Career Pathways in Academic Research
Birmingham Life Sciences Careers Conference 14 Nov 2012

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BBSRC allocates around £445M p.a. (2011/12) to:

- Fund innovative, internationally competitive bioscience research
- Train bioscientists
- Support knowledge exchange and encourage economic and social impact
- Engage with the public and stakeholders

Food Security  Bioenergy and Industrial Biotechnology  Basic bioscience underpinning health
Career so far…

1989 BSc Biological Sciences (Brum)
[1988 Medicine]

1992 PhD Fungal Genetics (Brum)

1995 / 1997 Postdocs
HRI - mushrooms
Brum - with Zeneca and AgrEvo - wheat pathogens

2000 BBSRC Science Programme Manager
IGF
GDB

2002 CE-SLO

2003 Innov PM
Business & Innovation

2009 BBSRC Senior PM
Innovation & Skills
Studentships
• DTP
• iCASE
People Movement Fellowship
Incentive Competitions
YES
Roles within BBSRC Office

- Strategic HR
- Executive Support
- Public Engagement
- Financial Planning
- International Relations
- Corporate Policy
- Business Interactions
- Innovation
- Community Relations
- Media & Communications
- Science Strategy
- Government Relations
- Knowledge Exchange
- Accountancy
- Research Skills & Training Strategy
- Evaluation & Evidence-base
- Peer Review Management
- Research Base Interactions
Why did I ever leave?
"This... is excellent news for students, research organisations, industry and the UK as a whole. The **brightest and best students** will be finding solutions to some of the biggest challenges facing us all, from food security through to renewable energy.

"The **partnership approach** means that many institutions are combining their strengths to provide students with improved training and relevant work experience. **This will better equip them for future careers, be it in research, industry, or elsewhere.**"
Is one degree enough?

- Graduates with multiple degrees are more likely to get higher-paid and better jobs than those with only one degree.

- Holders of postgraduate degrees are also more likely to be in work 3½ years after graduating.

The Times 4 September 2009
Why do a PhD?

• An opportunity to research an area of bioscience which grabs you
  – and produce a thesis which makes an original contribution to the field

• An opportunity to develop high-level skills and knowledge
  – which you can take into a range of research and research-related careers
Reasons why not to do a PhD?

- Because you can’t think of anything else to do
- Because the job market at the moment is not good
- Because your lecturer thinks you should
- Because you want to put ‘Dr’ before your name
PhD planning

1. Science Area
2. Supervisor
3. Department
4. Type of PhD Programme
   - Rotation first year
   - Broader exposure to research techniques and skills
   - Broader skills programme, teaching opportunities, etc
   - CASE or placements e.g. PIPS?
5. Funding
   - Current Research Council minimum stipend is around £14k (tax free) (+£2K in London)
   - Eligibility conditions apply to RC funding … seek advice from your prospective university
   - We award funding to departments on a competitive basis
     www.bbsrc.ac.uk/funding/studentships/index.html
   - (BBSRC makes no awards directly to students)
Next steps

- Application
  - Make enquiries any time
  - Adverts mainly Dec-Mar, prestigious PhDs earlier
  - Apply for a project in time (final year, before exams)
  - Funding normally includes MRes/PhD (4 years)
  - Alternatively self-fund – EXPENSIVE

- Prospectus (University Websites)
- Careers Service
- Adverts on Web (e.g. www.jobs.ac.uk)
- Adverts e.g New Scientist
- www.FindaPhD.com or www.FindaMasters.com
- Direct contact / Search widely
**Postdoc opportunities**

- **Postdoc positions** represent a major BBSRC investment in the development of scientists.
- You need to have a lecturer position to apply for BBSRC grant funding.
- But you can write a proposal with a PI and be funded as the ‘researcher co-investigator’.
- But there are risks as well as opportunities to being a postdoc!
- Finding the right postdoc opportunity is crucial.
- And important not to see it as a simple stepping stone into academia.
Figure 1.6 **Careers in and outside science**

BBSRC funded PhD students: destinations of students graduating between 31 July 2010 and 1 August 2011

- HE - research
- HE - academic / other
- Public sector - research
- Public sector - other
- Industry - research
- Industry - other
- Further study
- Teaching
- Other research
- Self employed / voluntary
- Not employed
- Not known / other
How can I make myself more employable?
BBSRC support for enhancing employability

Postgraduates
- Industrial CASE Studentships
- Policy Placements
- Professional Internships for PhD Students
- Advanced Training Partnerships

Postdocs / PIs
- Biotechnology YES
- Flexible Interchange Programme
- Enterprise Fellowships

Undergraduates
- Research Experience Placements

Only Policy Placements and PIPS provide opportunities for substantial experience of non-research work.
• in 17th year and jointly organised by BBSRC / UNIEI (other sponsors: NERC, MRC, Wellcome, TSB, Industry)
• delivers commercialisation awareness training to almost 500 bioscientists
• regional workshops for teams of 5 PhD/Postdocs
• prepare presentation, business plan, with help from expert mentors, based on imaginary biotechnology ideas
• Final (for £1000) in December
• very positive independent 2010 review
www.biotechnologyYES.co.uk

Biotechnology YES
Researcher Development Framework

- **Domain A: Knowledge and intellectual abilities**
  - The knowledge, intellectual abilities and techniques to do research.

- **Domain B: Personal effectiveness**
  - The personal qualities and approach to be an effective researcher.

- **Domain C: Research governance and organisation**
  - The knowledge of the standards, requirements and professionalism to do research.

- **Domain D: Engagement, influence and impact**
  - The knowledge and skills to work with others and ensure the wider impact of research.
Top Ten Tips

1. Plan ahead
2. Be confident, assertive and persistent (“can do” attitude)
3. Play to strengths
4. Be inquisitive
5. Understand the market (skills vs demand)
6. Network (LinkedIn vs Facebook / not all jobs advertised)
7. Seek out challenges / avoid comfort zones / take risks
8. Have good references (it’s a small world)
9. Believe in yourself
10. Have fun, get the balance right and enjoy life!
Who knows…

From an undergraduate degree at the University of Bradford to a first *Nature* paper in just six years. At age 25, Kieran Jones compares lab life in the US and the UK researching stem cells under a BBSRC PhD studentship…

*Image: Jas Grewal*
“The product that the PhD student creates is not the thesis…the product of their study is the development of themselves”

– Sir Gareth Roberts
“It’s good to talk…”

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