Report of Round 1 Sheffield Clinical Research Academy
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Introduction
The Sheffield Clinical Research Academy (CRA) was set up to support Sheffield build up the capacity necessary to undertake high quality applied clinical research, with an expected increase in grant capture from the National Institute for Health Research (NIHR) and other national peer reviewed funding programmes.

In 2015, a total of five clinicians were selected to participate in the first round of the CRA from our local Trusts:

- Sheffield Teaching Hospitals Foundation Trust
  - Mr Steve Brown, Consultant Surgeon
  - Professor David Sanders, Professor of Gastroenterology
  - Mr John Edwards, Consultant Thoracic Surgeon
- Sheffield Children’s Hospital
  - Dr Tony Hart, Consultant Paediatric Neurologist
- Sheffield Health and Social Care Trust
  - Dr Jane McKeown, Senior Nurse

The CRA fellows were released from their clinical duties for one day per week over two years, and were hosted within ScHARR (School of Health and Related Research, University of Sheffield), where dedicated and structured support was provided from existing infrastructure (including the NIHR Research Design Service (RDS) and the Clinical Trials Research Unit (CTRU)) and methodologists to facilitate the development of research applications.

CRA Outputs
During this time a large number (19) of funding applications were made in collaboration with staff from ScHARR and TuoS:

- 7 Expressions of Interests, 6 of which were to NIHR Health Technology Assessment (HTA)
- 12 Full applications submitted as lead, 3 of which were to NIHR HTA
- 4 Funded as Lead (1 HTA & 3 Charities)
- 5 Funded as co-applicant (1 NIHR Health Services & Delivery Research, 2 Research for Patient Benefit, 1 British Lung Foundation, 1 HTA)

In addition the fellows produced a large number of publications whilst with the CRA:

- 48 Original papers
- 43 Reviews
- 9 Case studies
- 2 Book chapters
Benefits of the CRA

Overall, the CRA fellows reported that in addition to the value of having the time and space to develop applications, collaborations and networks there were a number of additional benefits. These included:

- Developing a clearer understanding of the expectations of funding programmes, such as NIHR HTA, including the time required to prepare an application and the volume of work required;
- Learning about the importance of ongoing mentorship;
- Understanding the need to utilise opportunities to build capacity within their own area, especially when limited research is undertaken in a department. For example, via existing resources such as BMedSci and Masters students; and
- Recognising the need to capitalise on existing networks and collaborations to support both personal development and as potential collaborators on funding applications

Opportunities for improvement

As a new initiative it is important to take on board the learning from both the perspective of the fellows and the respective institutions. Key suggestions include:

- Work is required to ensure the smooth set up of mentorship arrangements.
  - Potential solution: Identifying mentors prior to shortlisting for interview is key
- Managing the expectations of fellows; staff in ScHARR, the RDS and the CTRU are not at the sole disposal nor are they going to write their entire application for them.
  - Potential solution: Ensure Fellows understand the dynamics of this working arrangement with clarification that this support is being provided for free in addition to existing roles held by staff.
- A start date in early Autumn is preferable, with Fellows needing several months lead in to arrange cover in the Trust.
  - Potential solution: Manage the timelines of adverts with a realistic run in time of at least 3 months from interview to the start date.
- Fellows must be physically present in the department where they are hosted to maximize benefits.
  - Potential solution: Ensure that this is a clear requirement of accepting the place on the CRA.
- Fellows are required to take ownership regarding integration within their host department.
  - Potential solution: Outline opportunities at induction, providing fellows with the information and introductions to help initiate integration; adding names to the ScHARR staff list helps with integration but may not be an option due to the volume of emails.
- Two years may not be long enough to see a financial return on the investment from either ScHARR or the respective Trusts.
○ Potential solution: In interim, discuss timelines with Trusts, as this may be more of an issue if less experienced clinical researchers are recruited to subsequent CRA rounds.

- Fellows must commit to providing updates to the mentors and their respective Trusts, especially when difficulties are encountered or they propose to change from the intended plan.
  ○ Potential solution: Include this as a requirement of accepting a place as a Fellow.

- More clarity is needed about the exit strategy for the CRA Fellows.
  ○ Potential solution: Create principles for the exit strategy in relation to access to ScHARR desk space and ongoing support from mentors, and include this information as part of the induction / agreement at the outset.

Quotes from CRA Fellows regarding the added value

The time spent dedicated to research has been incredibly useful to me and I hope this is reflected in the achievements to date. Having the ring fencing to concentrate fully on research has enhanced productivity and served as a nidus for rejuvenating general surgical research at Sheffield Teaching Hospitals. The original aim was to achieve grant funding and this was realised. However, perhaps equally important were other achievements including multiple publications, development of new ideas and sharing of clinical and methodological expertise all leading to enticement of other colleagues and trainees into Sheffield surgical research. **Steve Brown**

This is a unique experience and allows NHS researchers to enter the world of ‘professional researchers’. This exposure helps to develop the individual and hones their skills for future grant applications. The very process of application is exacting and time consuming. To undertake this yourself as a seasoned NHS consultant and researcher is a learning curve. This will also stand you in good stead for supporting others within your department. You will have an intimate understanding of what is involved. Furthermore, links are forged (cross fertilization) which may then be harvested by others. **David Sanders**

The CRA Fellowship has been an invaluable experience. I believe that my understanding of the steps required to develop a successful grant application has improved massively, as a result. I am extremely grateful to all those in the University of Sheffield, Sheffield Teaching Hospitals NHS Foundation Trust and the other NHS Trusts who have put the Clinical Research Academy together. Without any doubt, it has led to significant strides forward in my personal development as a clinical researcher. I am aware of my increased knowledge and value in my participation as a co-applicant, trial management group participant and committee member. I am still hoping that the CRA Fellowship will result in the significant step of substantial funding as Chief Investigator: I have certainly not given up yet! **John Edwards**
I enjoyed my time as a CRA. I am bitterly disappointed we were not successful at gaining the grant for the BRAIN study, but I learned a lot that will take me forward in my career. I totally underestimated the work in even getting a grant submitted to NIHR. As it happens, there is a massive enthusiasm for our work on the BRAIN study nationally. The paper was front page news on the journal and is the most read paper of the month. We had editorial based on it, and I’ve been invited to conferences and to talk to people about the topic. I think it has raised a problem that everyone knew was there, but didn’t want to tackle. I’m hoping raising the profile will now put us in a good position for a new application. **Tony Hart**

I feel the biggest gain for me was having protected time to develop thinking and ideas. It also gave me space to explore learning and support opportunities from within ScHARR and the wider University. The Fellowship provided the networks for me to become a co-applicant on the NIHR HS&DR medicines management successful bid. The CRA Fellowship has resulted in me feeling more confident in taking my ideas forward and leading work within a clinical, educational and research capacity. **Jane McKeown**