



Deanery of Clinical Sciences – Funding Challenge Launch

Doug Gibson (Little France Postdoc Society)

Ben Thomas (Little France Postgraduates Society)

Kate Farrow (Deanery Projects and Student Experience Manager)

12.30 - 13.00 Introduction to the Funding Challenge 2019

13.00 – 13.30 Q+A session

<http://www.ed.ac.uk/clinical-sciences/progression>

Deanery of Clinical Sciences – Funding Challenge 2019

What is it?

- Small grant opportunity for early career researchers (PGT, PGR and Post-Docs) within the Deanery of Clinical Sciences
- Remit: to provide funds to support early career researcher's current study and research.
- 5th year this Funding Challenge has been run – will hopefully continue next year.
- Funding made available by the Deanery and devolved funding from the Institute for Academic Development, allowing for applications of £2,500 max.

Timeline

- 6th March: Launch Event
- 6th March 17:00+, Fyffe Room: Networking event
- Thursday 21st March:
 - 09:30-10:30: '[Finding Funding for Research \(Online\)](#)' IAD training course; and,
 - 17:00+ Fyffe Room: Networking event
- **Friday 29th March 2019, 10:00am (sharp)**: Application deadline
23 days from today
- Funds will be awarded early April
- Money **must** be spent by **31st July 2019** (gives you ~4 months to spend).

Deanery of Clinical Sciences – Funding Challenge 2019

How to apply:

- Open to all Postgrads (PGT&PGR) + Postdocs within the **Deanery of Clinical Sciences**
- Application form will be made available for download following this Launch at the Clinical Sciences webpage: <http://www.ed.ac.uk/clinical-sciences/progression>
- Completed application forms should be sent to: dcs.postgraduate@ed.ac.uk

Assessment:

- Applications will be assessed by a panel of academics and representatives:

Prof. Margarete Heck (Chair)
Dr. Matt Bailey (CVS)
Prof. Adriano Rossi (CIR)
Prof. Lesley Forrester (SCRM)
Dr. Doug Gibson (LFPDS)
Ben Thomas (LFPGS)

Application form:

Apply as individual, or collaborative
- give details of contact person
(Supervisors endorsement not required this year.)

Proposal details – **500 word limit.**
Need to demonstrate the benefit this specific funding would do for your research.

Cost Plan – provide specific details of cost **including VAT** – if buying equipment, you should have a **quotation** in place.
The panel will need reassurance that this funding will be spent by 31st July.

Application form will be made available here:

<http://www.ed.ac.uk/clinical-sciences/progression>

DEANERY FUNDING CHALLENGE APPLICATION FORM

SECTION 1: PROPOSER DETAILS				
Name:		Student/Staff Number:		
		Date of PhD completion (if postdoc)		
Email Address:		Is this proposal resubmission from a previous year?	Yes	No
Research Centre:		Lab:		
If this proposal is approved, is this the lead contact person for the Panel to liaise with?			(Tick appropriate)	
If not, please provide details below:			Yes	No
Name:				
Email Address:				
Telephone Number:				

SECTION 2: PROPOSAL OVERVIEW	
Title of Proposal:	
Total Cost (inclusive of VAT, if applicable):	£

SECTION 3: PROPOSAL DETAILS (Combined word limit of 500 words)		
Brief Description including Timescale: 		
Rationale:		
Justification for Funds:		
Strategic Benefit:		
Collaborators:		
Name:	Centre:	Position:

SECTION 4: COST PLAN				
ITEM	DESCRIPTION	QTY	UNIT PRICE	AMOUNT
			TOTAL	£

PROPOSAL APPROVAL		
Proposer Name:	Proposer Signature:	Date:

Deanery of Clinical Sciences – Funding Challenge 2019

What kind of funding should I apply for?

- Up to you! The remit is deliberately broad, but obviously you are limited to **£2,500**, and the money needs to be spent in one go effectively.
- Small pieces of equipment are an obvious choice, but is not necessarily the only thing that will be successful.
- Selected successful applications from previous years (**~15% fund rate**):
 - The application of super resolution microscopy to study secretion of resin
 - Optimising Endometrial Stromal Cell Isolation for Generation of a Tissue Biobank to Study Endometriosis
 - Recombinant MMP enzymes and Zymography reagents
 - A translating ribosome affinity purification (TRAP) system for zebrafish skin tissue
 - Purchase of mouse brain micro-dissection kit and a voxelator instrument to create a 3d atlas of the synaptic proteome in the mouse brain
 - Generation of Site Specific C31 integrase system platform mouse line to study development
 - Novel Approach to stem cell tracking using the micropet/CT
- Joint applications are encouraged, especially those that are from individuals in different disciplines, research groups or across Centres. Max. limit of £2,500 still applies for collaborative applications.
- If an application was unsuccessful last year *that does not rule you out*, you are welcome to resubmit (as long as 2019 conditions/price etc. are up to date).

Application example from 2015 (Doug Gibson, CIR/CRH):

N.B. – there was no formal application form in 2015, so format will be different this year.

Title: Optimising Endometrial Stromal Cell Isolation for Generation of a Tissue Biobank to Study Endometriosis

Lead Applicant: [Dr Douglas Gibson](#) (Postdoc CIR) request for **£2573**

Co-applicant: [Ioannis Simitsidellis](#) (PhD student CRH/CIR)

AIM: Optimise endometrial stromal cell isolation and generate a fully characterised biobank of cell samples.

Funding Request (Total £2573): Funds are requested for purchase of a [Countess II Automated Cell Counter \(£1995\)](#) and [counting chamber slides \(£578\) manufactured by Life Technologies](#). This is essential equipment as we require rapid assessment of cell viability and number to optimise cell isolation procedures from primary human tissue. Accurate assessment of this information will be critical for detailed recording and storage of cell samples. As part of the application for funding we have carried out field testing of different cell counters (Scepter™ 2.0 Cell Counter, TC20™ Automated Cell Counter) and [identified the Countess II as the most effective for our needs](#). [Quotations have been obtained and are available on request](#).

Rationale

Endometriosis affects 5-10% of women of reproductive age and is associated with chronic pelvic pain [.....]

We have established an inter-disciplinary team [.....] collaboration between Endometriosis clinic staff at NHS Lothian and Researchers in the University of Edinburgh. The research team is a joint collaboration between the MRC Centre for Inflammation Research and the MRC Centre for Reproductive Health. We have established a biobank of blood, saliva, urine, peritoneal fluid as well as endometrial and peritoneal tissue samples from women with endometriosis. We now seek to expand our biobank to include stromal cells isolated from endometrial tissue biopsies. [.....]

Justification for funds: Collection of primary human tissues from clinic occurs sporadically and samples must be processed immediately upon receipt. Collected endometrial tissue is digested and endometrial stromal cells isolated for culture and cryopreservation. We seek to optimise our cell isolation procedure to generate an SOP which will be GLP compliant, assessment of cell number and viability is an essential component of this. Since we also collect peritoneal fluid samples we intend to use cells from these samples immediately and evaluating these cells for assays requires precise determinations of cell number. [We need to quickly and accurately assess cell number and viability and record this information for each patient sample to form a detailed record. Critically, the Automated Cell Counter is highly accurate and will help to eliminate the subjectivity of manual cell counting and user-to-user variability along with USB connectivity ensuring accurate records of primary human cell samples.](#)

Strategic benefit:

As an early career researcher this grant will be invaluable for strengthening my position for a successful fellowship application as it demonstrates my [ability to generate independent research funding](#). This grant will also help to [develop my research independence](#) by enhancing my research expertise and give opportunities to [establish new collaborations](#) by leading new work in endometriosis research. This grant is vital for my [career progression and is a key early step in gaining research independence](#).

The biobank of endometrial stromal cells will provide a unique research resource which will form the basis of new interdisciplinary research within the School of Clinical Sciences for PhD students (Ioannis Simitsidellis) and ECR from both the CIR and CRH (Dr Douglas Gibson, Dr Furquan Ahmad). Edinburgh is a world leading centre of endometriosis research, the cell resource generated as a result of this funding will provide an exceptional opportunity for National and international collaboration (established collaborations with Oxford, Leuven, Turku and Berlin).

Deanery of Clinical Sciences – Funding Challenge 2019

Further inquiries to: dcs.postgraduate@ed.ac.uk

Check for any updates on Clinical Sciences website.

Good luck!

Questions welcome.....

6th March: 17:00 Networking Event

21st March: 09:30-10:30 Finding Funding for Research (Online course)

17:00-late Networking event

29th March by 10:00am (sharp): Application Deadline

Money **must** be spent by **31st July 2019.**

A further application example from 2017 (Natalie Jones, CVS):

Title: Maintenance of rodents physiological temperature during in vivo surgeries

Lead Applicant: Natalie Jones

Funding Request (Total £1389.00): This application is for a homeothermic core-temperature controller for rodents which will be housed in the Ex Vivo Facility in the QMRI. Maintaining core physiological temperature is critical for physiological studies and provision of quality biosamples for downstream research. This equipment would enhance capacity within this core facility. A quote has been obtained from AD Instruments with assurance that after the order is placed the equipment can be delivered within 45 working days.

Rationale: At Edinburgh University, and particularly at the QMRI, in vivo rodent research is key to answering fundamental questions about complex diseases. We benefit from a dedicated facility (E3.27), housed within the Centre for Cardiovascular Science, that allows us to carry out complex surgical procedures in rodents, providing tissues and other biosamples to laboratories throughout QMRI. Time to extraction is a critical factor in biosample quality. So too is maintenance of core-temperature during anaesthesia and surgery. The system that was once in place to monitor and control body temperature is no longer in working order and due to the age of the equipment, the parts for repair are discontinued. The proposed new system will allow automatic regulation of both mice and rat's body temperature resulting in more accurate and consistent data generated and improve the quality of the research output.

Justification for funds: Currently, temperature monitoring is not optimal as there is no automatic system for maintaining rodent's body temperature in the Ex Vivo unit. At present, the animals are kept warm using heating pads in the room. These can only be set to a constant temperature and do not take into account the actual temperature of the animal. During procedures, the heating pad must be checked by hand and the temperature of the animal monitored by touch. A servo controlled unit, which adjusts heat input depending on the temperature of the animal, would enhance the capability of the core facility. There are currently 80 registered users for the Ex Vivo unit from 33 different groups located in all centres of the QMRI. Many of these users carry out procedures in both rats and mice under anaesthesia and their studies would benefit from tight temperature regulation of the animals core body temperature.

Strategic benefit: The grant could allow myself, and many other members of the QMRI, to undertake in vivo work with greater confidence that the animal's body temperature is kept consistent and allowing users to optimise, without distraction, the more mentally demanding aspects of surgeries. This system will also help increase the accuracy of data generated as the animal's temperature is crucial for physiological measurements such as heart rate and respiration. As a first year PhD student, the opportunity to successfully secure funding early on will put me in a strong position for the rest of my PhD.

SECTION 4: COST PLAN					
ITEM		DESCRIPTION	QTY	UNIT PRICE	AMOUNT
1)	Homeothermic controller and plate (Rat)	(ML295/R) AD Instruments heating plate and controller with rectal probe for rats included (3.2mm diameter 25.4mm long) to maintain physiological temperature of animals	1	£1275.00	£1275.00
2)	Rectal probe for mice (RET-3)	(MLT1404) AD Instruments small animal (mice or young rat) stainless steel probe. 1.7mm diameter 19mm long	1	£104.00	£104.00
3)	Delivery charge		1	£10.00	£10.00
				TOTAL	£1389.00