Research Funding
Opportunities & Proposals

Date 22.01.14
Craig Bryce, Head of Research Services
Overview

- “Research Grants” – what do we mean?
- The role of Research Support Offices at Higher Education Institutions (HEIs) and Royal Holloway specifically
- Primary funding bodies & opportunities for Early Career Researchers
- Proposal budgets (full Economic Cost – fEC)
- Writing the science
Research Grants, distinct from other income;

- Research Grants and Contracts
  - External funders
  - Generally competitive
  - Project specific
- What we’re not talking about
  - HEFCE grants for teaching / tuition fees
  - HEFCE grant for research (QR income)
  - The Research Excellence Framework (REF) exercise is conducted every 5 years & quantitatively assesses the amount, quality & impact of research being currently undertaken
Total Research Income 2007-2013

Research Income and Grant Announcements

Source: Research Finance, Nov 2013
Research Income by funding source 2012-13

- Research Council: £5,978,000
- EU: £1,028,000
- Industry: £2,310,000
- Charity: £1,448,000
- UK Govt: £1,448,000

Total: £14,296,000

Source: Research Finance, Nov 2013
The role of Research & Enterprise
Research Funding Opportunities & Proposals – Who we are...

- **Director**
  - Tony Greenwood

- **Head Research Services**
  - Craig Bryce
    - Research Services Officer
      - Jane Haycocks
    - Research Services Officer
      - Hanna Barclay
    - Research Services Officer
      - Richard Gough
    - Admin & Reception Officer
      - Helen Chowdury/Shahena Tarapdour

- **IP & Contracts Manager**
  - Philip Johnson
    - Research Grant Set Up Manager
      - Leisha Wickham

- **Research & Business Development**
  - Martin Kelly
    - Research & Bus Dev Mgr
      - Joanna Cox
    - Research & Bus Dev Mgr
      - David Wells
    - Research & Bus Dev Mgr
      - Janice Cullen
    - Research & Bus Dev Mgr
      - Lydia Daniels
Research Funding Opportunities & Proposals – Who we are...

Head Research Services
Craig Bryce

Jane Haycocks - support for Biological Sciences, Earth Sciences & Psychology

Hanna Barclay - support for Computer Sciences, Geography, Physics & Maths

Richard Gough - support for all the Arts and Social Science Faculty
The Success or failure of research grants ultimately lie with the ‘science’

Academics have teaching responsibilities, administrative duties & are carrying out/publishing their current research while continuously applying for external funding to test new ideas

Cannot fit it all into a 9am-5pm day
R&E help academics bid for new funding:
- Identify new opportunities and schemes
- Keep updated with the complicated rules
- Accurately cost the project
- Help fill out the application form
- Give advice on the (lay) science
- Give advice on the presentation
- Co-ordinate with external partners
- Run/attend workshops
Research Funding Opportunities & Proposals – The role of Research & Enterprise

- 5 Research & Business Development Managers:
  - Negotiate with industry funders
  - Encourage entrepreneurial skills
  - Develop start-up & spin-out companies
  - Develop personal research portfolios

- Contracts Manager
  - Contracts, Legal & Intellectual Property Rights

- Research Grant Set-Up Manager
  - Principal Investigator (PI) responsibilities
  - Employing contract staff
Research Funding Opportunities
Research Funding Opportunities & Proposals – Primary Funding Bodies

- UK Research Councils
- Charities
- European Union
- Industry
- UK Government
Research Funding Opportunities & Proposals – UK Research Councils

- Arts & Humanities Research Council
- BBSRC
- ESRC
- EPSRC
- Natural Environment Research Council
- MRC
- Science & Technology Facilities Council

JeS Account required
Research Funding Opportunities & Proposals – Charity Funders

- Alzheimers Research UK,
- American Health Assistance Foundation,
- Bill & Melinda Gates Foundation,
- Breast Cancer Campaign,
- Epilepsy Research UK,
- Leverhulme Trust,
- Muscular Dystrophy Campaign,

- National Centre for the Replacement, Refinement & Reduction of Animals in Research (NC3Rs),
- Nuffield Foundation,
- Parkinson’s UK,
- Wellcome Trust
- etc etc etc....
Individual teams
Post-doc research
1.5-2.5 M€

Mobility Scheme.
Individual post-doc F’ships and ESR PhD funding via ITN

Collaborative & International in nature – large budgets ~6m€
Research Funding Opportunities & Proposals – European Union – Horizon 2020

- Excellent Science: 17 Billion Euros
- Industrial Leadership: 17 Billion Euros
- Societal Challenges: 30 Billion Euros

Total budget: 72 Billion Euros
Research Funding Opportunities & Proposals – How do you get funding for a PhD?

- Usually apply to Doctoral Training Centres/Programmes
- An academic creates a project(s) and applies for funding to do the work
  
  [http://www.rhul.ac.uk/studyhere/researchdegrees/feesandfundingscholarships/researchcouncilgrants.aspx](http://www.rhul.ac.uk/studyhere/researchdegrees/feesandfundingscholarships/researchcouncilgrants.aspx)

- Matched-funding or ‘collaborative awards’ are part-industry/charity funded studentships
  
  [http://www.rhul.ac.uk/studyhere/researchdegrees/feesandfundingsourcesoffunding.aspx](http://www.rhul.ac.uk/studyhere/researchdegrees/feesandfundingsourcesoffunding.aspx)

- Adverts are placed to recruit the best students (for UK universities look at [www.jobs.ac.uk](http://www.jobs.ac.uk))
Research Funding Opportunities & Proposals – How do you get your first post-doc?

- An academic devises a project and applies for funding
- Job adverts are placed to recruit new post-docs, or the academic can specifically name a researcher on the grant application
- As a PDRA (post-doctoral research assistant) you will spend 100% of your time on a specific project
- You can write your own proposal for a post-doctoral fellowship, where you have all the responsibility for the research (difficult to do straight out of a PhD)
Research Funding Opportunities & Proposals – Fellowship Proposals

- Find a funder that matches your ideas/talk to RSO
- Read the guidelines
- Contact your RSO to discuss your intent/the budget
- Write the proposal
- Get it internally reviewed (science)
- Re-write the proposal
- Finalise the budget & get it internally approved
- Submit
- Interview/respond to reviewers comments/2nd stage
- “Negotiate” terms
- Start project
Research Funding Opportunities
Budgets
What do you put in your budget? What are a typical research expenses?

What are biology specific research expenses?

- Research staff/tech
- Equipment
- Lab consumables
- Travel
- Subsistence costs
- PhD student
- PCs/laptops
- Overheads?
- PI’s time?
- Admin support?
- Infrastructure technician?
- Open access/Publication costs?
- Recruitment costs?
All HEIs use FEC as a costing methodology.

Introduced by UK Govt and RCUK in 2005

Not all funders pay FEC, they all have their own policy

**BUT** all projects are **costed** internally on FEC basis regardless of the funders policy.

HoDs and VP can use FEC costing to decide if a project is financially acceptable to the College.

Very rarely does the funder reimburse all our costs
<table>
<thead>
<tr>
<th>Directly Incurred</th>
<th>Directly Allocated</th>
<th>Indirects</th>
<th>Estates</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Additional’ costs incurred in doing the project.</td>
<td>Costs that would be incurred anyway but a share is allocated to the project</td>
<td>Contribution to the administration &amp; HEI overhead.</td>
<td>Contribution to the costs of the HEI physical infrastructure</td>
</tr>
<tr>
<td>e.g. Travel, consumables, research assistance</td>
<td>e.g. the time of the PI or Technicians</td>
<td>e.g. Library, Finance, ITS, me!</td>
<td>e.g. Buildings, light, electricity</td>
</tr>
<tr>
<td>Actual forecast of the costs involved</td>
<td>Estimate of PI’s time applied to his/her actual cost</td>
<td>2013/14 – 41,384 per fte</td>
<td>2013/14 - £13,858 per fte</td>
</tr>
</tbody>
</table>
Research Funding Opportunities & Proposals –
Budgets – Full Economic Costing

An Example: -

36m Project lead by a Senior Prof (10%), 2 PDRAs, £50k consumables, £20k Travel

- How much? £100,000? 300,000? £500,000?
- Actual FEC cost is £758,296
- PI time, £38,991
- RA time, 134,612 x 2 = £269,224
- Direct costs, £70,000
- Indirect costs/Estates - £380,081
**Very rarely does the funder reimburse all our costs**

<table>
<thead>
<tr>
<th>FEC cost</th>
<th>UK Govt/Industry 100% FEC</th>
<th>RCUK 80% FEC</th>
<th>EU – 100% + 25% OH</th>
<th>Charity – Direct costs only</th>
</tr>
</thead>
<tbody>
<tr>
<td>DI costs;</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2RAs - £269,224</td>
<td>£339,224</td>
<td>£271,379</td>
<td>£339,224</td>
<td>£339,224</td>
</tr>
<tr>
<td>Cons - £50k</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>T&amp;S - £20K</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DI Total - £339,224</td>
<td>£339,224</td>
<td>£271,379</td>
<td>£339,224</td>
<td>£339,224</td>
</tr>
<tr>
<td>DA costs;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI time - £38,991</td>
<td>£38,991</td>
<td>£31,193</td>
<td>£38,991</td>
<td>£0</td>
</tr>
<tr>
<td>Estates - £97,708</td>
<td>£97,708</td>
<td>£78,166</td>
<td>£0</td>
<td>£0</td>
</tr>
<tr>
<td>Indirects - £282,373</td>
<td>£282,373</td>
<td>£225,898</td>
<td>£94,554</td>
<td>£0</td>
</tr>
<tr>
<td>TOTAL – £758,296</td>
<td>£758,296</td>
<td>£606,637</td>
<td>£472,769</td>
<td>£339,224</td>
</tr>
</tbody>
</table>
The Royal Holloway internal approvals chain:

R&E ➔ Finance ➔ Head of Dept ➔ Vice Principal ➔ College

The VP is notified when:

- the fEC of a project is over £500,000
- the fEC return is under 80% and the funder is not on our ‘white list’
- The ‘white list’ includes The Royal Society, British Academy, British Council, Leverhulme Trust, Nuffield Foundation, Wellcome Trust
What makes a good proposal
Research Funding Opportunities & Proposals – What makes a good proposal?

- Start developing the idea & proposal early
- Read the funders guidelines (especially formatting)
- Specifically address the funder’s aims & objectives
- Formulate clear research questions
- Assemble a good research team/facilities
- Show proof that you can deliver (track record)
- Be realistic about what can be done in the time
- Include some new ideas
- Have a back-up plan (low risk and high reward)
- Include rationale for methodology
Research Funding Opportunities & Proposals – What makes a good proposal?

- Balance between lay and technical jargon (general funder)
- Show awareness of other work (reviewers)
- Good value for money (all costs justified)
- Well thought-out dissemination plan (academics/public)
- Understand who your work impact on (end users)
- Look at successful and unsuccessful proposals
- Get a colleague to review it (outside of field)
- Address previous comments for revised proposals
- Appreciate that there is an element of luck!
Research proposal submitted by Otto Warburg to the Notgemeinschaft der Deutschen Wissenschaft (Emergency Association of German Science), c.1921.

“I require 10,000 marks“