

Grants Bulletin

Issue 3

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This quarter's grants in numbers

• 22 grants were made in total this quarter, to the value of £645,504.

Of these:

- 2 patient and staff support projects were funded, totalling £14,800
- 3 research projects received a total of £12,079
- 7 pieces of equipment were funded, totalling £117,557
- 7 research training fellowships were awarded, totalling £351,518
- 2 research fellows were funded to the total of £69,550
- 2 staff posts were funded to the total of £80,000

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 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 31 July 2013 meeting appears on page 6, alongside more information on how the grants process works.



Sue Kenwick, a Clinical Genetics Counsellor at Addenbrooke's, was one of the winners of this year's staff arts competition. Sue's painting (above) and a photograph by Porter, Kevin Krogh, were selected by the panel of judges made up of the Addenbrooke's Arts team and from Cambridge Contemporary Art.

Patient and staff support grants awarded

Art activities for staff

Background: Research suggests that a staff arts programme impacts positively on staff retention, morale and ultimately patient care. Over the years, Addenbrooke's Arts has established staff painting, poetry and photography competitions, a choir, book groups and a photography club.

The application: Funding was sought to enable Addenbrooke's Arts to expand these activities and introduce new opportunities for staff to explore their creative side. Plans include resources for the choir, photography accessories, poetry workshops, dance lessons and the purchase of paints and equipment.

Comment from the committee: "This is a very useful project that should be widely promoted to all CUH staff".

Grant applicant: Damian Hebron, Addenbrooke's Head of Arts

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

Supporting familial gastric cancer services by improving information management

Background: The Familial Gastric Cancer Service focuses on providing care for families at risk of gastric cancer because of a hereditary predisposition. It is the only such service nationally and sees patients from all over the country. The team has around 400 families on its databases and the service has a strong research component.

The application: This cutting edge programme currently relies on several unwieldy Excel and Access databases, dating back to the 1990s. The grant applicants requested a bespoke patient management system that

would specifically address the needs of their patients and staff, while helping to significantly streamline the running of the service.

It will also act as a powerful audit and research tool to monitor performance, improve efficiency and manage long term follow-up data.

Comment from the committee: “this is an extremely useful tool, compatible with eHospital and of benefit not only to the local population but families with hereditary gastric cancer throughout the UK”.

Grant applicants: Dr Mark Tischkowitz, on behalf of the Familial Gastric Cancer Service

Amount awarded: £11,400 from ACT’s unrestricted funds.

Research fellowships awarded

ACT’s research fellowships support promising young clinicians who wish to embark on a programme of research training.

The scheme sits at the earliest stage in the pipeline of nurturing the next generation of clinical academics by providing short term support (one year or less) and access to experienced mentorship and supervision.

ACT fellowships are awarded annually, with the Research Advisory Committee providing expert peer review of the fellowship applications.

The following seven fellowships were awarded this year:

Cheun Wai Lee

working with Dr Topun Austin

(Fellowship supported by the Evelyn Trust)

- Investigating newborn brain function and behaviour associated with prematurity and brain injury

Shaheen Hussain

working with Dr Colin Crump

(Awarded the Maxwell Charnley Fellowship)

- Shedding of viruses associated with skin disease in health and immunocompromised patients

Laurence Lok

working with Professor Edwin Chilvers

(Fellowship supported by the Evelyn Trust)

- Imaging neutrophils in inflammatory lung disease

Keval Patel

working with Dr Nitzan Rosenfeld

(Fellowship co-funded with NIHR Cambridge Biomedical Research Centre)

- Investigating ctDNA as a biomarker in blood and urine of prostate and bladder cancer

Luiza Moore

working with Dr James Brenton

(Fellowship co-funded with NIHR Cambridge Biomedical Research Centre)

- Exploring TP53 mutations as a predictor of outcome in high-grade serious ovarian carcinoma

Shivani Bailey

working with Dr Matthew Murray

(Fellowship co-funded with NIHR Cambridge Biomedical Research Centre)

- Targeting oncogenic microRNA clusters in malignant germ cell tumours using tiny locked nucleic acids

Suzanne Murphy

working with Dr Nitzan Rosenfeld

(Fellowship co-funded with NIHR Cambridge Biomedical Research Centre)

- Investigating response and resistance to molecular targeted therapies in malignant melanoma

Fellowship focus



Mr Keval Patel is an Academic clinical fellow in the urology department at Addenbrooke's and is one of the clinicians to have recently been awarded an ACT fellowship. Here we take a closer look at

his plans to study ctDNA as a biomarker in the blood and urine of prostate and bladder cancer patients.

Background: Prostate cancer is the most common male cancer and bladder cancer is the fourth. Each year in the UK, 44,000 people are diagnosed with one of these diseases.

Both cancers require long periods of difficult monitoring, but PSA tests (measuring prostate-specific antigen) can be inaccurate and cystoscopy or prostate biopsies are invasive and unpleasant.

However, patients with cancer have mutations in DNA from their tumours, and these mutations are shed into the blood stream as DNA fragments. Dr Patel is now joining the Cancer Research UK Cambridge Institute which, through advances in genetic research, has shown that these mutated DNA fragments can be detected in the blood of patients with several cancer types.

The study: Mr Patel aims to show that mutated DNA fragments can be detected in prostate and bladder cancer patients. He will then explore whether levels of mutated DNA

reflect the presence and burden of cancer. In the future, similar tests could accurately diagnose cancerous DNA for patients, without uncomfortable or unreliable tests.

Why ACT's fellowship is so important: With an ACT fellowship, recipients are given the opportunity to 'get a foot' into clinical research training, enabling them to go on to compete more effectively for follow-on grants from other funders, leaving them well positioned to transform research into healthcare benefits.

Mr Patel explains how this ACT fellowship could lead to further opportunities which will ultimately benefit patients at Addenbrooke's and beyond: "The ACT fellowship provides a period of research training and the opportunity to gain valuable skills and expertise 'out of programme' to my clinical training as a doctor. It is an entry point into research and a stepping stone. I will conduct pilot studies and generate data, so I can submit a competitive application to national fellowship schemes with the aim of securing follow-on funding towards completion of a PhD. On completion of my research training, I immediately plan to return to clinical duties and The Eastern NHS Deanery has committed to continue support for my higher surgical training".

To see more about the scheme and some of previously funded fellowships, visit ACT's website and look in the 'Where your money goes' section – www.act4addenbrookes.org.uk



Dr Satoshi Hori



Dr Nick Grigoriopoulos



Dr Emma Gudgin

Some of ACT's previous research fellowship recipients



Investigating the attitudes of midwives and patients following elective caesarean section

Research grants awarded

Attitudes and feelings following elective caesarean section

Background: Caesareans continue to be at a high rate despite recommendations from the World Health Organisation (2012) that those performed for non-medical reasons be reduced. Midwives are increasingly caring for women post-caesarean on postnatal wards. However, as a Cochrane review (2012) suggested “there is a lack of research considering how midwives feel about this”. There is also a lack of evidence on the effects of non-medical caesareans on women’s psychological health.

The research: This study has two aims. The first is to explore how mothers experience care on the postnatal ward following caesarean sections for non-medical reasons. The second is to understand how midwives feel about caring for them.

Mothers and midwives will be interviewed either at home or in hospital and while they will each be asked some common questions, they will also have the opportunity to talk freely about their experiences.

Comment from the committee: “We are very supportive of this enthusiastic, well supported applicant with an interesting study”.

Research title: Midwives’ attitudes toward women undergoing elective caesarean section for non-medical reasons and the potential impact those attitudes have on new mothers’ feelings in the early postnatal period

Grant applicant: Joanne Brown

Amount awarded: £1,161 from ACT’s unrestricted medical fund

Using 3D printing to create cranioplasties

Background: Head injury patients sometimes require part of the bone of the skull to be removed during their treatment to reduce the pressure inside their head. This bone is later replaced with an artificial material, called a cranioplasty, to protect the brain and to provide a good cosmetic appearance.

The research: This proof of concept study will examine whether exploring the use of 3D printing to allow cranioplasties to be made quickly and accurately from patients’ CT scans so that patients can have their cranioplasty put in promptly and with a shape that perfectly matches their skull. If successful a larger scale trial will be conducted.

Comment from the committee: “We are supportive of this collaborative study with the Department of Medical Physics and Engineering, offering significant benefit to patients, with the possibility of further development. This request is for a small amount which fits strategically with the wish to promote technology and innovation”.

Research title: Rapid production of custom made cranioplasty plates using 3D printing technology

Grant applicants: Mr Peter Hutchinson, Mr Adel Helmy, Mr Mathew Guilfoyle, Mr Angelos Kolias, Dr Michael Sutcliffe

Amount awarded: £6,000 from ACT’s general medical research and neurosurgery restricted funds

Equipment grants awarded

Cardio-pulmonary blood gas analysis

Background: The Addenbrooke's lung function department currently provides a regional cardio-pulmonary exercise testing service that is used by a number of specialties, both internal and external to the Trust.

Patients are referred for investigation of unexplained breathlessness, assessment for operative risk and what health care they might need post-operatively. The team also investigates potential musculo-skeletal abnormalities such as myopathy, a disease of the muscle or muscle tissue.

The equipment: The information the team provides would be greatly enhanced by the ability to undertake blood gas analysis. It would allow them to determine accurately the levels of oxygenation and carbon dioxide production during exercise which, in conjunction with

oxygen uptake, can currently be measured via a facemask, revealing important information with regards to a patient's gas exchange capabilities.

This equipment will help the team to differentially diagnose certain abnormal response patterns and determine whether there is true hyperventilation or a gas exchange abnormality, for which the therapies and future management are vastly different.

Comment from the committee: "the machine offers well-recognised and significant benefits to the service".

Grant applicants: Dr Karl Sylvester and Dr Jonathan Fuld

Amount awarded: £12,000 from ACT's unrestricted fund

Project feedback

New signs installed in ED to help reduce violence and aggression



Following a £22,000 grant from ACT in November 2012, a series of new patient information signs have been put up in the emergency department to improve the patient experience during what can be a stressful time.

The signs were developed in association with the Design Council to provide patients with the right information, in the right way, at the right time.

This includes new signage, way-finding and information, which will help manage patients' expectations of the service and lead to a calmer environment for the public and staff.

The large signs are located in all cubicles and waiting areas, explaining to patients what area of the department they are in, what stage

of their treatment they are at, who they are expecting to see and any additional useful information.

CUH is one of two Trusts with this type of signage, and the emergency department is the only one to have a map for patients explaining their pathway through the department.

Anna McTaggart, who co-ordinated the project led by Robbie Ayers and Dr Susan Robinson, commented: "The signs reduce the anxiety that some patients may find themselves in when they attend the department, and we are pleased by the positive feedback from staff and patients so far."



All grants awarded this quarter

Grant title and amount awarded	How this benefits patients
<p>Funding for two research fellows</p> <p>1) to increase the understanding of neonatal haemostasis and the impact of FFP (fresh, frozen plasma) and platelet transfusions</p> <p>2) to carry out a randomised controlled trial of weaning from high flow oxygen therapy in neonates</p> <p>Amount awarded: £69,550</p>	<p>These fellowships are within the Cambridge University Department of Obstetrics and Gynaecology and the main focus will be to increase understanding about neonatal care (particularly transfusions in newly born infants) and to develop methodology to inform the design of a clinical trial to test the best ways of weaning young babies off oxygen therapy.</p>
<p>Rapid production of custom made cranioplasty plates using 3D printing technologies</p> <p>Amount awarded: £6,000</p>	<p>This could allow patients to have their cranioplasty put in more quickly and with a shape that perfectly suits their skull.</p>
<p>Midwives' attitudes toward women undergoing elective caesarean section for non-medical reasons and the potential impact those attitudes have on new mothers' feelings in the early postnatal period</p> <p>Amount awarded: £1,161</p>	<p>This project is expected to benefit patients and professionals in ensuring the delivery of post natal care that works well for women following an elective caesarean section.</p>
<p>Art activities for staff</p> <p>Amount awarded: £4,800</p>	<p>Patients will benefit from staff whose morale is improved by such programmes, which have been shown to ultimately lead to better staff retention and a more patient-centred approach.</p>
<p>Regular visits by The Laughter Specialists</p> <p>Amount awarded: £10,000</p>	<p>Laughter and humour therapy help improve patients' well being, especially at times of stress.</p>
<p>Implementation of Kintrack patient information management system for the familial gastric cancer service</p> <p>Amount awarded: £11,400</p>	<p>This bespoke patient management system will not only help streamline the service, but will act as a powerful audit and research tool to monitor performance, improve team efficiency and make it possible for staff to mine long term follow-up data.</p>
<p>Cardio-pulmonary blood gas analysis</p> <p>Amount awarded: £12,000</p>	<p>This equipment will allow the lung function team to better propose therapies and the future management of patients experiencing breathing difficulties.</p>
<p>Hepatic growth hormone resistance in women with type1 diabetes: comparison with controls and effects of oral oestrogen administration</p> <p>Amount awarded: £4,918</p>	<p>This grant is to complete a project started in 2011, thanks to ACT funding.</p>
<p>Two gynaecology / urology couches</p> <p>£15,000</p>	<p>These new couches, funded through a legacy, mean patients can be treated in greater comfort.</p>

Making a difference for patients by supporting future initiatives

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

Whether you have a particular area of interest or would like your contribution to be directed wherever the need is greatest, then the team would be very happy to speak to you about the initiatives that currently need support.

Thank you. You can make a difference.

Forthcoming grant application deadlines

RAC

15 January 2014

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

PAC

16 January 2014

(Deadline: 19 December 2013)

Grants

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>

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Grant title and amount awarded	How this benefits patients
Oncology XS-100i plus sample loader Amount awarded: £14,500	This equipment allows near-patient testing, offering clinicians the same quality of results and the same confidence in result interpretation as results obtained from the main laboratory.
Oncology blood gas analyser Amount awarded: £12,000	The introduction of onsite blood testing will raise quality standards and improve clinic efficiency and patient satisfaction.
Portable ultrasound equipment for breast care Amount awarded: £24,748	The equipment will be used extensively for surgical treatment planning and for aiding treatment of post-operative problems and for locating occult (hidden) cancers at the time of surgery (which is currently done by a complex and uncomfortable additional procedure).
Staffing for clinical biochemistry and immunology One locum biomedical scientist for six months and one clinical scientist for 11 months Amount awarded: £80,000	This additional staff will enable the team to benefit from staff training and on-site development, as well as gain insight into the future purchase of laboratory mass spectrometers. The benefit for patients will be a more knowledgeable staff who are better equipped, providing a service to patients which is over and above the expectations of the NHS.
An extension of the current Hanwell fridge and freezer temperature monitoring system Amount awarded: £27,909	There are no temperature alarm systems using current manual facilities. The extension of the Hanwell system will mean that the recording of blood, samples, re-agents and temperature sensitive consumables can be stored as required for accreditation under expected standards. This will result in an improved service for patients.

(Please note: Fellowships awarded appear in the section above)

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.