From failure to success – my MSCA experience

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Who am I?

- Scottish/Irish national but based in Sweden for almost 10 years
- PhD from Stockholm University in October 2022
 - First MSCA application autumn 2023 ~1yr post-defence, unsuccessful
- Postdoc at Umeå University since December 2023
 - Second MSCA application autumn 2024 ~2yr post-defence, successful
- Will begin my MSCA postdoc at UiO in autumn 2025

Studying hybrid speciation and introgression using a natural fungal model system

- Inger Skrede main supervisor Oslo Mycology Group (OMG)
- Life Sciences project how a forest decomposer evolves and hybridises in forests across Europe, and in the lab
- Fieldwork, lab work, bioinformatics
- Contribute molecular biology skills, evolutionary background, analysis skills
- Gain experience in field work (never done!) and improve my genomic analyses skills



My applications

Marie Curie 2023 *Unsuccessful* Project FunHy

- Overall score 77.00%
 - Excellence 3.50
 - Impact 5.00
 - Implementation 3.00
- My first time writing a grant application
- 1 year post-defence

Marie Curie 2024 Successful Project FINESSE

- Overall score 97.80%
 - Excellence 4.90
 - Impact 4.80
 - Implementation 5.00
- No change in publications
- Similar time spent as in the previous year
- Only my second application
- 2 years post-defence

First round timing

- Spring 2023 2nd place in postdoc application to UiO. Let's write a grant!
- Spring 2023 Attended masterclass, begun writing
- Summer 2023 missed deadline for external review but got review internally
- Autumn 2023 chaotic timing with holidays and other postdoc applications, but managed to submit the completed application
- February 2024 rejection, but positive comments. Another round?

Second round timing

- May 2024 attend MSCA masterclass, making changes and writing as I go
- Late June 2024 Full draft complete: sent to external reviewer and took a well-deserved summer holiday ⁽²⁾
- July 2024 got feedback from external reviewer but continued with holidays
- Early August 2024 began rewrite based on extensive feedback
- September 2024 submit completed application with a week to spare

Feedback – round 1

What the reviewers thought of our first MSCA application



Reviewer positives round 1



- "The proposed research is ambitious and clearly moves the field beyond the well-described state of the art"
- Both the supervisor (Inger) and I are well suited for the project
- Impact only positive comments and maximum score

Criterion 1 – Excellence Weaknesses



- "The acquisition of sample collections from different regions and countries via third parties reduces the likelihood that the objectives will be realised" We had not made clear that we were carrying out the fieldwork ourselves
- "The methodologies to be used are not clearly explained." We needed to clearly and specifically explain our methods and terminology
- "The knowledge that the researcher will transfer to the host is not convincingly substantiated with specific measures to foster it" We had not made clear what I would bring and how I would transfer it to the host
- "The training activities are limited to scientific training within the host group. Although a
 "Postdoctoral Career Success Programme" at the host university is mentioned, it is not clear
 how the researcher will take advantage of it, particularly regarding transferable skills" We
 were not clear as to the extra training I would get when, and how I would improve my
 non-scientific skills

Criterion 3 – implementation weaknesses

- "The workplan has insufficiently described deliverables and milestones, and the effort assigned to each WP is not adequately justified" We had not made clear our working packages and maybe needed a bit of a rethink on them
- "While an explicit contingency plan is provided, the identification, probability and the severity of certain risks are underestimated" We needed to justify our risks and maybe err more on overestimating than underestimating the risks

What I changed for round 2

Based on feedback from first application and external reviewer



Things that stayed the same

- Publications no new publications in these 12 months
- Was working while writing both times
 - No huge break to focus on writing
- Experience broadly similar
 - 1 year extra and employed as a postdoc for part of this
- No massive change in skillset
- Didn't spend loads of extra time for the successful application
 - But better forward planning around timing of meetings, feedback and writing



Things I did differently - content

- The project content and experiments were broadly the same
 - Went from 4 to 3 scientific working packages
 - Same themes and ideas
- More clear explanations
 - No misunderstandings about fieldwork, made clear we would carry it out
 - Clearly worded the exact ways in which we would carry out the work rather than more vague explanations
 - Probably the most time was spent planning and writing the specifics for each project and objective
- More time and extra space in the application for other training activities

Things I did differently - structure



- Changed the structure of our working packages (WP)
 - Included 3 scientific working packages (4 was too many)
 - Included 3 other packages related to project management, training, and communication and dissemination
- WPs put into table including their tasks, and milestones/deliverables
- Risks made sure they were clear and not underestimated

Each WP is split into several tasks

Milestones and deliverables were stated clearly here

	WPs	Tasks	Milestones/Deliverables
Science WPs	WP1 Atlantic population field study	 T1.a Collect field samples T1.b Culture field samples T1.c Prepare samples for sequencing T1.d Sequencing T1.e Sequencing analyses T1.f Writing and publication 	 M1. Completion of all field sample collections D1. Report on analysis of samples collected from first year's field season
	WP2 Hybrid growth and sequencing	 T2.a Generate hybrids in lab T2.b Measure growth of populations T2.c Analyse growth data T2.d Prepare samples for sequencing T2.e DNA extraction and sequencing T2.f Sequencing analyses T2.g Writing and publication 	 M2a. All hybrids have been generated M2b. All hybrids have been sequenced D2a. Report on growth phenotypes of hybrids D2b. Report on hybrid sequence analyses
	WP3 Hybrid transformation	T3.a Identification of potential target genes T3.b CRISPR-Cas9 transformations T3.c Growth measurements T3.d Writing and publication	M3. Completion of all genetic transformations D3. Summary of transformed strains and growth patterns
WP just for project management	WP4 Project management	T4. General project management	M4. Completion of deliverable D1 D4a. Mobility declaration D4b. Evaluation questionnaire D4c. Data management plan D4d. Research dissemination
WP for training	WP5 Training	T5.a Bioinformatics training T5.b CRISPR-Cas9 training T5.c Postdoc career success programme T5.d Other training	M5. Completion of CRISPR-Cas9 training D5. Career development plan
WP for communication and dissemination	WP6 Communication and dissemination	T6.a Webpage upkeep T6.b Outreach T6.c Conferences	M6. Create webpage on uio.no D6. Update on outcome of planned outreach activities

Other things I did differently



- Better planning of time writing
 - Getting complete draft before summer for external folk
 - Timing around summer holidays (not needing feedback in July)
- Taking time during working hours to write application
 - May be dependent on your current situation
- Had a decent draft to work off of
 - The first application really helped as a template –nothing is wasted!

What you can think about when writing

- Make everything clear to read
 - Don't assume the reviewer will magically know what you mean
- Be specific in what your methods and techniques are
 - Specific is better than vague
- Timing and planning are important
 - Remember that Nordic folk like their summer holidays
- Getting external or internal reviews are important
 - Someone outside of you and your supervisor to look at the application
- Writing applications is tiring, so look after yourself!

Any Questions?

Cheers for listening!

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