rosie hospitals, raising 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 invested 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 1 May 2013 meeting appears on page 4, alongside more information on how the grants process works.



Sculpture of an inner ear cross section

This quarter's grants in numbers

- 11 grants were made in total this quarter, to the value of £296,723.

Of these:

- 5 research grants were awarded, including 1 studentship, totalling £156,261.
- 2 grants awarded to patient support projects, totalling £6,425.
- £134,037 was spent on equipment.

Research grants awarded

Investigating balance

Background: Patients who have a tumour in the nerve of balance in their inner ear, often need to have it removed, leaving their sense of balance and equilibrium impaired.

The research: With this study, researchers will investigate the optimal way of implanting a prosthetic device into the inner ear (vestibular implants) of patients who have lost balance function. Good positioning of the implant is important for it to work well and is currently performed with the patient under general anaesthetic, using eye movements evoked by a small electrical impulse applied to the inner ear as a guide. This new research will better understand the relationship between stimulation of the inner ear, eye movements and the activity of the balance nerve itself with the aim of optimising the positioning of the implant.

Comment from the committee: "We are supportive of this proof of principle study

which would advance knowledge and improve patient outcomes.

Research title: Fundamental investigation of vestibular function – is it possible to measure intraoperative electrically evoked vestibular function?

Grant applicants: James Johnston, Neil Donnelly, James Tysome and Dr Richard Knight.

Amount awarded: £4,800 from ACT's unrestricted funds.

Identifying patients at high risk of liver failure or cancer

Background: Primary sclerosing cholangitis (PSC) is a chronic liver disease in which injury to the bile ducts of the liver, leads to scarring of the liver. Many patients go on to develop liver failure, also running an increased risk of cancers of the liver, bile duct and bowel. Many have inflammatory bowel disease. Yet it is not known why some, but not all patients develop these terrible complications.

What is primary sclerosing cholangitis (PSC)?

PSC is an uncommon condition that affects the bile ducts and liver. It is called:

- Primary - because the cause is not known. (That is, it is not 'secondary' to any known cause such as alcohol or poisons.)
- Sclerosing - because it causes scarring and thickening (sclerosis) of the bile ducts.
- Cholangitis - which means inflammation of the bile ducts.

In this condition, the bile ducts both inside and outside the liver become inflamed and scarred. The scarring causes narrowing of these bile ducts which results in bile building up in the liver. The bile can then damage the liver cells. Eventually, the scar tissue can spread throughout the liver, causing cirrhosis and liver failure. Cirrhosis is a serious condition where normal liver tissue is replaced by scar tissue (fibrosis). It tends to progress slowly and often does not cause symptoms in its early stages. However, as the function of the liver gradually becomes worse, serious problems can develop.

Source: patient.co.uk

The research: The researchers have already established a cohort of 1,500 PSC patients willing to participate in research. The funding provided by this award will collect and analyse detailed clinical information from each of these patients with the aim of identifying the characteristics of patients at high risk of liver failure or cancer. This will be important in good clinical management of PSC patients, and also open up new avenues of research towards new and more effective treatments.

Comment from the committee: "We are supportive of this application from a group

with a strong track record for a project with a competitive advantage".

Research title: Clinical characterisation of the UK-PSC cohort and development of prognostic models to information patient stratification

Grant applicants: Dr Richard Sandford and Dr George Mellis

Amount awarded: £20,000, as matched funding 50:50 from another grant making trust.

Patient support grants awarded

Refurbishing the psychiatric assessment room

Background: The number of patients presenting to the Emergency Department (ED) with psychiatric illness has increased considerably over recent years. For example, in November 2010, 98 patients attended the ED with a psychiatric condition, by November 2012, the number of attendance had risen to 160.

The project: All patients presenting with a psychiatric illness require assessment by a qualified mental health professional within an hour of referral. The Royal College of Psychiatrists has outlined the standards for the facility to be used for such assessments.

A suitable room has been identified at Addenbrooke's and alterations made to meet the required specifications. The grant applicants were seeking support to provide suitable furnishing to create a therapeutic environment, while maintaining patient and staff safety. With this dedicated and appropriately furnished space, delays in assessment can be minimised, improving patient flow.

Comment from the committee: "The 'front door' of the hospital does not receive many donations and deserves greater charitable support".

Grant applicants: Alison Hearn, Senior Clinical Nurse, Emergency Department and Clinical Decisions Unit.

Amount awarded: £1,525 from funds raised by the Friends of Addenbrooke's.



Image of the Tympanometer in use with children

Supporting hearing tests in the community

Background: Specialists in the paediatric audiology service are conducting auditory brainstem response assessments (ABR) on some young babies following their newborn hearing screen. Assessments are currently performed within Clinic 10 but due to electrical interference from the equipment and plant surrounding the department, staff have been unable to perform measurements to the required standard.

What is an ABR test?

The ABR screening test works by recording brain activity in response to sounds. Sound travels through the outer ear as vibrations. When it reaches the cochlea it is converted into an electrical signal. This travels along the nerve of hearing to the brain where it is processed into recognisable sounds.

The ABR test does this by playing a series of clicking sounds through headphones that cover the baby's ears. Three small sensors are placed on the baby's head and connected to the computer equipment. If the hearing system is working normally then the computer will report strong responses. If there is no strong response then the computer will report that a referral should be made.

Around 3% of babies will go on to be referred for a full diagnostic assessment of the hearing.

Source: National Deaf Children's Society

The application: To address the interference issues, the grant applicants have been looking at alternative location arrangements and have identified that performing the assessment in the community setting would allow them to comply with National Hearing Screen Programme requirements.

All of the team's equipment is transportable to community settings apart from the diagnostic 1000Hz tympanometer and this is an essential part of their test battery to assess middle ear function. It aids the team in determining whether a measured hearing loss is sensorineural (permanent) or conductive (temporary).

Comment from the committee: "Travelling long distances with a newborn baby can be difficult, so by taking this service to the community, it makes the service more accessible and family friendly".

Grant applicant: Ann Bol, Head of Paediatric Audiology.

Amount awarded: £4,900 from ACT's unrestricted fund.



The Leica M720 OH5 operating microscope

Equipment grants awarded

Fluorescence technology in neurosurgery

Background: Glioblastomas (GBM) are the most prevalent malignant brain tumour. They account for the commonest cause of cancer death in children, the third commonest in men aged over 45 and the fifth commonest cause in women over 35. As there has been a lack of progress in providing new treatments, it is essential to optimise the current treatments, using the best possible equipment and techniques.

Removal of these tumours has been shown to improve the effect of other oncology treatments, increasing survival rates. However, because the tumour cells invade the normal brain, it is difficult during surgery to know precisely where the edge of the tumour is.

The equipment: The grant applicants explained that with the Leica M720 OH5 operating microscope, surgeons will benefit from greater visibility in deep cavities or lesions and improved ergonomics and comfort. The microscope also offers full HD 3D and 2D visualisation and recording, so that the entire surgical team as well as students will be able to observe and learn more easily.

Comment from the committee: "We fully support this request which can be met from a recent major gift from an anonymous donor".

Grant applicant: Mr Colin Watts, Hon Consultant Neurosurgeon.

Amount awarded: £101,761 from ACT's unrestricted fund.

All grants awarded this quarter

Grant title and amount awarded	How this benefits patients
<p>The Adrian Crisp PhD Studentship – Using 3D cortical bone structure and shape mapping of the proximal femur to predict clinical relevant hip osteoporosis and osteoarthritis</p> <p>Amount awarded: £71,875, funded specifically through a legacy bequest</p>	<p>This pump priming work could help predict osteoarthritis, hip fracture and hip replacement by 3D cortical thickness mapping.</p>
<p>Are the mutations present in ovarian clear cell adenocarcinoma and ovarian endometrioid adenocarcinoma also present in endometriosis?</p> <p>Amount awarded: £18,740</p>	<p>By improving knowledge of why some ovarian tumours develop, it may be possible to improve diagnostic and therapeutic strategies, which could improve the outcome for these cancers.</p>
<p>A pilot project for the design and set up of a multicenter randomised controlled trial on the use of prophylactic antimicrobials in the management of acute pancreatitis</p> <p>Amount awarded: £3,250, match-funding a departmental contribution</p>	<p>Acute pancreatitis is a life threatening disease and in severe attacks the pancreas can become infected and increase the risk of death. This study will help identify whether antibiotics, given to patients suffering from acute pancreatitis prevent infections and significantly reduce the risk to life.</p>
<p>Investigating response and resistance to molecular targeted therapies in malignant melanoma</p> <p>Amount awarded: £37,596</p>	<p>This may help identify the mechanisms behind why, despite progress in treatment for metastatic melanoma, all patients eventually develop resistance and succumb to their disease.</p>
<p>Clinical characterisation of the UK-primary sclerosing cholangitis (PSC) cohort and development of prognostic models to inform patient stratification</p> <p>Amount awarded: £20,000, as 50:50 match funding from another grant making trust</p>	<p>Researchers are hoping to identify why some patients with PSC go on to develop liver failure, inflammatory bowel disease and are at increased risk of liver, bile duct and bowel cancers.</p>
<p>Fundamental investigation of vestibular function – is it possible to measure intraoperative electrically evoked vestibular function?</p> <p>Amount awarded: £4,800</p>	<p>These researchers are investigating how best to position an implantable device to improve balance in patients who have lost balance function in their inner ears.</p>
<p>Paediatric audiology newborn tympanometry</p> <p>Amount awarded: £4,900</p>	<p>This equipment will help specialists test middle ear function in young babies.</p>
<p>Furnishing the new psychiatric assessment room for the emergency department and clinical decisions unit</p> <p>Amount awarded: £1,525 from funds raised by the Friends of Addenbrooke's</p>	<p>This grant will help provide a therapeutic environment for the increasing numbers of patients requiring psychiatric assessments.</p>

Forthcoming grant application deadlines

RAC

16 October 2013

15 January 2014

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

PAC

17 October 2013

(deadline 26 September)

16 January 2014

(deadline: 19 December 2013)

Grants

6 November 2013

5 February 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>One microscope for the haematology department</p> <p>Amount awarded: £20,329</p>	<p>This microscope will help facilitate the diagnosis of haematological cancer.</p>
<p>External freezer room for the Haemophilia Centre</p> <p>Amount awarded: £11,947</p>	<p>Delays in patient treatment will be reduced because products will be instantly available where they are needed rather than being stored elsewhere in the hospital.</p>
<p>Fluorescence technology in neurosurgery</p> <p>Amount awarded: £101,761</p>	<p>This technology will improve the accuracy of brain tumour surgery to improve patient outcomes and support research studies.</p>

Focus on.....results

In 2011, ACT made an award to Dr Matthew Murray, Academic Consultant in Paediatric Oncology at Addenbrooke's and Nick Coleman, Professor of Molecular Pathology at Cambridge University, to investigate particular cancers which can occur in the reproductive organs of patients of all ages.

Although many patients do well after treatment, current chemotherapy interventions can have severe long-term side effects, including hearing loss and damage to the kidneys and lungs. For some patients, outcomes remain poor and testicular cancer continues to be a leading cause of death in young men.

Their studies have identified an 'on/off' switch in a type of cancer which typically occurs in the testes and ovaries called 'malignant germ cell tumours'. Having identified this 'on/off' switch, the researchers say that it is now important to identify new drugs that can be used to keep it in the 'off' position.

Results of their research were published on 1 August in the journal, *Cancer Research*.

To see more visit: <http://ow.ly/nyZbQ>



Dr Matthew Murray

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 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.

Unrestricted funds are limited, so 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 what 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.

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