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The path to a fellowship - and beyond

Introduction

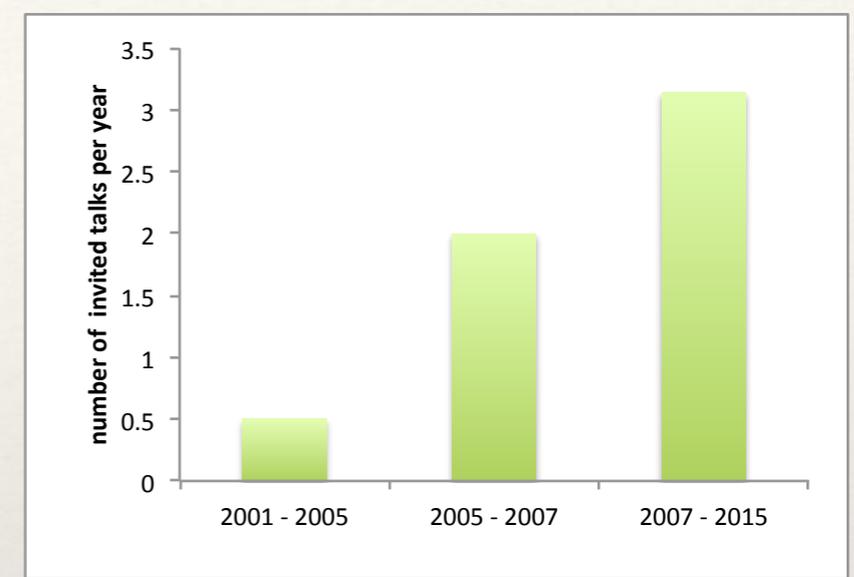
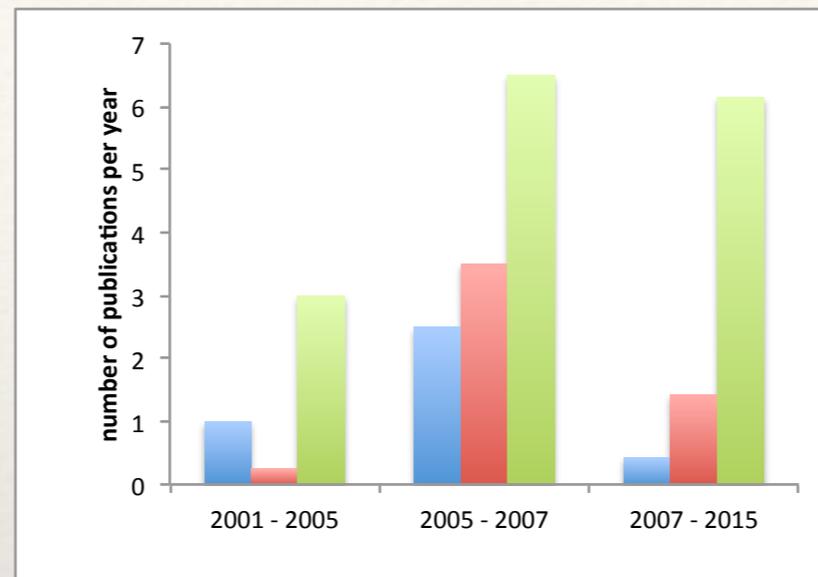
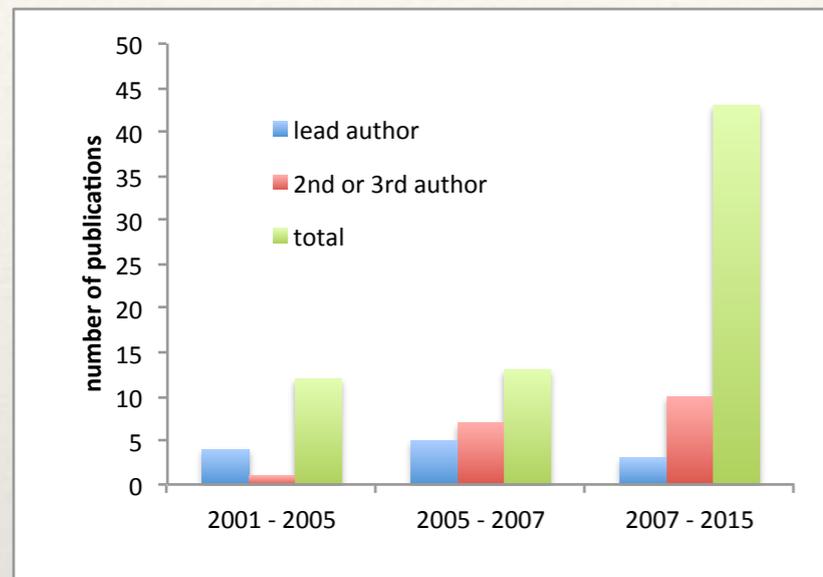
- ❖ 2007 - present Royal Society University Research Fellowship in Department of Physics, Imperial College London
 - ❖ 8th and final year (*finishes at the end of this month*)
- ❖ 2011 - 2015 appointed as Lecturer at Imperial
- ❖ 2015 promoted to Senior Lecturer

Before my fellowship

- ❖ PhD at Imperial, 2001 - 2005
 - ❖ lucky enough to get some big results
- ❖ my Phd “blurred” into a post-doc position in the same group 2005 - 2007



How did staying in the same research group help?



- ❖ Allowed me to finish / develop publications quickly
- ❖ Already working closely with other PhD students in group (lots of 2nd author papers)
- ❖ My supervisor was very good at putting me forward for invited talks.

Why did I apply for a fellowship?

- ❖ In 2006 my supervisor moved to USA... an opportunity
- ❖ Because I became eligible for one
- ❖ Because people who I respect recommended that I should
- ❖ I found out fellowships were a good route to a permanent academic post.

- ❖ Why did I choose the URF scheme in particular?
 - ❖ recommendation from other people
 - ❖ there were not many others that I was eligible for...

Developing my fellowship proposal

- ❖ Discussed my ideas with other group members
- ❖ Attended talks at Imperial on fellowship applications
- ❖ Put together a program that built on key results in my PhD
 - ❖ mix of specific short term and broader long term goals
 - ❖ mix of physics and applications
 - ❖ Built a project timeline around anticipated developments in the field

Developing my fellowship proposal

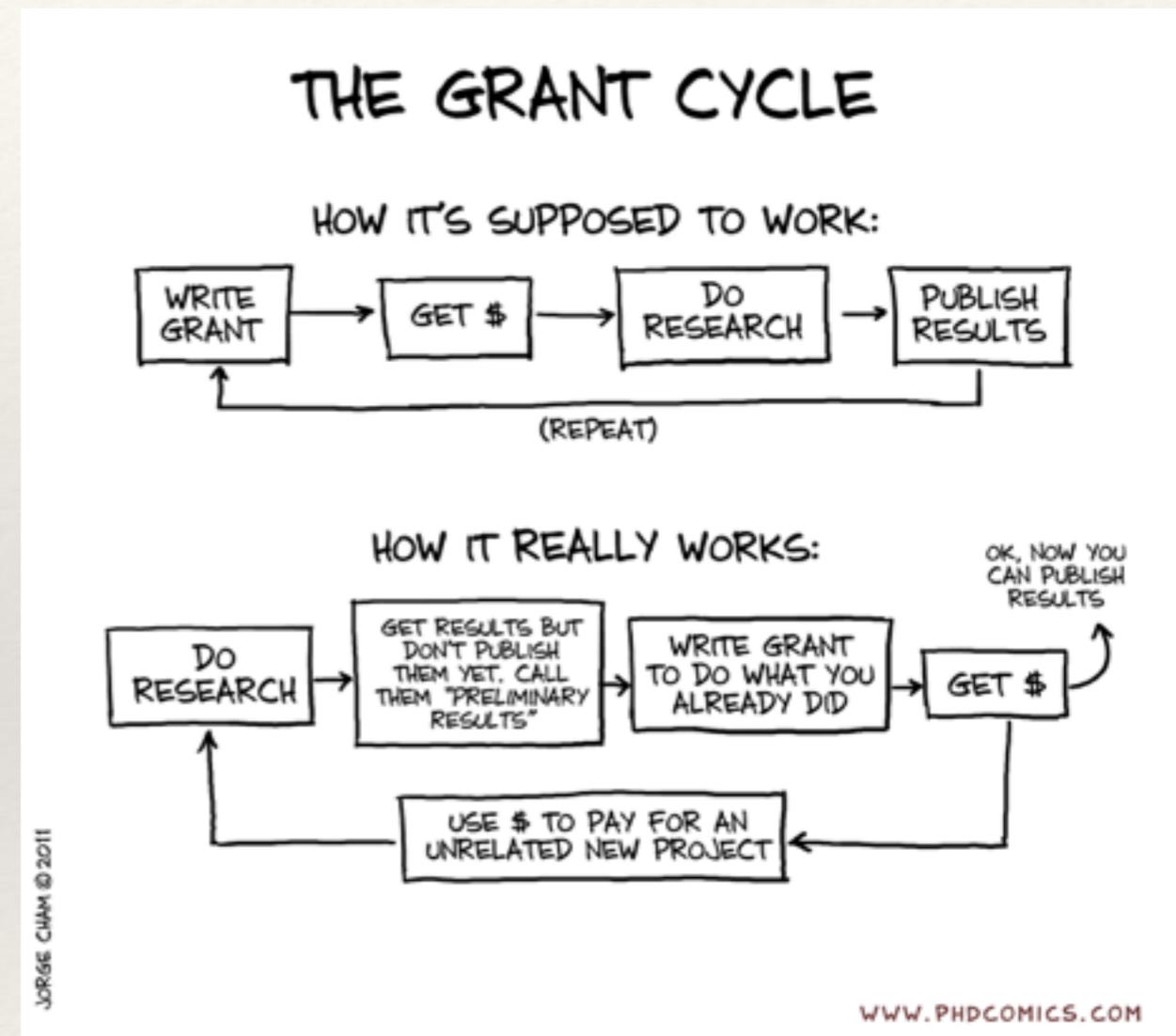
- ❖ I asked three senior colleagues to read my proposal.
 - ❖ Take ownership of what you did
 - ❖ Use “I” or “*My team and I...*” not “We”
- ❖ Write drafts early enough to allow busy academics time to respond properly.
- ❖ I was bold and asked a big name in my field to be my referee
- ❖ I really concentrated on the “lay summary”
 - ❖ Even “*expert*” reviewers will base their opinion heavily on this...
 - ❖ Dumb things down at least one level from actual audience

What did I do next?

- ❖ URF is 5 + 3 years so I knew I had time develop my career
- ❖ Quickly realised that four things get you an academic position
 1. Ability to bring in research income
 2. Publications
 3. “*Belonging*” to the department
 4. International Reputation

Ability to bring in research income

- ❖ Start getting grants as soon as you can
- ❖ Start small!
 - ❖ Royal Society Travel Grants 2008, 2009, 2010 (total £5 k)
 - ❖ Royal Society Research Grant 2009 (£50 k)
 - ❖ EPSRC first grant scheme 2012 (£110 k)
 - ❖ EPSRC small equipment grant for new investigators (£10 k)
- ❖ Move on to bigger collaborative grants
 - ❖ John Adams Institute for Accelerator Science: Oxford, RHUL and Imperial 2012 (total grant £5, ~£1 M to Imperial)
 - ❖ EPSRC on QED-plasma physics 2015 (total £0.8 M, £200 k to Imperial)
 - ❖ MURI grant 2015 (Big USA/UK collaboration, total \$12.5 M, approx £3 M to Imperial)



<http://www.phdcomics.com/comics/archive.php?comicid=1431>

Be prepared for unsuccessful applications

- ❖ I'm always applying for things (and not always getting them)
 - ❖ ERC starter (unsuccessful 2010)
 - ❖ ERC Synergy (unsuccessful 2012)
 - ❖ ERC consolidator (final round 2014)
 - ❖ ERC consolidator (final round, still active 2015)
 - ❖ Horizon 2020 FET Open 2014 (unsuccessful),
 - ❖ 2015 (unsuccessful),
 - ❖ 2015 (about to go back in)
 - ❖ EPSRC (2014, unsuccessful)



Publications

- ❖ As a Phd / post-doc you are *doing* the research
- ❖ To make transition to faculty you need to move more towards *directing* the research

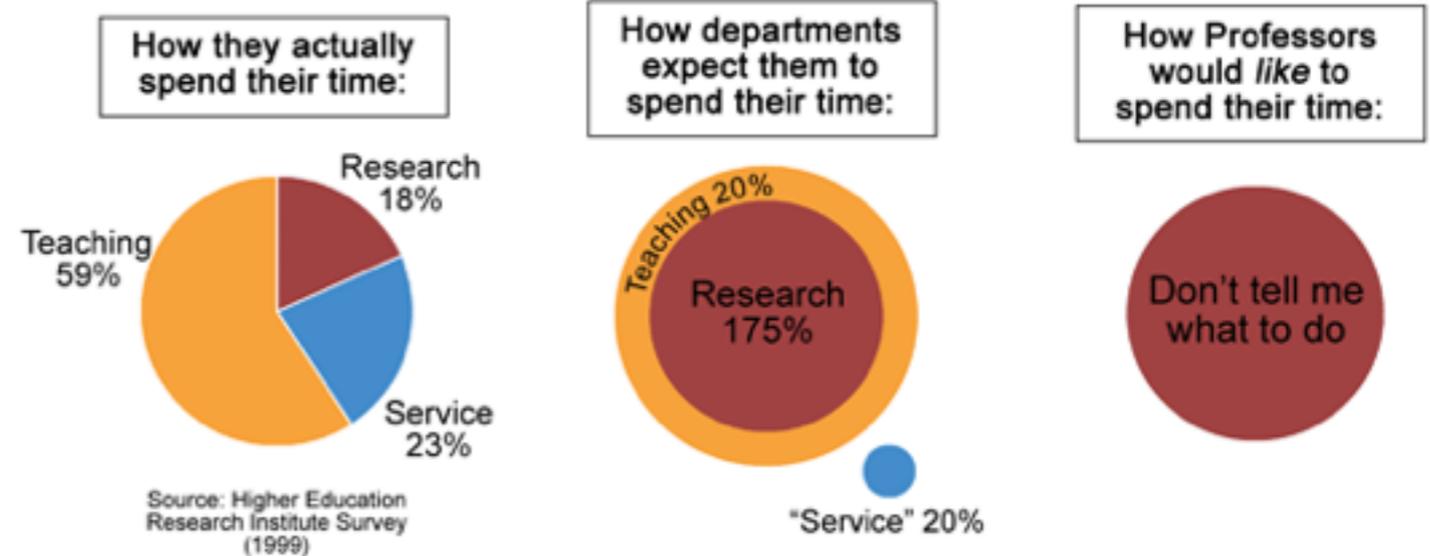
- ❖ Get (good!) students
 - ❖ masters projects
 - ❖ co-supervise PhD students
 - ❖ negotiate / apply for funding for your own students
 - ❖ Encourage your students to write papers...(How??)



“*Belonging*” to the department

- ❖ Fellowships usually “buy you out” of teaching
 - ❖ its tempting to lock yourself in the lab and do 100% research
- ❖ *but* Faculty positions are research *and* teaching - you need to develop both
- ❖ Use your fellowship to develop teaching at your own pace
- ❖ Do (some) things for your department / research group

HOW PROFESSORS SPEND THEIR TIME



Building International Reputation

- ❖ Invited talks (need people to nominate you)
- ❖ Chairing Sessions at conferences / workshops
- ❖ Organising Conferences
- ❖ Refereeing (nearly always say yes... at least in the beginning)
- ❖ Committees (e.g. IoP groups)
- ❖ Writing review papers



Making transition to permanent faculty position

- ❖ This is hard on your own!
 - ❖ you need someone championing you at high levels. Seek advice from senior people in your department
 - ❖ Fellowship to academic is not usually seen as just a promotion (i.e. not like lecturer to senior lecturer),
 - ❖ The department has to advertise a new position (open competition)
 - ❖ Try to make sure you and your research is visible to the right senior people.
- ❖ Find some lectureship application forms now - find out what is expected. You don't want empty sections!