“Leading by example: Future Fellows and DECRAs”
Monday 20 November via video conference

Notes and documents following the workshop

Chair: David Cahill. Associate Dean (Research)

Invited speakers for this workshop

- Associate Professor Paul Francis, ARC Future Fellow, School of Life and Environmental Sciences.
- Associate Professor Kate Buchanan, ARC Future Fellow, School of Life and Environmental Sciences.
- Dr Jacqui Adcock, ARC DECRA Research Fellow, School of Life and Environmental Sciences.
- Dr Lee Rollins, ARC DECRA Research Fellow, School of Life and Environmental Sciences.

Secretary: Teresa Treffry
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This is the fifth in a series of 5 workshops. Other titles in the series are;

  1. Pathways for women in research.
  2. Engaging with industry
  3. Developing your research career
  4. ‘Dealing with the ARC’

The notes and slide presentations from all workshops are available via the following links

  SEBE staff intranet - https://wiki.deakin.edu.au/display/SEBE/Research+Administration

  SEBE Information for HDR students - http://www.deakin.edu.au/sebe/research/student-information
This is the fifth and last in the series of Faculty research workshops for 2014. The fourth workshop ‘Dealing with the ARC’ looked at the issues that need to be considered when applying for ARC discovery and linkage grants.

This workshop looks at other awards and will be of particular interest to those who are, or who will be applying for an ARC DECRA or Future fellowship. The four speakers that we have for this session today have all been awarded an ARC fellowship and as recent winners are able to provide insights into the process.

Guest speakers for this session are:

- **Dr Lee Rollins**, Research Fellow in the School of Life and Environmental Sciences. Lee received an ARC Discovery Early Career Researcher Award (DECRA) in November this year and shares the career advice she has found most useful.

- **Dr Jacqui Adcock**, Research Fellow in the School of Life and Environmental Sciences, is also the recipient of a DECRA award and presents her own application as a case study.

- **Associate Professor Paul Francis**, ARC Future Fellow, School of Life and Environmental Sciences, gives an overview of his career path to date and gives a personal insight into the factors that contributed to being awarded a Future Fellowship in 2011.

- **Associate Professor Kate Buchanan**, School of Life and Environmental Sciences, received an ARC Future Fellowship this year.
Presentation 1

Dr Lee Rollins, received an ARC Discovery Early Career Researcher Award (DECRA) in November this year, the award was based on an application originally submitted 3 years ago and the advice given at that time including the weaknesses highlighted in the application are the things that Lee worked on subsequently.

The PowerPoint presentation gives a light-hearted view of the top ten career tips that Lee has been given and advice on crafting a DECRA proposal. Briefly as follows

1. Produce a good product – everything will depend on this.
2. Develop a career plan that will cover say, the next 5 years.
3. Develop a diverse team of mentors with different strengths and skills. Lee notes that all have proved invaluable and none has ever refused.
4. Mentor others.
5. Make yourself known in your field, not only through publications and conferences but also by visiting other universities and working on boards in other areas.
6. Initiate collaborations.
7. Be innovative as regards funding, CRGS funds can be used as seed money for other areas. Approach private organisations.
8. Ask for what you need – If you have a good case ask for it!
9. Be self-critical, mentors can also help here, for example pointing out weak areas or missing points in your CV.
10. Apply for funding, even if you don’t need it at the time, as success shows that you are worthy of funding.

Lee has applied for 3 ARC grants and has won 2 and feels that there is a lot of ‘mythology’ regarding a DECRA proposal and the ARC process. Crafting a DECRA Proposal is considered in detail in the slide presentation but in addition the following advice is given.

- Check the previous winners and use this as a guideline for where to position the grant application.
- Choose the ‘right’ field of research code (FOR) and consider your Keywords carefully as these will be used to choose the assessors.
- Use the Career Opportunities section to your benefit – show how you have solved problems.
- For Significant Outputs, -it may be useful to define benchmarks in your field.
- Regarding Contributions to the Field, include service, this not only raises your profile but assessors also made comment on the fact that Lee was acting on the board of other professional societies.
- Project Description, make this reader friendly ask you colleagues to proof read for you and choose a diverse collection of readers as you do not know who will review your application.

The full slide presentation from Dr Lee Rollins with additional information follows.
How to be a successful researcher (Top 10 career tips I’ve been given)

Lee Ann Rollins
Top 10 Career Tips

1) Produce excellent science

2) Take time to develop a career plan
Top 10 Career Tips

3) Develop a diverse team of mentors

4) Mentor others
Top 10 Career Tips

5) Make yourself known in your field

6) Initiate collaborations
Top 10 Career Tips

7) Be innovative with respect to funding

8) Ask for what you need
Top 10 Career Tips

9) Be self-critical and solicit criticism from your mentors

10) Acquire funding
Crafting a DECRA Proposal

- Hearsay about ARC process
- Randomness
- Sample size \((N = 3)\)
Choosing FOR Codes/Key Words

- Choosing the “right” field of research code
- Key words are used to choose assessors

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**B5. Keywords**

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<td>1 invasive species</td>
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<tr>
<td>2 molecular ecology</td>
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<tr>
<td>3 rapid evolution</td>
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Career Opportunities

- Include interruptions
- Be positive
- Demonstrate how you have “recovered”
- Use to your benefit
Significant Outputs

- Define benchmarks in your field

  For comparative reference, the median IF for Evolutionary Biology journals = 2.8 (n = 47 journals), Ecology = 1.9 (n = 136), Genetics and Heredity = 2.6 (n = 161). Source: Journal Citation Reports, accessed March 2014.

- “Other” publications

  Invited seminars, lectures, etc.
Contributions to the Field

- How are you different?
- Who has recognised your work?
- Service
- Use figures
Contributions to the Field

![Graph showing contributions to the field with bars for publications and citations, and a line for research income.]
Culture is a patterned behavioral response that develops over time as a result of imprinting the mind through social and religious structures and intellectual and artistic manifestations. Culture is also the result of acquired mechanisms that may have innate influences but are primarily affected by internal and external environmental stimuli. Culture is shaped by values, beliefs, norms, and practices that are shared by members of the same cultural group. Culture guides our thinking, doing, and being and becomes patterned expressions of who we are. These patterned expressions are passed down from one generation to the next. Other definitions of culture have been offered by Leininger (1985a, 1985b, 1991), Leininger and McFarland (2002), Spector (1996, 2000), and Andrews and Boyle (1996). According to Leininger (1985a, 1985b, 1991) and Leininger & McFarland (2002), culture is the values, beliefs, norms, and practices of a particular group that are learned and shared and that guide thinking, decisions, and actions in a patterned way. Spector (1996) contends that culture is a metacommunication system based on nonphysical traits such as values, beliefs, attitudes, customs, language, and behaviors that are shared by a group of people and are passed down from one generation to the next. According to Andrews and Boyle (1996, 2002), culture represents a unique way of perceiving, behaving, and evaluating the external environment and as such provides a blueprint for determining values, beliefs, and practices. Regardless of the definition chosen, the term culture implies a dynamic, ever-changing, active, or passive process.

Cultural values are unique expressions of a particular culture that have been accepted as appropriate over time. They guide actions and decision making that facilitate self-worth and self-esteem. Leininger (1985a) postulates that cultural values develop as a
Research Environment

- Personalise
  - Financial support (e.g. CRGS)
  - Intellectual support

- Describe your “virtual research environment”
  - Develop an international network
Questions?

- Success

- success

what people think it looks like

what it really looks like
Dr Jacqui Adcock, has also received a DECRA award and presents her own application as a case study. Detailed information regarding how the application was created, the track record considered and the project described is given in the slide presentation but in addition the following points are noted.

- Look at the statistics for success rates and funding – budgets are now tighter.
- Pick the area best suited – It’s OK to switch fields as long as you have the track record to support the switch.
- Regarding the selection criteria, who you are, i.e. your track record is an important component. If you are less than 3 years out, consider who you will be compared with and if you will be strong enough. If you have worked in industry you might also suggest that this affects publication output.
- Present your track record positively, show that you have some independence and will not always be working underneath someone.
- Grants take a while to build apply for awards as well as grants.
- Lead the reviewer, - point out that you are the lead CI, tell the reviewer about your publications don’t expect the reviewer to read them all.
- 40% of marks are given for project quality and innovation, define the problem, how / why is this research new and how does it take into account the strategic research priorities? What will the outcome be?
- Slides 13-18 give detailed advice regarding the project summary and description.
- If more than 50% of the work is being done at another university, consider if Deakin is the best place for your project.
- Note, you are able to apply for a DECRA twice but cannot apply for another fellowship until you are in the final year.

The full slide presentation from Dr Jacqui Adcock follows
A DECRA Case Study

Dr Jacqui Adcock
Centre for Chemistry and Biotechnology
Deakin University
Success Rates and Funding

<table>
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<tr>
<th>Funding Year</th>
<th>Proposals Considered</th>
<th>Proposals Approved</th>
<th>Success Rate</th>
<th>Allocated Funding</th>
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<td>2159</td>
<td>277</td>
<td>12.8%</td>
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<tr>
<td>2013</td>
<td>1281</td>
<td>200</td>
<td>15.6%</td>
<td>99.9%</td>
</tr>
<tr>
<td>2014</td>
<td>1468</td>
<td>200</td>
<td>13.6%</td>
<td>99.9%</td>
</tr>
<tr>
<td>2015</td>
<td>1394</td>
<td>200</td>
<td>14.3%</td>
<td>91.1%</td>
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</table>

In the 2015 funding round:
- Success rates highest for those 5-6 years since PhD (19.8%), followed by 3-5 years (16.5%)
- 33% of grants awarded to those 4-5 years since PhD
- Success rate is the same across all panels (14.1% to 14.7%)
- Success rates similar across Strategic Research Priority areas (12.0% to 15.6%) and higher for no alignment (16.5%)
Selection Criteria

- Project Quality and Innovation 40%
- DECRA Candidate 35%
- Research Environment 15%
- Feasibility and Benefit 10%
ARC – DECRA Candidate

- 35%

- Research opportunity and performance evidence (ROPE)
- Time and capacity to undertake the proposed research
Education

2000 – 2003
Bachelor of Forensic Science (Honours)
Deakin University
Flow Analysis with Chemiluminescence Detection for the Determination of Biologically Active Compounds

2004 – 2008
Doctor of Philosophy (Analytical Chemistry)
Deakin University
Applications and Fundamental Understanding of Selected Analytically Important Chemiluminescence Reactions

Graduated April 2008
Work Experience

2008 – 2009
Postdoctoral Fellow, RMIT University
Development and implementation of fast GC×GC methods for quality control of essential oil and perfume products

2009 – 2010
Postdoctoral Fellow, Deakin University
Enzymatic synthesis of novel fatty acid derivatives of biological importance and development of methods for the analysis of complex lipid mixtures

2011 – 2013
ARC Australian Postdoctoral Fellow (Industry), Deakin University
Enzymatic synthesis, microencapsulation and biological evaluation of a new class of omega-3 derived functional food ingredients
Track Record - Publications

- 31 peer-reviewed publications
  - 11 as first and/or corresponding author
  - 2 invited book chapters
  - 5 invited reviews
- $h$-index of 14
- 529 citations
- 3 journal covers
- 3 international conference presentations
Track Record - Grants

• **JL Adcock**; Comprehensive two-dimensional gas chromatography for lipidomics and biomarker discovery; *Deakin University Central Research Grant (2011)* – $15,000

• CJ Barrow, AJ Sinclair, K Walder, JA Kralovec, HS Ewart, **JL Adcock**, ML Ackland, IF Musgrave; Enzymatic synthesis, microencapsulation and biological evaluation of a new class of omega-3 derived functional food ingredients; *ARC Linkage Grant (2010)* – $470,000

• CJ Barrow, C Lefevre, **JL Adcock**, S Marshall; Novel marine-derived enzymes and processing methods for the production of omega-3 concentrates for food and pharmaceutical use; *Deakin University Partnership Scheme (2010)* – $22,000

• **JL Adcock**; Enzymatic synthesis and complete characterisation of lipid mediators of inflammation; *Deakin University Central Research Grant (2010)* – $20,000
Track Record – Awards

• ARC Australian Postdoctoral Fellowship (Industry) (2010)
• Golden Key Asia Pacific Postgraduate Student Award (2008)
  • Awarded for excellence in research to one postgraduate research student in the Asia Pacific region each year
• Research Excellence Award (2006)
  • Awarded for excellence in research to up to four higher degree by research students each year in the Faculty of Science and Engineering, Deakin University
• Rex Williamson Prize (2005)
  • Awarded to the best doctoral student in chemistry, Deakin University
Track Record – Other Things

• Committee positions:
  • Victorian State Representative of the Analytical and Environmental Chemistry Division of the RACI

• Society memberships:
  • Royal Australian Chemical Institute
  • American Oil Chemists’ Society
  • American Society for Biochemistry and Molecular Biology
  • American Chemical Society

• Journal referee

• Mention career details that may have prevented further output
  • Leave
  • Industry work
  • Teaching
Track Record

- Established my expertise in the area of the grant:
  - Point out how seemingly unrelated work may be linked to the project
  - Give evidence (eg. papers)
- Established my ability to get things done:
  - Outputs
  - Grants resulting in papers
- Evidence of independence:
  - Leadership roles (lab management, equipment management)
  - Supervision of students (I was principal supervisor of one honours student and co-supervisor of four PhD students)
ARC – Project Quality and Innovation

- 40%

- Does the research address a significant problem?
- Is the conceptual/theoretical framework innovative and original?
- What is the potential for the research to contribute to the Strategic Research Priorities?
- Will the aims, concepts, methods and results advance knowledge?
My Project

“Enzymatic synthesis of pro-resolution lipid mediators: Towards new therapeutic strategies for inflammatory diseases”

Summary of Proposal
Inflammation is a major contributing factor in many diseases, including arthritis, Alzheimer’s disease, multiple sclerosis, cardiovascular disease and cancer. It has recently been shown that the resolution of inflammation is an active biological process initiated by lipid mediators. The aim of this project is to synthesise and characterise pro-resolution lipid mediators, elucidate the enzyme cascades involved in their biosynthesis, and explore their roles in the active resolution of inflammation. This project will provide a fundamental understanding of pro-resolution and anti-inflammatory pathways, and new therapeutic target molecules for the treatment of inflammatory diseases.
My Project

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My Project

“Enzymatic synthesis of pro-resolution lipid mediators: Towards new therapeutic strategies for inflammatory diseases”

Public Release
Chronic inflammation is an underlying cause of many diseases, which affect millions of people and cost billions of dollars each year in Australia alone. This project explores the lipid-mediated resolution of inflammation and will create new therapeutic strategies to treat inflammatory diseases.
“Enzymatic synthesis of pro-resolution lipid mediators: Towards new therapeutic strategies for inflammatory diseases”

Public Release
Chronic inflammation is an underlying cause of many diseases, which affect millions of people and cost billions of dollars each year in Australia alone. This project explores the lipid-mediated resolution of inflammation and will create new therapeutic strategies to treat inflammatory diseases.
Project Description

• Short background
  • No marks are given for background – only provide enough for the project to make sense

• A clear objective:
  • “The objective of this project is to synthesise and characterise anti-inflammatory and pro-resolution lipid mediators, to elucidate the signalling and enzyme cascades involved in the activation and biosynthesis of these compounds, and to gain new insight into their roles in the active resolution of inflammation.”

• Specific aims and outcomes
  • Bullet points
  • Four of each
Project Description

- Used the headings given and provided the information asked for clearly under each heading. Eg:
  - The significance of this project is outlined below…
  - The innovation of this project lies in two key areas…

- Approach and methodology
  - Written for the expert
  - My aim here is to convince them that I know what I am doing and I have a realistic plan to achieve it (but not boring or routine)

- Used all the space provided
ARC – Research Environment

• 15%

• Is there a supportive and collaborative research environment for the project?

• Will the Project provide the DECRA candidate with the capacity and opportunity to develop an independent record of innovative, high quality research?

• Are the necessary facilities available to complete the Project?

• Are there adequate strategies to encourage dissemination, commercialisation, if appropriate, and promotion of research outcomes?
Research Environment

• Deakin has everything I need to complete this project
  • Equipment
  • Resources
  • People
• My research is aligned with Deakin’s research strengths
  • SRCs
  • ERA scores
  • Any evidence to support your argument

• Is Deakin really the best place for your project?
Are the design of the project and the expertise of the participants sufficient to ensure the Project can be completed with the proposed budget and timeframe?

Will the completed Project produce innovative economic, environmental, social and/or cultural benefit to the Australian and international community?

Will the proposed research be cost-effective and value for money?
Feasibility and Benefit

• Feasibility
  • I have the expertise to do this project
  • I have the experience to do this project
  • The methodology is sound
  • The research environment is suitable
  • I have good collaborators
  • I have a realistic timeline with multiple streams of research running simultaneously

• Benefit
  • These will be the outcomes of this project
  • It will benefit the following areas outside of academia
  • What is the big picture?

• Value for money
  • Appropriate benefit for the amount of money being spent
  • Good likelihood of success
General Advice

- Read the rules and follow all the instructions
- Take time to write the summary and public release
- Pick your FOR codes so it will go to the right panel
- Pick your FOR codes and keywords so it will go to the right reviewers
- Make sure your grant is well written and well presented
- Always think about the reviewers reading your grant
- Be direct – don’t make the reviewer work too hard
Presentation 3

**Associate Professor Paul Francis**, is an ARC Future Fellow in the School of Life and Environmental Sciences and has been with Deakin University since 1995, when he began a BSc with Honours in Chemical Science and followed this with a PhD in Analytical Chemistry.

Appointed as Associate Lecturer in 2005; from 2005 until 2011 he submitted 9 unsuccessful ARC Discovery Grant Applications (including 3 APD Fellowship applications) and 2 unsuccessful ARC Linkage grant applications before a successful ARC Future Fellowship application in 2011. This was followed by 3 more successful grant applications (out of a total of 7) over the next 3 years.

So what happened to make the difference? In addition to the detailed report which follows, the following advice and strategies are given.

- Look for other area of funding, CRG grants, strategic research funding, student allocation and collaboration.

- Consider the feedback given, positive comments are good but the most useful parts are criticism.

- One interesting aspect, is the fact that initially a decision to remain at Deakin was seen negatively. To help overcome this collaborations were stressed and work undertaken for short periods at host institutions. Staying at Deakin is no longer mentioned as an issue.

- Not moving overseas may have been seen as a drawback at first but had the advantage of fewer interruptions and therefore more time for publishing.

- With hindsight, less time spent writing grants and more time on developing a track record might have been more beneficial.

- Aspire to higher Journals. What are the hot topics? - consider changing the focus of your application to suit.

- If there is one particular Journal that is the best in your field, read abstracts from this every day – use it as a home page.

The detailed presentation from **Associate Professor Paul Francis** following details successful and unsuccessful applications and shows clearly how feedback from assessors was used to develop future funding applications.
ARC Future Fellowship

Paul S. Francis
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<td>June 2011</td>
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Chemiluminescence
My one-way relationship with the ARC

• 2005-2011
  Nine *unsuccessful* ARC Discovery grant applications
    (including 3 APD Fellowship applications)
  Two *unsuccessful* ARC Linkage grant applications
Funding without ARC assistance

- CRG grants (2006-2009)
  - Assessors can also provide useful feedback
- Small external grants/awards
- Strategic research funding
- Student allocation
- Collaboration
Finally

- 2010-2011
  1 Successful ARC Future Fellowship application
Since then

• 2011-2014
  ARC Discovery Grant Applications
    4 unsuccessful and 1 successful
  ARC Linkage Grant Applications
    2 unsuccessful and 1 successful
  ARC LIEF Grant Application
    1 unsuccessful and 1 successful
What has changed?

- Strategies to improve chances of success, based on:
  - Referees comments and other feedback
  - Improving track record
  - Project design
  - Understanding the field of research
ARC Grant Application Feedback

• Not from panel members
• Not worth a lot to your overall grant assessment (until last few years).
ARC Grant Application Feedback

• Not from panel members
• Not worth a lot to your overall grant assessment (until last few years).

“This is an outstanding proposal, very well conceived and written, by any standards and even more so for an ECR.”
ARC Grant Application Feedback

• Not from panel members
• Not worth a lot to your overall grant assessment (until last few years).

• Independent evaluation of your track record, your research ideas and how you are communicating them

• Most useful parts are the criticisms
ARC Grant Application Feedback

• Examples
  – Staying versus overseas postdoc
  – Publishing in the top journals
  – Urgency/significance/importance
Staying at Deakin versus Overseas Postdoc

“…his entire career has been at Deakin University, which must give concerns about the scope of his experience. Which papers is he the lead author on (13 are claimed), what was his exact role, and how does this show research leadership? Is he collaborating with anyone outside his own institution?” (2008)

“To ameliorate the situation, Dr Francis makes a case for a range of collaborations that will widen his experience. Ultimately, however, Dr Francis should consider moving on.” (2007)
Staying at Deakin versus Overseas Postdoc

“...his entire career has been at Deakin University, which must give concerns about the scope of his experience. Which papers is he the lead author on (13 are claimed), what was his exact role, and how does this show research leadership? Is he collaborating with anyone outside his own institution?” (2008)

“To ameliorate the situation, Dr Francis makes a case for a range of collaborations that will widen his experience. Ultimately, however, Dr Francis should consider moving on.” (2007)
Staying at Deakin versus Overseas Postdoc

“the applicant wishes to remain at Deakin. …The reasons given for this decision are convincing and I do not consider that the lack of mobility is detrimental to the application.” (2007)

“It is nice to see an ECR with this relatively high level of independence in a group with other high profile senior member(s).” (2007)
Staying at Deakin versus Overseas Postdoc

• Strategy
  • Collaboration involving research in other laboratories in Australia and overseas
    • Host Institutions on Future Fellowship
  • Track record
    • Journal publications (use advantage)
    • Corresponding authorship
    • Awards
Staying at Deakin versus Overseas Postdoc

Dr Francs has been awarded a medal of the RACI, and is seen as one of the rising analytical chemists of the new generation

… [other flattering comments]…
then: “It is noted that Dr Francis has spent his entire career at Deakin University, which must give concerns about the scope of his experience…” (2009)

No negative comments on staying at Deakin in 2010 (7 years after completing PhD).
Publishing in the Top Journals

“The applicant has a very good track record, with 20 publications over the past 5 years. These papers appear in good journals, but not those in the top echelon in the field.” (2007)

“Looking at his best publications, Dr Francis has yet to publish in a top rank journal (Analytical Chemistry, Chem. Comm., Nature, etc).” (2007)

“Finally, I recommend that the applicant aspire to publish in the top journals in the field (such as Analytical Chemistry).” (2007)
Publishing in the Top Journals

“The applicant has a very good track record, with 20 publications over the past 5 years. These papers appear in good journals, but not those in the top echelon in the field.” (2007) (2 A*, 11 A, 1 B, 3 C and 4 book chapters)

“Looking at his best publications, Dr Francis has yet to publish in a top rank journal (Analytical Chemistry, Chem. Comm., Nature, etc).” (2007)

“Finally, I recommend that the applicant aspire to publish in the top journals in the field (such as Analytical Chemistry).” (2007)
Publishing in the Top Journals

• Strategies
  • Start at research question
  • Referee comments can also be very valuable
  • Read relevant abstracts/papers in those journals
    • Content
    • Style
  • Referee papers
  • Invest time into training HDR students
Publishing in the Top Journals

• ‘Top ten’ papers in application published in very high impact journals, or in decent impact journals and highly cited.
Urgency/Significance/Importance

• Understanding of research field
  – Similar issues as for publications.
• Grant writing skills
  – Read other grants
• Building preliminary data

• First 2 ARC applications
  – Study of chemiluminescence outside visible range
Project Design

• 2007 CRG grant (successful)
  – Highly sensitive detection chemistries for flow-analysis, microfluidics and immunoassay.

• 2008 ARC Discovery grant (unsuccessful)
  – Ultra-sensitive chemiluminescence detection for flow-analysis, microfluidics and immunoassay.

• 2009 ARC Discovery grant (unsuccessful)
  – New strategies for sensitive detection based on chemical reactions that produce light

• 2010 ARC Future Fellowship (successful)
  – New strategies for highly sensitive chemical detection based on luminescent ruthenium and iridium complexes
Project Design

• 2008 ARC grant (unsuccessful)
  – Ultra-sensitive chemiluminescence detection for flow-analysis, microfluidics and immunoassay.

• Very positive comments (from 4 of 6 assessors)
  – Track records
  – Novelty
  – Importance

“The approach is clearly sound, logical and seems to be well thought through and planned.”

“The research track record is impressive and exemplary.”

“It was a true pleasure to read this proposal.”
Project Design

• 2008 ARC grant (unsuccessful)
  – Ultra-sensitive chemiluminescence detection for flow-analysis, microfluidics and immunoassay.

• Negative comments (from 2 of 6 assessors)
  – Methodology issues
  – Overall concept
  – Remaining at Deakin

“I am a little sceptical about the possibility of chemiluminescence providing ultra-sensitive detection.”

“his entire career has been at Deakin University, which must give concerns about the scope of his experience.”
Project Design

• 2009 ARC grant (unsuccessful – top 25%)
  – New strategies for sensitive detection based on chemical reactions that produce light

• Shift of focus to ECL detection
• Collaboration with University of Manchester

• Positive comments from all 3 assessors

“I agree that very significant national benefit could arise if the project is successful. Does the CI have plans for the way in which successful research outcomes could materialize into commercial reality and benefits?”
Project Design

• 2009 ARC grant (unsuccessful – top 25%)
  – New strategies for sensitive detection based on chemical reactions that produce light

• Some methodology issues

“A problem with this kind of work is that there is no a priori theory that would predict a particular complex for a particular target molecule.”

“It is stated that there are ‘well established procedures’ for the synthesis. Is this difficult?”

One assessor: “Considering “Significance” attracts 30% of the score, more attention could be been taken with this section.”
Project Design

• 2010 ARC Future Fellowship (successful)
  – New strategies for highly sensitive chemical detection based on luminescent ruthenium and iridium complexes

• Application format better suited to my strengths

• Project based on ECL detection
  – The immunochemistry detection technology of choice by Roche, the world’s largest commercial biotechnology company
  – Clinical diagnostics and detection of chemical warfare agents

• Demonstrated collaboration
  – Host Institutions
  – ARC Centre of Excellence for Functional Nanomaterials

• Preliminary data in each stream of research
Presentation 4

**Associate Professor Kate Buchanan**, received an ARC Future Fellowship earlier this year and is the Faculty’s most recent fellow. Like others she had a history of failure with previous applications and her top tip is develop a thick skin!

Having taken time off to have children ROPE issues are also addressed in detail in the presentation *(see slide 7)* and Kate also made it clear in her successful application that her H index was equal to others being funded in this area.

Top tips are

- Focus on any activities which increase your research output, impact and profile. Organise a conference, show you are a leader. Look for reviewing and editorial opportunities, ask a few Journals how they choose reviewers.

- Make sure this is a good time for you to apply. Interestingly, statistics show that you are more likely to be funded in the last few months of your eligibility.

- Ask for copies of successful – and unsuccessful applications.

- Take advice, but not all advice! On how to construct your application.

- Make sure the science is topical and the ideas are truly novel and relevant to the Australian community

- Have a thick skin and stay active

- Network – Reviewers are usually from Australia and Australia has a small scientific community.

- Be prepared to move to get a fellowship. International moves are essential at some point in a scientific career

- Once you are successful, negotiate carefully.

The full slide presentation from **Associate Professor Kate Buchanan** with additional information follows.
Kate Buchanan
Life and Environmental Sciences, Deakin University

Future Fellowship 2015-2019
My personal fellowship application history: have a thick skin!

NERC fellowship application: Unfunded

BBSRC fellowship application: Unfunded

Royal Society fellowship application: Unfunded

Royal Commission for the Exhibition for 1851 fellowship: funded 2001-3

ARC QEII fellowship application 2004: Unfunded

ARC Future fellowship application 2008: Unfunded

ARC Future fellowship application 2014: Funded 2015-19
What makes for a successful FF application?

**ARC selection criteria 2014**

- Investigator (50%)
- National research priorities (10%)
- Strategic alignment (15%)
- Collaboration (15%)
- Project quality (10%)
What makes for a successful Future fellow?

- Research record
- Personal
- Conceptual Science
- Networking
- Institutional
How to get there?

1. Publications: quality and quantity
2. Grant income: external
3. Esteem indicators: reviewing and editorial duties
4. Conference presentations: international
5. International collaborations
6. Pick collaborators on their output
## Benchmarking

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<tr>
<th>Name</th>
<th>Institution</th>
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<th>Area</th>
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'Relative to opportunity'

Career breaks/interruptions or responsibilities

'These periods total the equivalent of x months leave/70 months of possible employment, meaning that my FTE over this period has averaged x% during the period of assessment. Comparisons are always difficult to make, however, if ROPE issues are to be given legitimacy in assessment processes, some metric equivalencies should be addressed.'

Gender corrections to h indices

Make it clear any interruptions are now behind you
Top Tips

- Focus on any activities which increase your research output, impact and profile
- Make sure this is a good time for you to apply
- Ask for copies of successful - and unsuccessful applications
- Take advice, but not all advice! On how to construct your application
- Make sure the science is topical and the ideas are truly novel and relevant to Australian community
- Have a thick skin and stay active
- Network - Australia has a small scientific community
- Be prepared to move to get a fellowship. International moves are essential at some point in a scientific career
- Once you are successful, negotiate carefully