Fellowship Writing
(based on the ÖAW DOC Fellowship)

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Grant Office
21/04/20
First, something you may or may not have realized ...
You are a professional writer. (like it or not)

• Academic careers are built on high-impact papers and successful grant proposals (incl. fellowships)
  • Secret: The first cut in faculty recruiting is based almost entirely on this

• Engaging, persuasive writing ensures more papers and proposals are accepted

• Your job is to write non-fiction* stories based only on literature review and your experimental results

* ok, proposals may turn out to be fiction
Yes, you are an actual writer. An English language writer. (eep! - and here’s the proof)

A typical year:

- 4 journal papers (5,000 words each)
- 2 grant proposals (2,000 & 9,000 words)
- 24 peer reviews (1,200 words each)
- 1 technical report (3,000 words)
- 6 administrative documents (avg. 2,000 words each)
- 72 blog posts (avg. 1,000 words each)

Total: 144,000 words
(600 double-spaced pages)

Source: Professor at University of New Brunswick (scientistseessquirrel.wordpress.com)
But it’s not easy being a writer...

• Identify unhelpful behaviors (e.g. avoidance, distraction, feeling stuck, perfectionism, fear of criticism)

Just remember:
• It’s never too early to write
• You don’t need to wait for “inspiration” (there’s a deadline...)
• Just write. Is it terrible? Doesn’t matter. Write it; you can fix it later.

Forcing self-awareness: writing log

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<thead>
<tr>
<th>At:</th>
<th>I was:</th>
<th>At:</th>
<th>I was:</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
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<td>reading baseball blog</td>
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<td>9:54</td>
<td>reading Dilbert</td>
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<td>writing new text</td>
</tr>
</tbody>
</table>

Source: Same Professor at University of New Brunswick (scientistseessquirrel.wordpress.com)
... and now to the content.
The state of play

- Even a strong proposal is in a lottery, but a weak one is certainly dead
- Many research proposals are weak (not the science, just the presentation)
- Most weak proposals have readily-fixable flaws

Audience

- With luck, your proposal will be read carefully by one or two experts. You must convince them.
- But it will certainly be read superficially by non-experts... and they will be the panel members. You absolutely must convince them too.
The secret to motivating reviewers is demonstrating ...

a vision

a plan

a capability

Throughout the proposal ‘package’

It’s not you vs the reviewer: they want to like your proposal, they want to give you the fellowship – make it easy for them!

1. Structure (& required documents)

2. Flow: An engaging story

3. Strategy: Writing for reviewers

Tools
Structure: Proposal types...

The vague proposal

1. I want to work on better type systems for functional programming languages
2. Give me the fellowship

You must identify the problem you are going to tackle

- Is it an interesting problem? That is, is it research at all?
- Is it an important problem? That is, would anyone care if you solved it? (i.e. “impact”)

The aspirational proposal

1. I want to solve the problem of avoiding deadlocks and race conditions in concurrent and distributed programs
2. Give me the fellowship

It is easy to identify an impressive mountain
However, you must convince the reader that you stand some chance of climbing the mountain

- Promising idea (i.e. preliminary work)
- Expertise & experience (you/supervisor/group/collaborator...)

Adapted from Simon Peyton Jones, Microsoft Research Cambridge
Getting closer...

The I’ll-work-on-it proposal

1. Here is a (well-formulated, important) problem
2. Here is a promising idea (...evidence)
3. I have a great supervisor at a top institute (...evidence)
4. I’ll work on it
5. Give me the fellowship

Key question: How would a reviewer know if your research had succeeded?

- Aims/Objectives ...
... linked to methodology & work plan (incl. risk assessment/plan B)

The ideal proposal

1. Here is a problem
2. It’s an important problem (evidence...)
3. I have a promising idea (evidence...)
4. I have a great supervisor at a top institute (evidence...)
5. Here is what I hope to achieve, and how I’ll know if I have succeeded.
6. Here is a plan of how I’m going to get from my idea to that destination
7. Give me the fellowship. Please

Above all, convey your enthusiasm for your project and field
## Getting going...

- Set short-term writing goals: Develop a ‘2/3 page abstract’ from these sections.

- Now you have the platform, work on each section iteratively

**Task:** Apply to past / potential project

<table>
<thead>
<tr>
<th>Pitch/Intro</th>
<th>Preliminary data</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Problem &amp; importance</td>
<td>- Key graphs</td>
</tr>
<tr>
<td>- Your solution</td>
<td>- Key images</td>
</tr>
<tr>
<td>- Potential impact on field</td>
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</table>

<table>
<thead>
<tr>
<th>Key aims/questions</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Research question</td>
<td>- Work packages (linked to aims)</td>
</tr>
<tr>
<td>- List of aims</td>
<td>- Key methods</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Background/SotA</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>- One line for each paragraph</td>
<td>- Gantt Chart</td>
</tr>
<tr>
<td>+ key references</td>
<td>(For example)</td>
</tr>
</tbody>
</table>
Introduction

• Think of this as your ‘vision’ or ‘pitch’
  • Reviewers often make up their mind based on the first page (!)

• You need to introduce an important problem and your innovative solution quickly (first 1-2 pages)

• Background/State-of-the-Art section is not a literature review, it is more targeted than this:
  • Every paragraph has a specific topic and purpose
    ➢ How does the topic relate to your proposal?
    ➢ How will your proposed work relate to/tackle the topic?
In my opinion, the applicant successfully summarizes the literature. The introduction effectively weaves together relevant experimental results of the last twenty years. Importantly, there is not an overreliance on review articles, or research from a particular group or time period. The introduction tells a coherent story that is well-supported by the findings of others in the field, including important findings from the past as well as recent developments.

7. The applicant’s summary of the current state of research is good, but lacks some relevant papers on the role of [redacted], for instance, and the role of [redacted].

The background section was brief (I assume from necessity of meeting a page limit requirement) but covered many of the aspects of [redacted] and some of the previous results related to the project. It was lacking in background on the specific system to be used, that of the [redacted], of which a lot of work has been done, both theoretical and experimental. Based on statements in the proposed work (more details below) it appears the applicant is not fully aware of that prior work.
1. Define a research territory
   • Start broad: Give reviewer context
     • Within that broader field, where does your proposed work fit? This is your research territory

2. Establish a niche within the research territory
   • Identify concrete, narrow, open problem(s) within the territory
   • State specific research question(s)/hypothesis

3. Occupy the niche
   • What will you do and how will it answer the research question/test hypothesis?
   • Optional: end with a brief summary of the expected results/impact
Research Questions/Hypotheses/Aims

This aim of our work is subdivided in three consecutive research questions that will lead from molecular properties of PAR proteins to a coherent picture of PAR polarity establishment:

Question 1) How do PAR proteins interact with the membrane?

Although PAR proteins are thought to interact directly with the membrane, a quantitative characterization of PAR protein-membrane interactions is still missing. We will investigate interactions of PAR proteins with membranes and purified components in vitro. Using model membrane systems of defined lipid composition combined with high-resolution fluorescence microscopy, we will quantify the rate of membrane binding, the diffusion of proteins on the membrane, and the influence of membrane composition on these dynamic properties.

Question 2) What leads to membrane detachment and mutual inhibition of PAR proteins?

We will systematically study how protein-protein interactions within the PAR protein network trigger membrane detachment and mutual inhibition of membrane binding. Using standard biochemical assays combined with high-resolution fluorescence microscopy (TIRF, LSM, Spinning disc) and biomimetic membranes, we will characterize the spatiotemporal dynamics of protein-protein interactions on the membrane down to the single-molecule level. By combining all PAR proteins, this approach will eventually allow us to record the self-organization of the PAR system into large-scale protein domains on supported bilayers in vitro.

Question 3) Is PAR protein self-organization a function of geometric confinement?

After establishing the self-organization of PAR proteins in vitro on flat membrane, we will apply microfabrication techniques to create microcompartments mimicking the geometry of a C. elegans embryo. By this approach, we will study how the protein system responds to spatial confinement. We will systematically explore the impact of different geometries to understand how shape and size impact PAR protein dynamics.

Together, this project will provide us with qualitative and quantitative biochemical and biophysical data of individual proteins and protein ensembles. Studying the self-organizing properties of PAR proteins will give us a mechanistic description how PAR proteins form complementary cortical domains and introduce cellular asymmetry. The proposal described here will enable us to address one of the most important questions of cell and developmental biology, namely how proteins interact to give rise to a living cell and eventually a whole organism.

• Stand out in text e.g. bold font, bullet point, border
• Clear focus on answering these questions/(dis)proving this hypothesis
Clear aims

- Subsequent method steps & data analysis refer/related to these aims/goals

To address these questions, I will focus on the first 48h of YYYY development. I propose the following four aims:

1. Establish the role of XXXX and YYYY in the ZZZZ.
2. Develop a quantitative model to assess the contribution of XXXX, YYYY and ZZZZ to the AAAA and BBBB.
3. Validate and test predictions of the model using a combination of XXXX tools.
4. Assess the impact of impaired XXXX and YYYY on ZZZZ.

- Impact/conclusion section refers to the impact of the eventual answer/(dis)proof

Thus, my work will achieve the following aims:

1. Establish an in vitro system to generate XXXX of the YYYY.
2. Reverse engineer the XXXX in the YYYY.
3. Validate the YYYY in vitro and in vivo.

Overall, data obtained in my research will help understand how AAAAs and BBBs function in the XXXX and hence advance our understanding of a fundamental YYYY process. Furthermore, my project will contribute valuable ideas about XXXX in YYYY systems in general. Changes in AAAA have been shown to control the XXXX and hence YYYY in many systems (Key Refs). Detailed quantitative descriptions of these XXXX are needed to understand the underlying YYYY and how it can provide AAAA to BBBB.
Reviewer Comments (DOC Fellowship): Research Questions/Aims

6. The proposal would benefit from a more hypothesis driven approach with clearer questions.

The research questions are well conceived. A novel approach is outlined to answer fundamental questions about how [redacted]. Not many researchers would tackle these questions in the ways proposed, but they are absolutely the proper methods to employ. The experiments are difficult to do well, but the lab has the expertise and experience to carry them out.

Yes, the project identifies three clear experimental aims with specific assumptions and hypothesis based on available data. Each aims exploits the best methodology and draw clear experiments that incorporate state of the art techniques.

The research questions are very well-defined and the methodology seems appropriate. I would have liked to see more preliminary data showing feasibility.
Methods

• Can be broken down into aims (work packages)

• Preliminary data and risk assessment can be incorporated into each ‘work package’

• Include any data analysis and how you are generating relevant data to answer research questions/reach project goals
Examples

Methods Part 1

Aim 1
To address this question I will build a combinatorial library of genetic switch variants and observe their ability to exhibit bistable behavior. This will be done by quantifying relevant properties of their response to external stimuli. In this part I will mostly make use of diverse cloning strategies like the use of class II and III restriction enzymes, golden gate cloning (Engler et al., 2009), site-directed mutagenesis and operator site shuffling.

Architecture and assembly of the library
The regulatory circuits in question will be variations of an artificial switch based on the toggle switch (Gardner et al., 2000) but incorporated in the architecture of phage λ. Therefore, the promoter designations $P_L$, $P_R$ and $P_{RM}$ as well as the white boxed operator sites are from the wt phage λ genome (Fig. 2). The two transcription factors constituting the switch through double negative feedback will be

Methodology. Both parts are challenging and require new theoretical and algorithmic advancements. In our preliminary results in [13], I showed how can be translated to but the have a huge state space and computing with them is not feasible. I identified an abstraction method that significantly decreases the number of states in exchange for getting bounds instead of exact values and showed that the obtained bounds provide close approximations. However, this approach could only be applied to

Given the current state of research, we need to

- Find a more general algorithm for
- Find efficient algorithms for
- Attempt to improve our current algorithm for
Really stuck? Develop your Gantt Chart

- Plot Work (packages) vs Time
- Then (in methods section) tell me (the reviewer):
  - what you will do
  - why you’re doing it
  - how you will do it
  - when you will do it
  - how long it will take

- Also proves you are not naïve as to how much work you can achieve (ambitious, but not too ambitious...)

![Gantt Chart Example](chart.png)
Activity:

Develop a Gantt Chart for a past or future project

• What are the main aims/tasks/work packages?
• What are the major milestones?
Examples

Figure 3: The time plan illustrates the workload for three consecutive years (Q - quarter). Tasks belonging to one research question are indicated by the same color.
The experiments are well planned, but very ambitious. Appropriate and innovative use of [redacted] is outlined but there are a lot of experiments proposed. The experiments are innovative, but technically challenging. While I am skeptical that all the experiments can be completed in three years, I am also confident that the subset that is completed will yield one and likely multiple high impact publications.

Absolutely, there is a timetable that considers how to integrate the different work packages. Critical methodological aspects are identified and discussed. The project is challenging and ambitious but the applicant demonstrates to have her hands on the critical matter under the appropriate supervision.

The project is quite ambitious, which highlights the motivation of the applicant. As mentioned by the candidate in the project, science is often unpredictable. This not only applies to results or experiments, but also to setups. The project covers several disciplines that will require multiple analysis and interpretations. I think that performing and repeating all experiments proposed in this project will be somehow tight for a three years PhD period. However, I have no doubt that this will be solved and adapted during the projects’ development.

The applicant is excited and ambitious, and this comes across in the application. In my view, a few of the experiments ended up feeling like side projects (e.g. [redacted] of Aim 1, and [redacted] and [redacted] experiments from Aim 3) that could have been cut out of the proposal, which would have allowed for other aspects of each aim to be expanded and outlined more clearly.
2. Flow

• You now have all the important elements, references, questions, methods and phrases in one document

• You need to turn this list/recipe into an compelling story

• This is again an iterative process, only to be started once the main structure is in place
List vs story (Topic ... stress)

1. Molecules are comprised of covalently bonded atoms. Molecules’ reactions are controlled by the strength of the bonds. Molecules, however, sometimes react slower than bond strength would predict.

2. Molecules are comprised of covalently bonded atoms. Bond strength controls a molecule’s reactions. Sometimes however, those reactions are slower than bond strength would predict.

Adapted from: Joshua Schimel (2012) Writing Science
Active verbs/voice

• Simplest story structure: Who (did it), what they did, and what happened.
• Sometimes, though, we don’t want to tell a story about the actor but about the acted-on

Controlling Perspective

Passive: Variable electric fields are produced by a magnetospheric source.
Active: A magnetospheric source produces variable electric fields.

Passive: Water retention in soil is influenced by porosity.
Active: Soil porosity influences water retention.

Adapted from: Joshua Schimel (2012) Writing Science
It’s the little things...

• You have limited space: important to know where and when to add detail

• Reviewer perspective:
  • Generic = boring & impersonal (easy to reject)
  • Well-placed detail = engaging & gives applicant/proposal a personality (harder to reject)

---

**Risk Assessment**

**Risk assessment:**

Even though Method I is a brilliant method for identification of YYYY interactions in vivo, we likely cannot identify transient interactions which are also important to understand functions of a whole network of XXX. You need to also give a solution/contingency plan for this risk.

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**Institute description**

The Bioimaging Facility supports scientists with a number of microscopy techniques. **What specifically is relevant for your project?**

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**CV**

**Education**

20XX-  Institute of Science and Technology Austria, PhD Study program: Group focus, led by Supervisor

20XX - 20XX  University A, Faculty of Science, MSc: Biochemistry

20XX - 20XX  University A, Faculty of Science, BSc: Biology

Did you have a thesis title, supervisor?

**Research experience**

20XX  IST Austria, Internship in XXX group

20XX  YYY Pharmaceutical Company, Country Y, XXX specialist

Responsibilities in role, methods learned/used
It’s the little things...

• You have limited space: important to know where and when to add detail

• Reviewer perspective:
  • Generic = boring & impersonal (easy to reject)
  • Well-placed detail = engaging & gives applicant/proposal a personality (harder to reject)

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Risk Assessment

Risk assessment:

Even though Method 1 is an excellent method for identification of YYYY interactions in vivo, we likely cannot identify transient interactions which are also important in understanding the functions of a whole network of XXXX. As with all other unbiased searches for interactors, this method may also yield false positives, however, the extensive database of possible false-positive hits does not contain Xs, Ys or Zs. Moreover, I will verify possible interactors by other independent methods (Method 1 and Method 3 followed by Method 4) which will ultimately prove or disprove their biological relevance.

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Institute description

The Biomaging facility supports scientists with a number of microscopy techniques. In particular for non-biological applications they provide a Probing Atomic Force Microscope (CellHesion Atomic Force Microscope) with custom made top-view optics. In addition, the facility provides advanced equipment training and image analysis support including the creation of custom image analysis scripts.

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CV

<table>
<thead>
<tr>
<th>Education</th>
<th>CV</th>
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<tr>
<td>20XX-</td>
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<tr>
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<td>Research</td>
<td>Research: MSc goals and key methods used</td>
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</tbody>
</table>

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Research experience

20XX | IST Austria, Internship in XXX group
| Research: Focus/goals of internship
| Methods: Description of key methods used/learned
|                                                |
Excellent grades in graduate course.
Strong research history. One middle author publication and several conference posters/presentations
Undergraduate grades are mixed but this is outweighed by the applicant’s graduate school performance.

The applicant has a Master’s degree and some second author publications though no first author publications. The proposed experiments use cutting edge technology and also include modeling. It wasn’t clear if the applicant has the expertise to perform the proposed experiments though even partial completion would produce an interesting thesis.

The applicant performed already many different experiments on [blank] and has the qualification to work with animals. This is a plus for the development of this project. She also performed stages in labs with different backgrounds providing the skills needed to accomplish this project.

In her motivation letter, she manages to transmit her passion and understanding of the field by identifying a hot question and addressing it with clear experiments. In the support letter by her supervisor [blank] makes special emphasis in the outstanding experimental skills of the applicant and her independent thinking abilities.
3. Strategy

Put yourself in the shoes of the reviewer – what tasks do they need to fulfil? (in the least amount of time possible)

• Reality: ~20 proposals, ~20-30 mins per proposal

If the reviewer needs to look for/extract the answers to a question, you’ve already lost

• Make it easy for them: relevant info in the relevant places
• Clearly headed sections with specific focus
• Cannot state innovation/originality too obviously (may be a generalist)
Impact

• Why should the reviewer be interested in this work becoming reality?
  - New data?
  - New tools/methods?

Risk Assessment & Feasibility

• As with papers, reviewer’s often have a ‘pet’ system/problem/area
  - If possible, intercept such comments by stating additional avenues are ‘interesting, but outside scope of project (next steps)’

Note: I have never seen a comment by a referee stating a proposal from IST was ‘not ambitious enough’, quite the opposite...
Those ‘other’ documents matter ...

Abstract
• Purpose: Attract potential reviewers (ideally those excited to read your proposal).
• Also good for panel members skimming the proposal.

CV
• Purpose: Demonstrate track record of excellence; Capability.
• Provide the required detail: experience, methods, achievements.
... more ’other’ documents ...

Letter of motivation

• Purpose: Add a narrative/personality to CV. Enthusiasm should be clear.
• No place to be modest – weave in publications and prizes.
• You need to convince (and be convinced) that your project is worthwhile and potentially impactful.

Description of institute

• Purpose: Demonstrate feasibility.
• Detail cutting edge equipment and concentrated expertise in SSUs.
• Specify experience available for support and training in research group.
• Almost all grant schemes encourage ‘interdiscipinarity’: IST can provide this (or at least the possibility...)
  – ‘...designed around research groups rather than isolated departments...’
... yet more ‘other’ documents ...

Letter of recommendation

• For fellowships, recommendation/collaboration letters are almost like additional reviews
• ‘Steer’ your referee by providing them:
  • Synopsis of your project
  • Background of host lab
  • Purpose of the program (and why, in your opinion, you/project/host fit this purpose)

Generic request gets a generic response
Person – Place - Project

The **FWF Career Plan** is a chance to demonstrate why your career has not just been serendipitous, but carefully planned to specifically culminate with this project...

FWF Lise Meitner Guidelines instructions:

2.4.3. Annex 3: Career plan

- Career plan to be signed by the applicant and the co-applicant (no more than two pages). This should contain information about the aims of the programme regarding the applicant’s academic development opportunities as well as any potential employment opportunities after the end of the funding period.
The FWF Career Plan is a chance to demonstrate why your career has not just been serendipitous, but carefully planned to specifically culminate with this project...

Potential layout:

Part 1: Applicant Background and Career to Date

- Motivation for pursuing an academic/scientific career
  - Interests, inspirations, curiosity
- Journey so far:
  - PhD research (Why this research?) – any highlights, awards, high-impact papers, noteworthy collaborations, etc.
  - Current Postdoc (Why this specific scientific focus?)
The **FWF Career Plan** is a chance to demonstrate why your career has not just been serendipitous, but carefully planned to specifically culminate with this project...

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**Part 2: The Lise Meitner Programme – Applicant and Institute Benefits**

- How will a Lise Meitner position/the co-applicant’s research group/the proposed project help you develop as a researcher?
  - Learn specific skills/techniques through the new group essential to your future career plans
  - Chance to lead a research project: Planning, execution, mentoring, delegation...
  - Interdisciplinary environment at IST; Facilities; Career development program (see intranet)
  - Mentoring by new Group Leader, who is a world leader in X, and whose previous team members have gone on to X, Y and Z...

- What can you offer the co-applicant’s research group?
  - How your proposal can open up new fields of research for the co-applicant’s research group
  - New research approaches, methods, processes and techniques, collaborations you can bring to the co-applicant’s group
The FWF Career Plan is a chance to demonstrate why your career has not just been serendipitous, but carefully planned to specifically culminate with this project...

Part 3: Post-Lise Meitner

- Which funding opportunities will you be eligible for? What timeline?
  - ERC starting grant? Elise Richter? FWF stand-alone?
- What employment opportunities will you target?
  - Further funding opportunities with current supervisor? Further postdoc? Assistant professor? Industry R&D?
  - Where? Types of institute, e.g. Max Planck, IST-type? What are the characteristics you are looking for in an institute/company?
They are not funding the research/institute, they are funding a person...

In the DOC Fellowship, your letter of motivation is a chance to add a narrative and personality to your CV and proposal. Your enthusiasm for the field and the project should shine through.

- Why you
- Why this project
- Why this supervisor
- Why IST (facilities, collaborators, interdisciplinary Grad School)
- Why this fellowship/program!!
Reviewer Comments (DOC Fellowship): Originality

The proposal is fairly original, though I know of other laboratories interested in this type of question. The biggest concern is that the proposal seems rather overly ambitious for a Ph.D. project. There are many Aims and it’s not clear that all of these will work in the in vitro system. The in vivo validation itself could easily be a Ph.D. project, especially since this involves work with... (Further comments redacted)

Reviewer Comments (DOC Fellowship): Host Institute

The hosting institution, the leading group and co-supervisor provide the perfect environment to perform such a project.

The chosen scientific environment is outstanding. Many of the faculty at the Institute of Science and Technology Austria are recognized internationally as leaders in their respective fields. The applicant will benefit from a vibrant research environment with appropriate mentors and infrastructure for the experimental goals of her project. My feeling is that the quality of the applicant and the potential for mentorship in the chosen environment will compensate for my perceived shortcomings in method selection and project timing.
Guidelines: What info do you need to provide?

Example: DOC Fellowship (Austrian Academy of Sciences)

Suggested structure:

- General aims (defining the problems, state of research)
- Detailed discussion of the problem
- Methodological considerations
- Work steps and timetable (including reasons for requested duration)
- Select bibliography

+ 
- Brief description of the institute
- C.V. & Letter of motivation & Transcripts
- Letter of support and supervisor publication list
Reviewers: What do they need to answer?

Example: DOC Fellowship (Austrian Academy of Sciences)

Reviewer Questions (Grade 1-10):

1. Applicant’s academic qualification and ability to undertake the project
2. Academic quality of the research project
3. Originality of the research project
4. Relevance of the project to the specialist field
5. Clarity of the research questions (hypotheses)
6. Appropriateness of the methodology (including work plan & timetable)
7. Feasibility of the project (institute’s facilities, academic environment)
You are the reviewer...

Where do you find the answers?
Are there extra sections you would like to see?

<table>
<thead>
<tr>
<th>Proposal Structure</th>
<th>Reviewer Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>General aims (defining the problems, state of research)</td>
<td>1. Applicant’s academic qualification and ability to undertake the project</td>
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Mapping Reviewer Questions to Proposal Structure
(i.e. answering the questions for them)

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### Proposal Structure

- **General aims (defining the problems, state of research)**
- **Detailed discussion of the problem**
- **Originality and impact of the project on the field**
- **Methodological considerations & Risk Assess.**
- **Work steps & timetable**
- **Brief description of the institute**
- **C.V., Letter of motivation & Transcripts**
- **Letter of support & Supervisor pub list**

### Reviewer Questions

1. Applicant’s academic qualification and ability to undertake the project
2. Academic quality of the research project
3. Originality of the research project
4. Relevance of the project to the specialist field
5. Clarity of the research questions (hypotheses)
6. Appropriateness of the methodology
7. Feasibility of the project (institute’s facilities, academic environment)
Common GO comments on first drafts...

• Separate the Introduction/State-of-the-Art and your objectives ...

• References will be required in the Introduction/State-of-the-Art ...

• As the aims and objectives only arrive on page 7, I would suggest adding a short intro/pitch to give some context to the rest of the SotA ...

• If you state “Several studies have shown…”, you need to reference something ...

• Add a short summary after the objective: Why is what you propose to do important? What will it tell us? Which disciplines will be impacted?
More GO comments to avoid ...

• Don’t say something is risky and not give a mitigation (e.g. which relevant expertise/experience is available in the group...)

• Detail makes it less generic: tell me which conferences and which journals (you’ll aim for) ...

• Cannot make out numbers in figures/images ...

• Detail is always good – if people are available to help, specific who and their affiliation (e.g. Dr X, Electron Microscopy Facility)
Upcoming ‘career development series’ talks

*What makes taking career decisions easier*
28/04/20 (16:00)

*The importance of teaching for your career*
05/05/20 (16:00)