ARC presentation
Postdoc Retreat
2 July 2013

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Australian Research Council
And
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Topics for Today

- Overview of the ARC and its funding schemes
- The grant lifecycle
- Insights into the grants process
- Early to mid career research schemes
- Career development – tips and tricks
ARC - Strategic Objectives

• To support excellence in research
• To build Australia’s research capacity
• To provide informed high quality policy advice to government
• To enhance research outcomes through effective evaluation
• To raise the profile of Australia’s research effort and be an effective advocate for its benefits
Commonwealth Investment in R&D 2013-2014

- Industry R&D Tax Measures: 19.4%
- CSIRO: 8.8%
- DSTO: 4.9%
- Other Govt R&D: 7.4%
- Other Industry R&D Support: 0.1%
- Other Innovation Support: 5.0%
- ARC: 10.2%
- NHMRC: 9.9%
- Other health: 1.0%
- Block Funding to Higher Ed: 21.9%
- Other Higher Ed R&D Support: 0.9%
- CRCs: 1.7%
- Multisector Science Support: 2.4%
- Energy and the Environment: 2.4%
- Rural: 3.9%

Source: Budget 2013-2014 Industry and Innovation tables
Funding sources include:

• Research funding agencies:
  - Australian Research Council
  - National Health and Medical Research Council
  - CSIRO
  - Australian Institute of Marine Sciences

• Department of Agriculture, Fisheries and Forestry

• Department of Environment
  - Australian Biological Resources Study.
  - National Landcare Program

• Research Development Corporations

• Commercialisation Australia, Industry...
ARC NCGP Programs & Schemes

Discovery Program
- Discovery Projects
- Discovery Indigenous Researcher Development
- **Discovery Early Career Researcher Award (DECRA)**
- Future Fellowships
- Australian Laureate Fellowships

Linkage Program
- Linkage Projects
- Linkage Infrastructure, Equipment and Facilities
- Linkage Learned Academies Special Projects
Types of ARC Centres

ARC Centres of Excellence

Industrial Transformation Research Program

Special Research Initiatives

Co-funded Centres
NCGP Grants Lifecycle

Development of RMS
Recruitment of College of Experts or Selection Advisory Committee
Development of Funding Rules
Eligibility Exemption Request
Proposal Submission
Request Not to Assess
Assessment Process
Rejoinder
Selection Meeting
Approval of Outcomes
Funding Agreements and Appeals
Post Award
Announcement
End of Year and Progress Reports
Final Report
The Grants Peer Review Process

- Information flow

Applicant → Application → External Assessors → ARC → Funding result

Minister → ARC → College of Experts → 1st ranking → Final ranking
The Grants Peer Review Process

External Reviewer

Internal Reviewer

Rank

Committee Review

Recommendation to CEO

Minister Approval

$\$ $\$
The Grants Peer Review Process

All Disciplines

- Biological Sciences and Biotechnology (BSB)
- Engineering, Mathematics and Informatics (EMI)
- Humanities and Creative Arts (HCA)
- Physics, Chemistry and Earth Sciences (PCE)
- Social, Behavioural and Economic Sciences (SBE)
Insights into grants process – the ARC perspective

• Where to apply for funding, and choosing a scheme.
• Pay attention to eligibility and ARC cross scheme limits
• The scheme objectives and the selection criteria - address every one of them
• Choosing Field of Research Codes – assisting the ARC choose the right assessors
• Track Record – career interruption – the ROPE provision
• The scale of assessment
  – The external assessor – 1-2 proposals
  – The ARC panel member – 10-50
  – The ARC Panel – 150-400
• The rejoinder - how to address it effectively
Insights into grants process – your perspective

• Understanding the research field and international context. Developing your ideas to solve a research problem.
• Importance of networking with leaders in the field. Consider the research environment when applying too. A centre is a great place
• Applying by yourself. Applying as a team member....
• Career interruptions – making a case for ROPE
• Seek mentors on writing good grant applications
• Your first grant application
  — Writing for your peers – write so that someone *broadly* in your field will understand your project
  — Writing for the public – write a plain English statement
• Don’t over-inflate authorship claims but don’t undersell yourself either
• Key elements of a good grant proposal
<table>
<thead>
<tr>
<th>Focus</th>
<th>Selection Criteria</th>
<th>Convince assessor of ability</th>
<th>Assessment and peer review process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear Research Problem</td>
<td>Keep up to date with the rules</td>
<td>Distinguish from previous/similar work</td>
<td>ARC College of Experts</td>
</tr>
<tr>
<td>Clear writing and easy to read</td>
<td>ROPE*/Track record</td>
<td>FoR Codes (ABS) and keywords. Choose carefully/assessor</td>
<td><a href="http://www.arc.gov.au">www.arc.gov.au</a></td>
</tr>
<tr>
<td>Innovation</td>
<td>Don’t inflate the budget – justify well</td>
<td>Don’t use 99 code</td>
<td>“NCGP”</td>
</tr>
</tbody>
</table>

*research opportunity and performance evidence
LOW RANKED PROPOSALS:

- Use too much technical jargon
- Make grandiose and implausible claims about outcomes
- Don't support claims of excellence or progress with evidence
- Relate to research areas without momentum
- Are weakly linked into national and international research networks
LOW RANKED PROPOSALS:

- Emphasize the collection of data rather than the solution of controversies
- Contain a high rate of spelling and grammatical errors
- Are badly structured and difficult to follow
Responding to a rejoinder

• Read the assessments then wait at least a day before starting the rejoinder
• Approach it constructively
• The rejoinder is to help College of Experts to seek applicant’s views on constructive criticisms made by peers
• Focus on addressing important concerns. It wastes valuable space to rubbish the assessor
## ARC Fellowships

<table>
<thead>
<tr>
<th></th>
<th>DECRA</th>
<th>FT</th>
<th>FL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Career Stage</strong></td>
<td>Early career</td>
<td>Mid career</td>
<td>World-class</td>
</tr>
<tr>
<td><strong>PhD award</strong></td>
<td>0-5 (+3)</td>
<td>5-15 (+7)</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>3 years</td>
<td>4 years</td>
<td>5 years</td>
</tr>
<tr>
<td><strong>Salary</strong></td>
<td>Contribution of $94,512/year</td>
<td>Three salary levels (equivalent to C-E)</td>
<td>Salary supplement of $150,554</td>
</tr>
<tr>
<td><strong>Project costs</strong></td>
<td>Up to $40,000/year</td>
<td>Up to $50,000/year</td>
<td>Up to $300,000/year</td>
</tr>
</tbody>
</table>
Fellowship Proposal Numbers and Success Rates for 2013-14

<table>
<thead>
<tr>
<th>Scheme Round</th>
<th>Proposals Considered</th>
<th>Proposals Approved</th>
<th>Success Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>DECRA – 2014</td>
<td>1468</td>
<td>200</td>
<td>13.6%</td>
</tr>
<tr>
<td>Australian Laureate Fellowships – 2013</td>
<td>112</td>
<td>17</td>
<td>15.2%</td>
</tr>
<tr>
<td>Future Fellowships – 2013</td>
<td>1234</td>
<td>201</td>
<td>16.3%</td>
</tr>
</tbody>
</table>

[http://www.arc.gov.au/nccgp/default.htm]
Size of scheme and success rates (2)

**DECRA 2012-2014: Success Rates**

- **Unsuccessful**
- **Successful**
- **Success rate**

![Graph showing success rates for DECRA 2012-2014](image-url)
Size of scheme and success rates

*Future Fellowships 2009-2013: Success Rates*

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Proposals</th>
<th>Unsuccessful</th>
<th>Successful</th>
<th>Success Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>775</td>
<td>200</td>
<td>575</td>
<td>20.5%</td>
</tr>
<tr>
<td>2010</td>
<td>559</td>
<td>200</td>
<td>359</td>
<td>26.4%</td>
</tr>
<tr>
<td>2011</td>
<td>458</td>
<td>203</td>
<td>255</td>
<td>30.7%</td>
</tr>
<tr>
<td>2012</td>
<td>394</td>
<td>209</td>
<td>185</td>
<td>34.7%</td>
</tr>
<tr>
<td>2013</td>
<td>1033</td>
<td>201</td>
<td>832</td>
<td>16.29%</td>
</tr>
</tbody>
</table>
Future Fellowships

Number of FF awarded

Number of years already in permanent employment (in Australia)
Fellowships objectives

**DECRA Objectives**
- support and advance promising early career researchers;
- promote enhanced opportunities for diverse career pathways;
- focus research effort in the Strategic Research Priority areas to improve research capacity and policy outcomes; and
- enable research and research training in high quality and supportive environments.

**Futures Objectives**
- attract and retain outstanding mid-career researchers;
- build collaboration across industry and/or research organisations and/or disciplines;
- support research in national priorities that will result in economic, environmental, social, health and/or cultural benefits for Australia; and
- strengthen Australia’s research capacity by supporting innovative, internationally competitive research.
Fellowships criteria

DECRA Selection Criteria
• Project Quality and Innovation 40%
• DECRA Candidate 35%
• Research Environment 15%
• Feasibility and Benefit 10%

Futures Selection Criteria
• Future Fellowship Candidate 40%
• Project Quality 35%
• Strategic Alignment 15%
• Collaboration / Outreach 10%
DECRA: Part-time Teaching

• The DECRA Recipient may spend up to 0.15 FTE of her/his time annually on teaching activities. The DECRA will not be extended to accommodate any periods of teaching. Supervision of honours or postgraduate students is not included in this limit.
DECRA: Maternity and Parental Leave

• Maternity leave – up to 14 weeks paid by ARC, extension of DECRA for this period.

• The Administering Organisation must ensure that a DECRA Recipient is entitled to take up to two weeks paid partner/parental leave at the time of birth or adoption to the partner/parent who is not identified as the primary caregiver during the course of the DECRA. The ARC will provide up to two weeks funding for this purpose and the DECRA period will be extended for a period equivalent to the duration of the paid partner/parental leave. The funding for this purpose is to be claimed by the Administering Organisation through submission of a Variation of Funding Agreement.
## Time since PhD – DE14

<table>
<thead>
<tr>
<th>Years since award of PhD</th>
<th>No. of considered proposals</th>
<th>% of considered proposals</th>
<th>No. of approved proposals</th>
<th>% of approved proposals</th>
<th>% success</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>169</td>
<td>11.5%</td>
<td>19</td>
<td>9.5%</td>
<td>11.2%</td>
</tr>
<tr>
<td>1-2</td>
<td>190</td>
<td>12.9%</td>
<td>17</td>
<td>8.5%</td>
<td>8.9%</td>
</tr>
<tr>
<td>2-3</td>
<td>236</td>
<td>16.1%</td>
<td>35</td>
<td>17.5%</td>
<td>14.8%</td>
</tr>
<tr>
<td>3-4</td>
<td>336</td>
<td>22.9%</td>
<td>51</td>
<td>25.5%</td>
<td>15.2%</td>
</tr>
<tr>
<td>4-5</td>
<td>394</td>
<td>26.8%</td>
<td>57</td>
<td>28.5%</td>
<td>14.5%</td>
</tr>
<tr>
<td>5-6</td>
<td>92</td>
<td>6.3%</td>
<td>15</td>
<td>7.5%</td>
<td>16.3%</td>
</tr>
<tr>
<td>6-7</td>
<td>29</td>
<td>2.0%</td>
<td>2</td>
<td>1.0%</td>
<td>6.9%</td>
</tr>
<tr>
<td>7-8</td>
<td>22</td>
<td>1.5%</td>
<td>4</td>
<td>2.0%</td>
<td>18.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1468</strong></td>
<td></td>
<td><strong>200</strong></td>
<td></td>
<td><strong>13.6%</strong></td>
</tr>
</tbody>
</table>

Time since PhD – DE14

- Success rate is greater for people with 3-5 years experience.
- We have also looked at career interruption data:
  - Overall success rate for people with career interruptions is no different to those without career interruptions.
  - Trend in success rate follows same pattern as overall (i.e. a greater success rate with equivalent of 3-5 years experience).
## Gender of candidates – DE14

<table>
<thead>
<tr>
<th>Panel</th>
<th>Number of female candidates</th>
<th>Number of approved female candidates</th>
<th>Female success rate</th>
<th>Number of male candidates</th>
<th>Number of approved male candidates</th>
<th>Male success rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSB</td>
<td>157</td>
<td>21</td>
<td>13.4%</td>
<td>207</td>
<td>29</td>
<td>14.0%</td>
</tr>
<tr>
<td>EMI</td>
<td>63</td>
<td>8</td>
<td>12.7%</td>
<td>338</td>
<td>47</td>
<td>13.9%</td>
</tr>
<tr>
<td>HCA</td>
<td>124</td>
<td>18</td>
<td>14.5%</td>
<td>93</td>
<td>12</td>
<td>12.9%</td>
</tr>
<tr>
<td>PCE</td>
<td>70</td>
<td>10</td>
<td>14.3%</td>
<td>166</td>
<td>22</td>
<td>13.3%</td>
</tr>
<tr>
<td>SBE</td>
<td>139</td>
<td>19</td>
<td>13.7%</td>
<td>105</td>
<td>14</td>
<td>13.3%</td>
</tr>
<tr>
<td>Total</td>
<td>553</td>
<td>76</td>
<td>13.7%</td>
<td>909</td>
<td>124</td>
<td>13.6%</td>
</tr>
</tbody>
</table>

More information

• Your university Research Office (RO) is the essential first stop for information
• ARC staff are available to assist RO via email and phone
• Huge amount of valuable information on the ARC website
  – Funding rules and Instructions to Applicants
  – FAQs
  – Additional pages on various policies
  – Detailed outcomes for all schemes for recent years, arranged by institution and by discipline (FoR code)
Skills you acquire

• The formation of an idea to solve a problem - **Research and technical skills.** Critical thinking.

• **Acquiring and contributing to disciplinary knowledge** – specialised disciplinary practices and cultural paradigms of thinking. **Research Tools and methodologies.**

• **Vital workplace skills** including:
  – Synthesising and **communicating** your research results.
  – **Project planning** and management.
  – **Time management** and **organisational** skills
  – Refined **investigation** skills and **analysing data. IT skills too.**
  – Seeking and accepting **feedback**
  – **Participating in a team** (joint projects)
  – Beginning to **publishing your work**
  – Patience…. Passion…. 
  – **But Wait! Capitalising on skills from other part time or full time work** – retail, hospitality, office, volunteering, sporting clubs
More skills you acquire

• Grant proposal writing
• Communicating your work publicly
• Project/program management – problem solving
• People – performance management and teamwork
• Financial Resourcing – knowing how to develop and monitor a budget
• Accountability/governance and its safeguards
• Understanding Intellectual Property
• Research ethics and Code of Conduct
• The workplace – your responsibilities and your rights
• Networking and being opportunistic
• Delivering results and outcomes
• Interpersonal skills and resilience…..
More skills you may need

- Grant proposal writing
- Communicating your work publicly
- Project/program management – problem solving
- People – performance management and teamwork
- Financial Resourcing – knowing how to develop and monitor a budget
- Accountability/governance and its safeguards
- Understanding Intellectual Property
- Research ethics and Code of Conduct
- The workplace – your responsibilities and your rights
- Networking and being opportunistic
- Delivering results and outcomes
- Interpersonal skills and resilience…..
The next steps of your career

Management

- Understanding the project outcomes
- Planning, budgeting and staffing
- Organising, controlling and problem solving
- Producing a degree of predictability and order
- Responsibility even if you weren’t the person that made the mistake

Leadership

- Vision – seeing and delivering the outcomes of the project
- Establishing directions
- Aligning, motivating and inspiring people
- Produces change
- Full responsibility for whole project/program
Some pause for thought

• Avoid limiting your thinking - the penultimate job you want – versus your current employment
• Every job teaches you something…
• Having mentors – critical for your development
• People that teach you how not to do things
• Career interruptions
• When expectations from others don’t match your view of your work or yourself – self awareness and how others perceive you
• Gender issues when seeking employment – your approach and post – negotiation
• **Work / Life balance** – a post mortem….
Jobs Market

- Australian Public Service
- Non-APS Australian Government Agencies
- Jobs Network
- State Government Public Service
- Local Government and Community Groups
- Industry and non-government organisations
- Universities (Australian and overseas)
- Teaching
- Volunteer work
Research funding trends and how this affects job prospects

• Political strategic directions – for example more collaboration between organisations and industry
• Funding fluctuations and priority changes
• IP and contractual arrangements – the devil in the detail
• Internationalisation and broader collaboration
• Measurement of research performance of individuals, projects and disciplines in Australia compared to overseas.
• Research Impact and Open Access/Data
Remember!

- Publish, publish and publish where its appropriate
- Network with those who are successful in the field
- Build up your skills set - broadly
- Don’t be disheartened and keep trying when applying for jobs
- Maintain a positive attitude
- Think laterally when looking for future work