



MED workshop

Early stage researchers

MED Research advisors

4. February 2020

UNIVERSITY OF BERGEN



Programme



Marc Vaudel (RCN FRIPRO Young Research Talents)

Ane Johannessen (RCN BEDREHELSE)

Building your academic CV

Statistics and feedback from RCN

Overview of relevant programmes for early stage researchers and upcoming deadlines

Concluding remarks





How to get an application rejected

Marc Vaudel

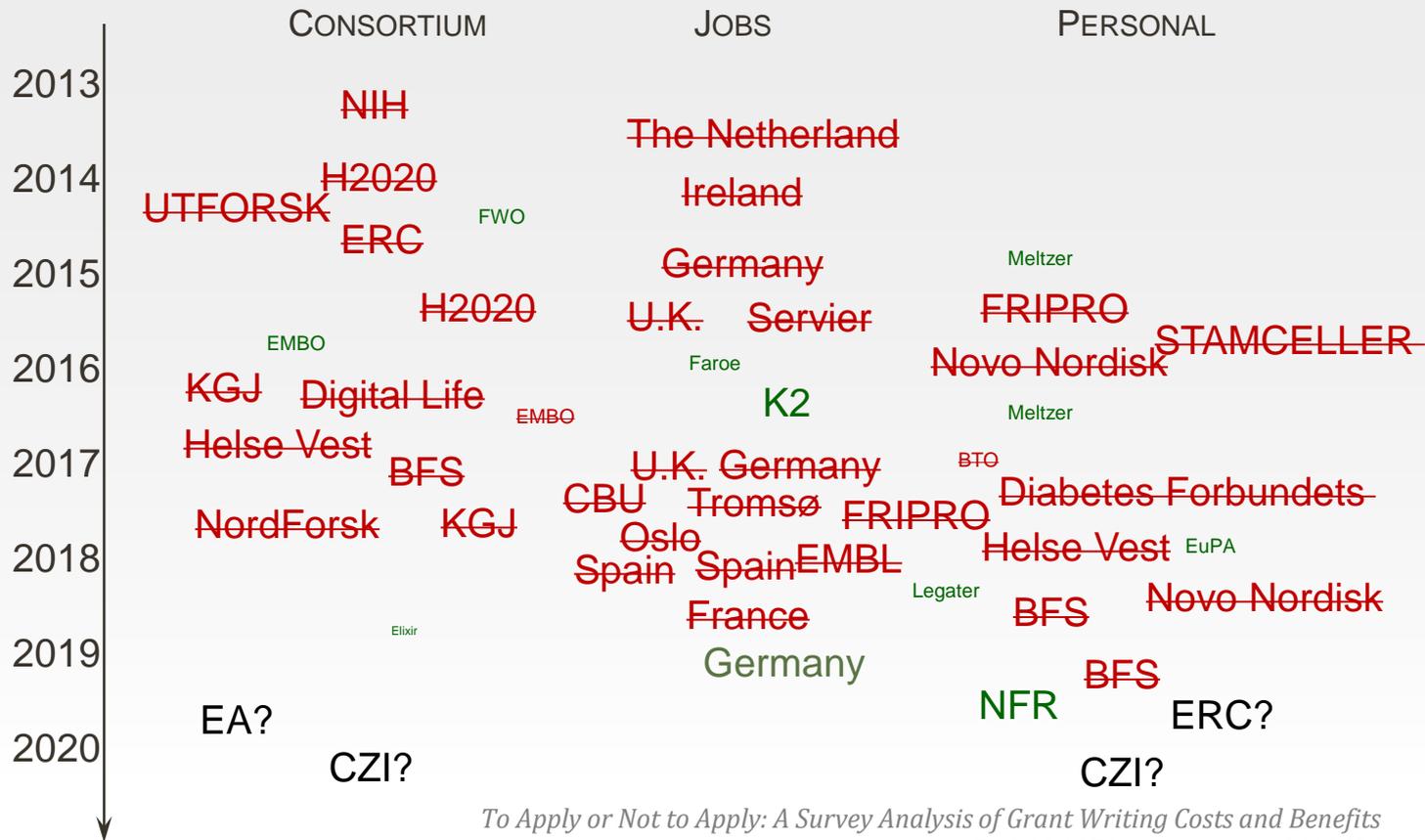
Researcher, Center for Diabetes Research, K2, UiB

UNIVERSITY OF BERGEN



Rejection Track Record

➔ Massive time, energy, and health investment



To Apply or Not to Apply: A Survey Analysis of Grant Writing Costs and Benefits
DOI:10.1371/journal.pone.0118494



Get to know the funding system

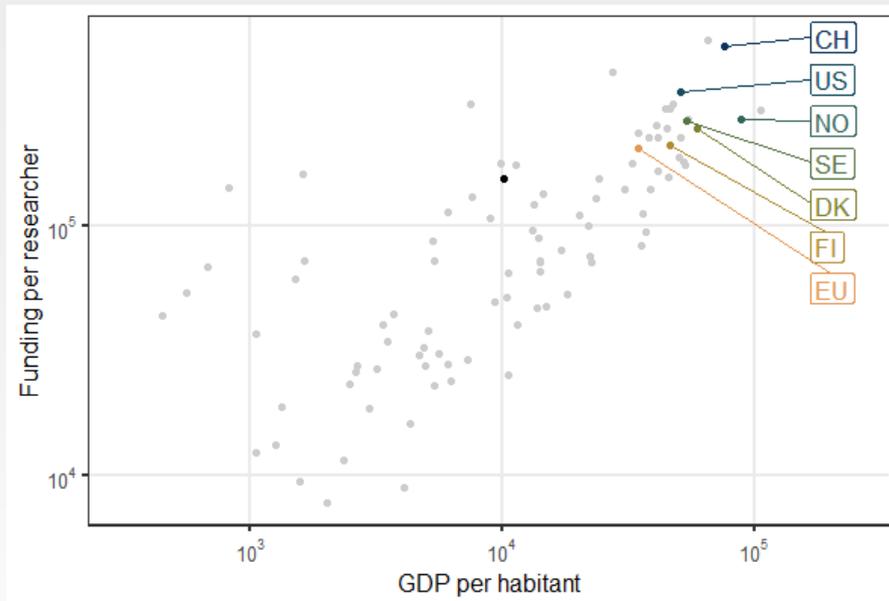


➔ Each grant has different evaluation procedure



Funding Worldwide

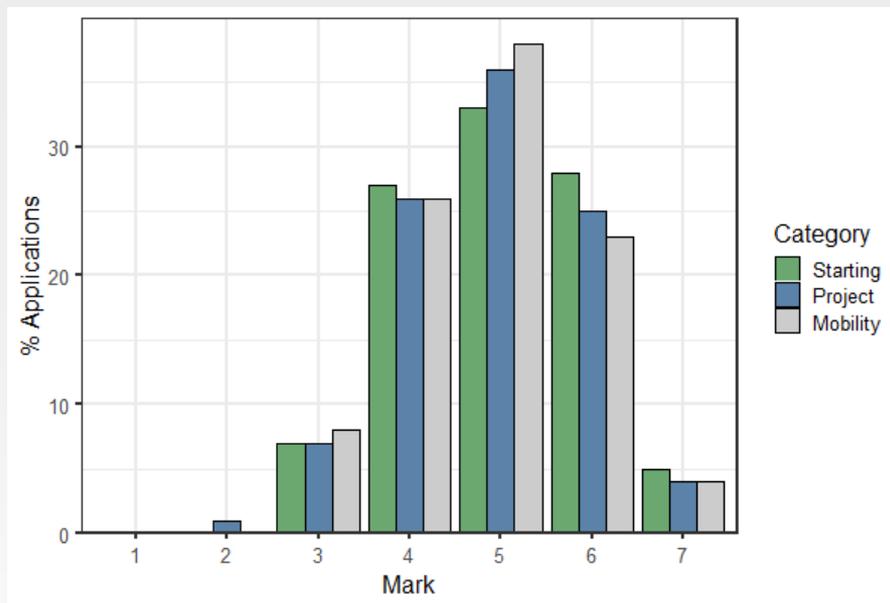
➔ 2010-2019 average, 2010 stable USD, log scale



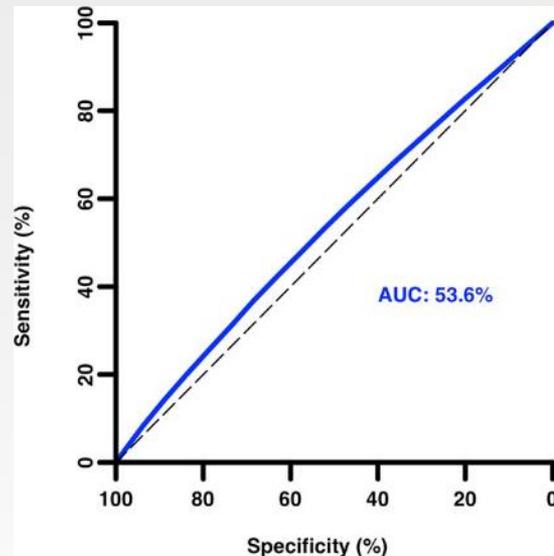
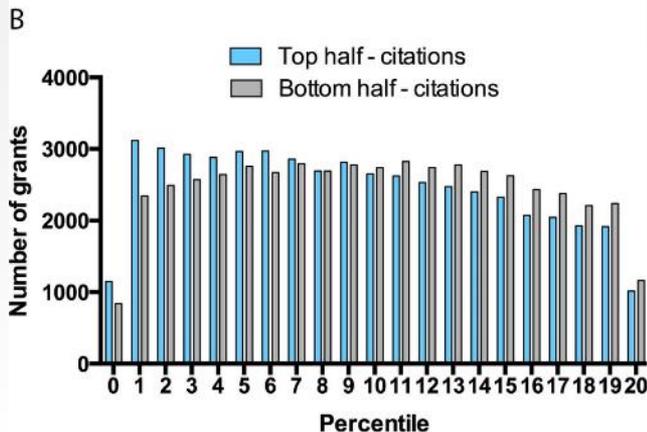
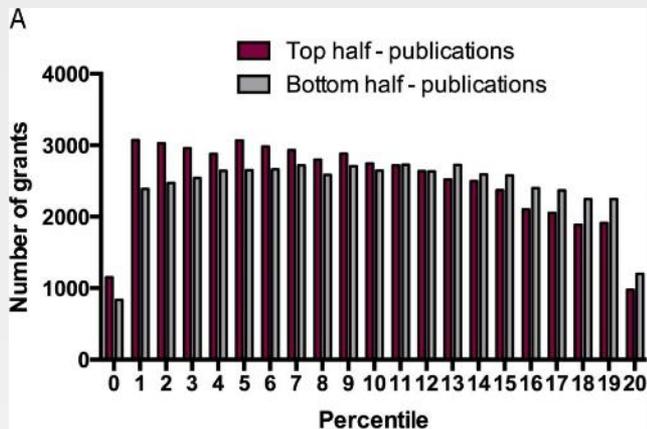
2019 NFR Marks



➔ 1: worst, 7: best



Efficiency of Grant Application Scores

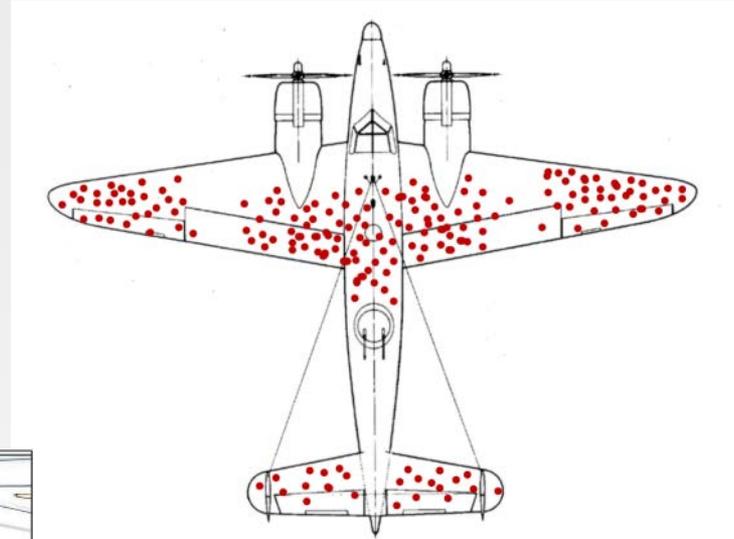


Research: NIH peer review percentile scores are poorly predictive of grant productivity
10.7554/eLife.13323



What makes the difference between a 6 and a 7?

- ➔ Read applications from others
- ➔ Review grants



Wikipedia - McGeddon

*Low agreement among reviewers evaluating the same NIH grant applications
10.1073/pnas.1714379115*



Getting Feedback



➔ Reviewers are excellent scientists trying to do the right thing.

“This reviewer is an has no clue about it”

“They missed the point”

“Bothered about non-relevant details”

“You did not provide enough background”

“You were not clear”

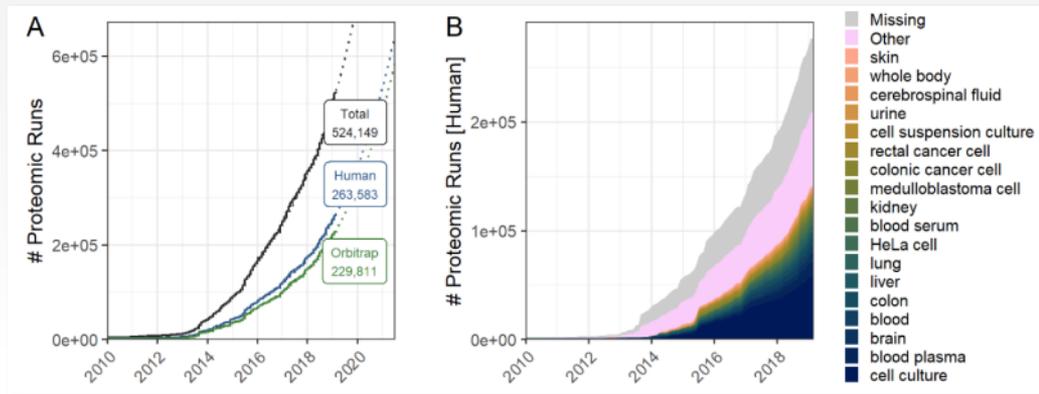
“You did not show what is important and not”

➔ If someone has a doubt, there is a chance that the reviewer will have it.

“How much data, what quality?”

“What organism / tissue?”

“This database is a mess!”

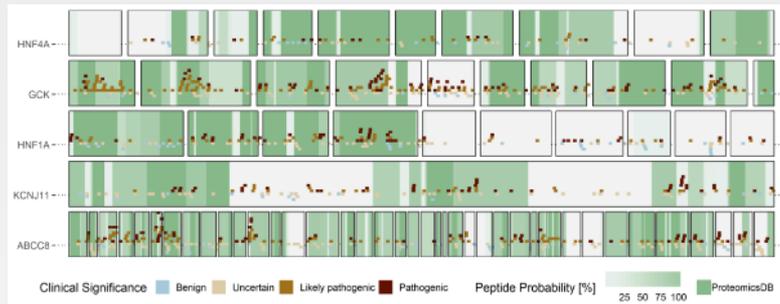


Conveying your vision



➔ The reader must see the paper writing itself.

- Clear and detailed introduction
- Preliminary data and envisioned results
- Methods section identifying missing steps
- Discussion on impact and field evolution



➔ The reader must come to the conclusion by themselves.

“My project is worth funding because...”

“Based on this, I will do this, and it will yield this.”

➔ Structure, rigor, clarity are key.

It is not clear how this will happen.

Stick to the essential, stick to the facts.



Unique and Self-contained



➔ If someone else can scoop you, you are not unique.

“I have an outstanding track record at...”

“This project will take the field in a new direction.”



➔ “You need to master at least three scientific disciplines.” Prof. Jose Florez

Prioritization of variants?

False-discovery rate?



Moved to a clinical/genomics group

Stay abroad and network building

➔ Yes but...

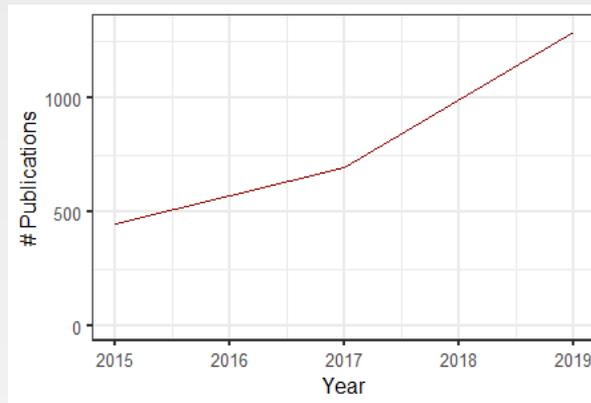
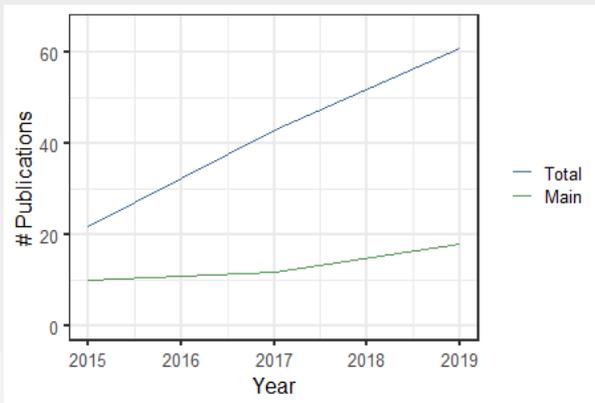
Consequence of false discovery in WP3?



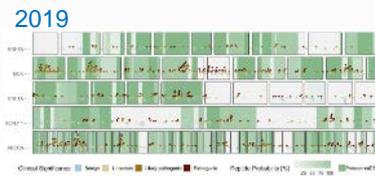
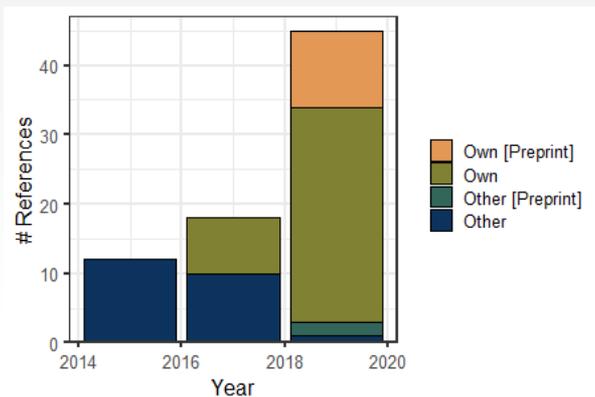
Scientific Excellence



➔ Not corrected for career stage.

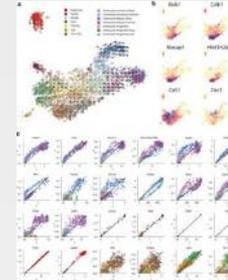
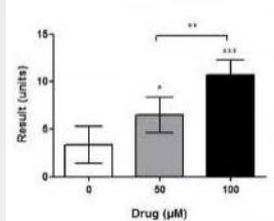


➔ Mastering your scientific niche.



Funding Tomorrow's Scientists

➔ Mastering basic scientific skills.



➔ Values that will shape the future of science.

“I have this great paper in [glittery journal]...”

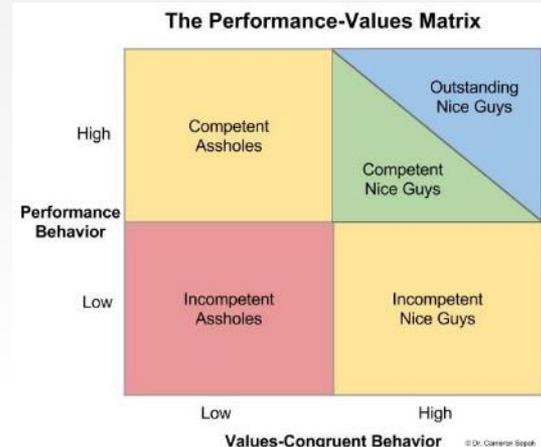
“H-index according to [predatory publisher]...”

“I am the best in my field...”

“I generated these data.”

“Impact measured transparently using...”

“I deliver this to the community/society...”



What about the 95%?

➔ There are other sources of funding.

ROBERT KOCH INSTITUT

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Geisteswissenschaften | Life Sciences | Suchaufbau

Institut | Gesundheitsmonitoring | Infektionsschutz | Forschung | Kommissionen | Service

Erste Erkrankungen durch das neuartige Coronavirus in Deutschland

Das Robert Koch-Institut (RKI) hat die ersten Fälle von neuem Coronavirus (COVID-19) in Deutschland bestätigt. Die Infektionen stammten laut RKI von einem Mann, der am 12. März aus Italien zurückgekehrt ist. Die ersten Fälle wurden am 16. März in Berlin und am 17. März in Köln bestätigt.

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Die Robert Koch-Institute sind die zentrale Anlaufstelle für alle Fragen, die mit dem Coronavirus zusammenhängen. Sie sind die zentrale Anlaufstelle für alle Fragen, die mit dem Coronavirus zusammenhängen.

Wichtigste Informationen

- Informationen zum Coronavirus (COVID-19) sind auf der Website des Robert Koch-Instituts verfügbar.
- Informationen zu COVID-19 sind auf der Website des Robert Koch-Instituts verfügbar.
- Informationen zu COVID-19 sind auf der Website des Robert Koch-Instituts verfügbar.

Artikel des Monats

- 16. März 2020: Erste Fälle von COVID-19 in Deutschland
- 17. März 2020: Erste Fälle von COVID-19 in Köln
- 18. März 2020: Erste Fälle von COVID-19 in Berlin
- 19. März 2020: Erste Fälle von COVID-19 in Hamburg
- 20. März 2020: Erste Fälle von COVID-19 in München

➔ There are countless ways to drive a scientific career.



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➔ Doing something else is **not** failing.

Scientists / Our Scientists

MARK MCCARTHY

Senior Director and Staff Scientist, Human Genetics

Postdoc Mentor
Staff Scientist

"I am excited about the opportunities that human genetics offers to better understand the biology of disease, and guide us to improved approaches to treatment and prevention."

1 Years at Genentech

6 Awards & Honors

Verve Team

Verve has been purpose-built for the task ahead, with a founding team of world-leading experts in cardiovascular medicine and patient care, cardiovascular genetics, gene editing delivery technology and safety, drug development, and company building.

Gene Discovery | Gene Editing | Patient Care | Gene Activity | Drug Development | Cardiovascular Genetics

Verve Expertise

Sekar Kathiresan, M.D.
Kian Moulamou, M.D., Ph.D., MPH
J. Keith Joung, M.D., Ph.D.
Anthony Muppugala, M.D., Ph.D.



It takes a village to build a scientific project





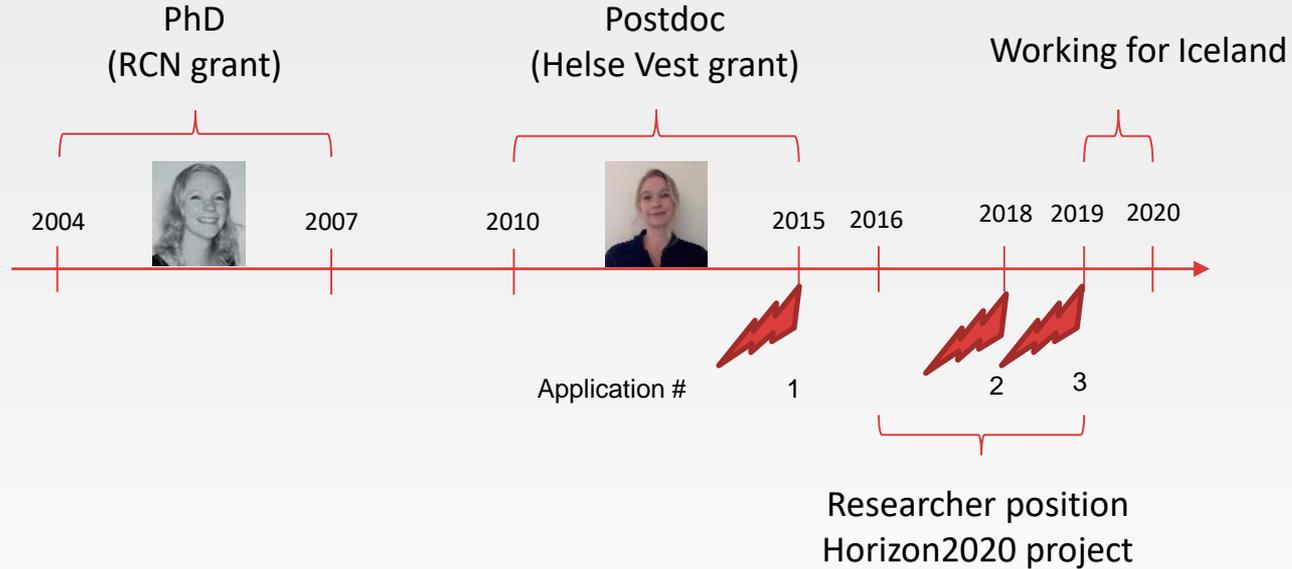
The long journey from application to funding

Ane Johannessen
Associate Professor, IGS, UiB

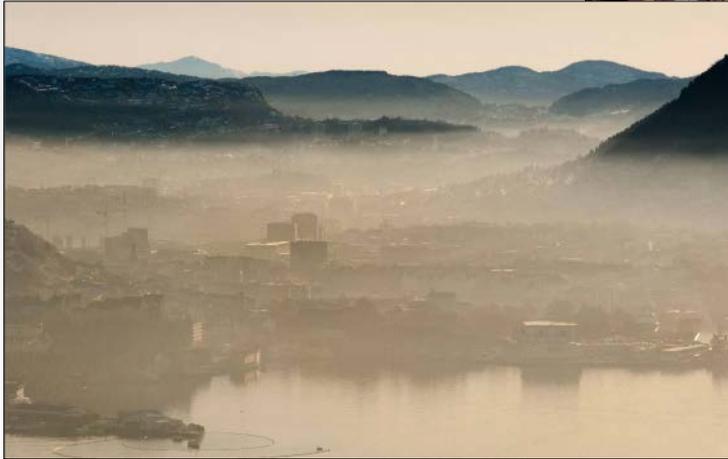
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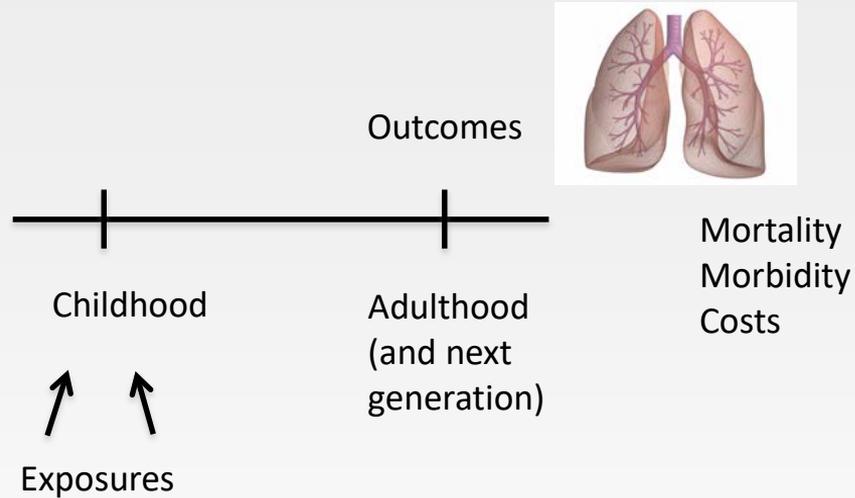
Background



Background



Aim of the project



Evaluations from RCN



2015 Overall grade 6: Excellent

2018 Overall grade 4: Good

2019 Overall grade 6: Excellent



Evaluations from RCN: 6-4-6



Why did I not get funded the first time?

Just as good a grade as the third time...

What happened the second time??

A drop in grade from 6 to 4!

Why did I get funding the third time?

Not a higher grade than the first time around...



First application, 2015



Overall 6: excellent 😊

Only two negative remarks:

- *The project manager is at a slightly earlier stage in her career than many applicants to this funding scheme.*
- *The emphasis is very much on the scientific papers which will be written. More thought could be given to communicating with a broader audience.*

Other than that:

- *Ambitious...solid...strong international dimension...clear*
- *...all the necessary skills.*
- *...a significant expansion of knowledge can be anticipated.*



Second application, 2018



Overall 4: good 😞

Negative remarks:

- *...not always clear which data are used for which research question*
- *...plans for some of the analyses are lacking*
- *... project group lacks expertise on the pre- and perinatal period and on health technology assessment*
- *... PI has limited experience as research leader and supervisor*

Other than that:

- *Linkage of multiple valuable data sources is a great strength of this project... Important implications for public health...*
- *Project plan is well organized.*



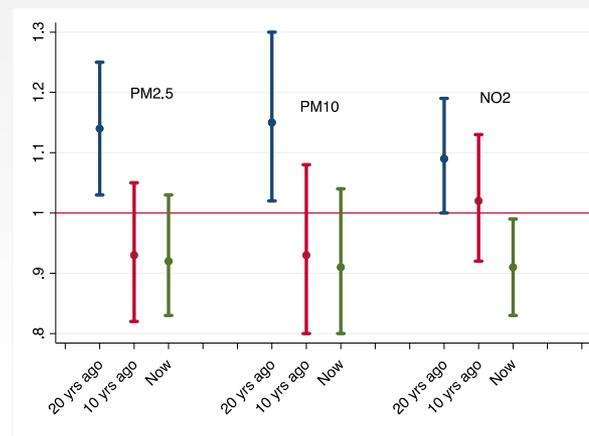
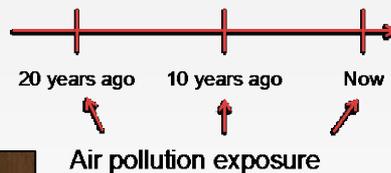
Preliminary results



ERS Best abstract award 2018

Mean exposure (range) $\mu\text{g}/\text{m}^3$	1990	2000	2010	EU limit values (annual) $\mu\text{g}/\text{m}^3$
PM _{2.5}	9.3 (0.2, 16.6)	9.2 (0.2, 17.5)	9.1 (0.1, 18.9)	25
PM ₁₀	14.1 (7.9, 22.8)	14.0 (7.9, 24.6)	13.9 (8.3, 23.3)	40
NO ₂	18.7 (6.3, 40.4)	18.1 (6.3, 70.0)	16.4 (0.1, 49.9)	40

Sick leave



Third application, 2019



Overall 6: excellent 😊

Negative remarks:

- *...minor shortcomings, including insufficient details of research methodology for intergenerational component*
- *...project organisation would benefit from more detail and clarity*

Positive remarks:

- *...clear strengths including innovative and clear research aims and audible targets*
- *...strong potential academic impacts, as well as clearly outlined multiple societal impacts that address multiple UN Sustainable development goals...*
- *The PI, supported by a large international collaborative team, have a clear track record, expertise, and on-going involvement in relevant efforts to tackle this project.*



Evaluations from RCN: 6-4-6



Why did I not get funded the first time?

FRIPRO Young Research Talents funding scheme: nice try, but first attempt

What happened the second time??

Moved from FRIPRO Young Research talents to **FRIPRO Researcher Project**, a whole different class of competition 😊
+ my attempts to improve application made it too complex and fragmented and I lost the good story...

Why did I get funding the third time?

BEDREHELSE Researcher Project : 10 of 112 applications, success rate 9%. → **Funded**

A much improved application, with MUCH time spent. Focus on good story, SDGs, users, public health benefits. Great help from Ramune 😊





Advice for good applications (1)



- It takes time!!!
- Read the call, everything in it should be answered.
- Take walks in mountains or forests for inspiration.
- Have a notebook by your bedside
- Get the best collaborators



Advice for good applications (2)



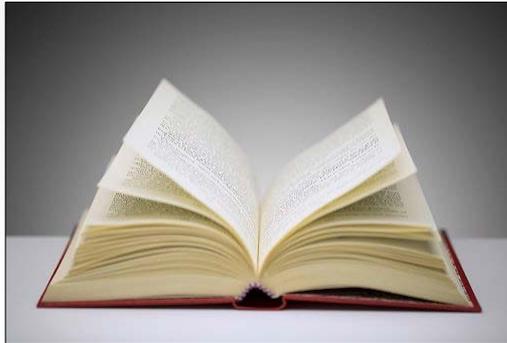
- Involve users
- Address SDGs
- Clear hypotheses
- Solid methodology
- Preliminary results



Advice for good applications (3)



- Use UiB help resources, they give excellent advice 😊
- Focus on society impact (often coincide with SDGs)
- Take care to tell a great story, with no loose ends.





Building your academic CV

Amra Grudic-Feta
MED Research advisor

UNIVERSITY OF BERGEN



Session outline



Your CV and track record

Practical tips to strengthen your CV



CV template from RCN

Early stage researchers



- Role in the Project
- Personal information
- Education
- Positions

(if applicable)

- Fellowships, Awards and Prizes
- Mobility
- Project management experience
- Supervision of graduate students and research fellows
- Teaching activities
- Organisation of meetings
- Institutional responsibilities
- Commissions of Trust in academic, public or private organisations
- Memberships of academic / scientific societies / network
- Major collaborations
- **(Early achievement) track record**



Academic skills to develop



Research independence

Why it matters:

- To develop a research programme of your own.
- Difficult to succeed as a copy/paste version of your PI.

Measured by:

- Developing your research/ideas.
- Publications without supervisor.
- Grants and/or awards won on your research idea.
- Time spent with different research groups.
- Develop a network independent of your supervisor.



Academic skills to develop



Research independence

Tips to increase your research independence:

- Create a publication strategy – need main/corresponding author papers without your PI/supervisor.
- Attend conferences in your field and build new collaborations.
- Develop your own research ideas as a side project.
- Engage a master student, PhD, “forskerlinje” on the side project.
- Write a review and invite relevant researchers as co-authors.



Academic skills to develop



Mobility

Why it matters:

- Acquire new skills, techniques and insights.
- Advantage against competitors.
- A high-quality research group/institution allows you to learn from leaders in your field.
- Develops your network.
- Develops your independence.

Measured by:

- Time spent at other institutions.
- Short or long term.
- Preferably outside Norway.



Academic skills to develop



Mobility

Tips to increase your mobility:

- Consider long-term opportunities.
- At least do short-term visits.
- Plan your stay-abroad. How will you grow? What do you want to gain?
- Research funding opportunities – many fellowships offer stipends for stays abroad, also to bring family.



Academic skills to develop



Network

Why it matters:

- Locate yourself within your research community.
- Develops independence.
- Invited to join groups.
- Invited to speak at conferences.
- Invited to join projects.

Measured by:

- Membership of professional networks and societies.
- Time spent at other labs.
- Active research collaborations.



Academic skills to develop



Network

Tips to increase your network:

- Attend seminars, symposia and prestigious conferences – present whenever possible.
- Do not shy away from dinners and social arena.
- Participate in academic and disciplinary communities online.
- Develop or help to organize events – workshops, seminars, conferences, summer schools.
- Attend information events at UiB, Research Council of Norway, Brussels (ou will get to know the funding landscape and meet potential partners and collaborators).



Academic skills to develop



Excellence

Why it matters:

- Measures of esteem.
- Core skills and areas of expertise.

Measured by:

- Publication record.
- Creativity/novelty of your research.
- Scholarships/fellowships/grants awarded.
- Awards, honours, prizes.
- Invited talks.
- Membership of esteemed societies.



Academic skills to develop



Excellence

Tips to increase your track record:

Publishing

- Aim for high quality, high impact publications according to standards of your discipline.
- Plan the number of publications you plan to publish and work backwards.
- Larger, collaborative studies generate stronger publications.
- Negotiate authorship.
- Plan publications without your PhD supervisor.

Awards, honours, prizes

- Research relevant opportunities – Meltzer, Faculty of medicine, Anders Jahres, RCN.
- Apply!



Academic skills to develop



Excellence

Tips to increase your track record:

Grants awarded

- Fellowships.
- Travel grants.
- Project funding.
- Become a co-investigator and help to develop and write the proposal.
- Target smaller, less competitive pots before applying for larger grants (SPIRE, Meltzer, [Peder Sæther](#), EMBO).
- Department newsletters.

Membership of esteemed societies

Join! Many societies are open to members to join.





Evaluation of RCN 2019

Ramune Midttveit

MED Research advisor

UNIVERSITY OF BERGEN



RCN - FRIPRO



!!! FRIPRO is high-risk/high-gain approach !!!

Evaluation criteria:

1. Excellence
2. Impact
3. Implementation

[Experts who have reviewed applications](#)

[The evaluation Process](#)



Some FRIPRO statistics



Application type	2018		2017		2016	
	Applications	Awarded funding	Applications	Awarded funding	Applications	Awarded funding
Researcher projects	811	7%	767	8%	788	8%
Young Research Talents	376	9%	398	9%	353	13%
Mobility Grants	92	16%	70	20%	75	20%
Total	1279	8%	1235	9%	1216	10%



FRIPRO statistics 2019



Researcher Projects

2303 grant applications assessed → 261 grant applications awarded funding

Success rate = 11.3 %

Grade	7	6	5	4	3	2	1
Percent	4	25	36	26	7	1	0



FRIPRO statistics 2019



Young Research Talents

467 grant applications assessed → 55 grant applications awarded funding

Success rate = 11.7 %

Grade	7	6	5	4	3	2	1
Percent	5	28	33	27	7	0	0



FRIPRO statistics 2019



Mobility grants

114 grant applications assessed → 12 grant applications awarded funding

Success rate = 10.5 %

Grade	7	6	5	4	3	2	1
Percent	4	23	38	26	8	0	0





Mapping the funding landscape

Michaël Marie
MED Research advisor

UNIVERSITY OF BERGEN



Funding schemes



FRIPRO

- Mobility Grant
- Young Research Talents



Horizon 2020

- Marie Skłodowska-Curie Individual Fellowships
- ERC Starting Grant



Trond Mohn Foundation

- TMS Starting Grant



Mobility Grants



FRIPRO

- Mobility Grant
- Young Research Talents



Horizon 2020

- Marie Skłodowska-Curie Individual Fellowships
- ERC Starting Grant



Trond Mohn Foundation

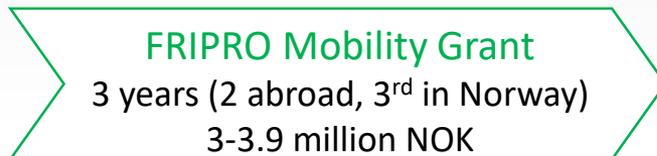
- TMS Starting Grant





FRIPRO International Mobility Grant - Call

- Researchers *very early* in their career (recently defended or will soon defend their PhD dissertation). You may only receive funding once.
- As of the application submission deadline, you may not have lived or worked in the country in which the host institution abroad is located for more than 12 months in the past 3 years.
- You must be employed by the Project Owner (Norwegian research organization – must have authorized the submission of the grant application) for the entire duration of the project period.



Success rate:
15-20 % previous years





FRIPRO International Mobility Grant

- Assessment criteria based on the criteria in Marie Skłodowska-Curie Individual Fellowship (MSCA-IF) → make it easier for applicants to submit their application both to FRIPRO and MSCA-IF.

Excellence	Impact	Quality and efficiency of the implementation
50%	30%	20%

- Since 2014, 71 Mobility Grants have been funded under the FRIPRO programme.





Marie Skłodowska-Curie Individual Fellowships (MSCA-IF) - [Call](#)

- Open to *all career stages and nationalities*.
- Support the *career development and training* of researchers in all scientific disciplines through international, intersectoral mobility.
- Provide opportunities to acquire/develop *new knowledge* (interdisciplinary) and enhancement of *skills*.





Marie Skłodowska-Curie Individual Fellowships (MSCA-IF)

Standard European Fellowships (MSCA-IF-EF-ST)

- Researchers moving *within/to Europe*.
- Restart a research career after a break (e.g. parental leave) / Help researchers coming back to Europe find a new position.
- Held in the EU or associated countries.

Global Fellowships (MSCA-IF-GF)

- Fund positions *outside Europe* for researchers based in the EU or associated countries.
- The researcher has to come back for 1 year to an organisation based in the EU or associated countries.

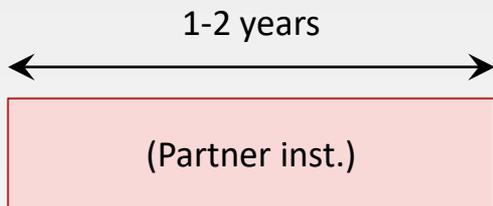
Can also include a *secondment period* of up to 3-6 months in another organisation in Europe.



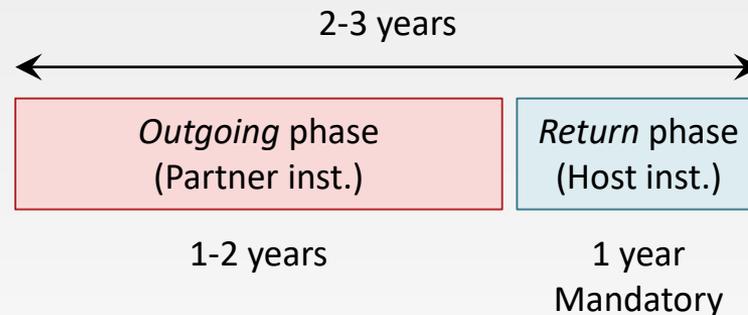


Marie Skłodowska-Curie Individual Fellowships (MSCA-IF)

Standard European Fellowships (MSCA-IF-EF-ST)



Global Fellowships (MSCA-IF-GF)



Starting Grants



FRIPRO

- Mobility Grant
- Young Research Talents



Horizon 2020

- Marie Skłodowska-Curie Individual Fellowships
- ERC Starting Grant



Trond Mohn Foundation

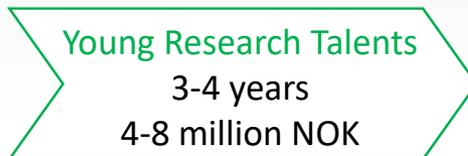
- TMS Starting Grant





FRIPRO Young Research Talents - [Call](#)

- Young researchers with a *little experience* after their PhD. You may apply up to 3 times and only receive funding once.
- *Younger than 40 years old* at the application submission deadline (b. 7. May 1980 or later). Most applicants: 25-39 years old.
- Employed in your main position by the Project Owner (applicant organisation) and must dedicate at least 50% of the research component of your position to the project.



Success rate:
9-13 % previous years





FRIPRO Young Research Talents

Project manager:

- Completed a postdoc and/or held a research position after completing a PhD.
- Distinguished him/herself and shown significant talent during graduate studies and as a doctoral and postdoctoral fellow or researcher.
- May hold a permanent research position (e.g. Associate Professor) or may be without a position at a research organisation when applying.
- High potential for success as an *independent researcher*, supervisor and manager.
- Gain experience *leading* a research project and *supervising* PhD and/or postdoc fellows.



European Research Council (ERC) Starting Grant - Call

- Aimed at «high-risk, high-gain» projects.
- Support excellent, individual PIs starting their *own independent research team* or programme (should have produced at least one important publication as main author or without the participation of his/her PhD supervisor).
- *Scientific excellence* is the sole criterion of evaluation (demonstrate the ground-breaking nature, ambition and feasibility of the scientific proposal + researcher's intellectual capacity, creativity, commitment and early achievement track record).



Success rate:
12-29 % previous years



Trond Mohn Foundation (TMS) Starting Grant - [Call](#)

- Support to young researchers to develop into successful research leaders by providing *long-term funding for own salary and staff*.
- Aid UiB in attracting and retaining excellent young scholars in *research areas in line with UiB's strategies and priorities* and where the university foresees recruitment needs within the next 4 years.
- The nominating faculty is required to *announce a permanent faculty position within the grantees' field of research*, before the end of the 4-year project period.
- TMS encourages the university to nominate candidates currently based outside of Norway.

Trond Mohn Foundation (TMS) Starting Grant

Eligibility:

- Candidates who hold a *permanent position* as an Associate Professor or professor at UiB are *not eligible* for nomination.
- Only candidates nominated by a faculty at UiB may apply. A candidate *cannot be nominated two consecutive years*.
- Candidates who *have reached the age of 40 by 16 March 2020* are normally *not eligible*.
- The *age limit may be extended* for a maximum of 2 years (parental leave, long-term illness or clinical training or national service).

Trond Mohn Foundation (TMS) Starting Grant

- *Two-step submission* and selection process:
 - Step 1: Prequalification (Cover page / Project description (3 pages) / Budget / CV / Commitment letter from the host faculty)
 - Step 2: Final (full) proposal and interview
- *Successful candidates are expected to pursue additional competitive funding opportunities* (e.g. EU funding) during the project period.



Other funding schemes





Career fellowship – Helse Vest

- To help younger, outstanding researchers to *build up their own research environment*.
- Covers the salary of:
 - One's own position – 4 years, 100 % position*.
 - A fellowship (PhD or post-doc) – 3 years, 100 %*.
 - Additional operating funds.
- For researchers under 45 years of age (b. 1975 or later).
- Potential candidates must have demonstrated a *high degree of independence*.

[Guidelines for career fellowship](#)

* NOK 2,3 million/year for 3 years, and up to 1,2 NOK the last year





Network and Mobility





Strategic Programme for International Research Collaboration - SPIRE

Aim:

Internationalization as means to strengthen research quality.

Applicants:

Scientific staff (min. 50% at UiB), researchers (hold a PhD) and post-docs* (100% at UiB)

* Can apply with more than 1 year remaining of their contract (employed min. 2 years at UiB).

Two types:

- *Network building*: workshops, conferences, travel, etc.
- *Guest researchers*: invite international researchers for 1-3 months.





Research stay abroad / Mobility grants



The Faculty of Medicine - Postdoctoral fellows with UiB funding:

Granted for stays 3-12 months. Deadlines: 1 March and 1 October.



Helse Vest:

Granted for 6 or 12 months. *Postdoctoral fellowship applicants are especially encouraged to apply for an overseas fellowship over the course of their fellowship period.* Continuing deadline.



Research Council of Norway:

Granted for 3-12 months. Continuing deadline.



European Molecular Biology Organization:

- Short term: fund research exchanges of up to 3 months.
- Long-term: awarded for a period of up to 2 years and support post-doctoral research visits to laboratories throughout Europe and the world.





Funds and Trusts

- Funds and Trusts that support medical research.
- Support for travel and smaller projects.
- For the academic staff, including PhD-candidates and post-docs.
- Include a budget.

1. December: [Meltzer Research Fund](#)

1. December: [Bergen University funds](#)

UiB application system for funds: <https://fond.app.uib.no/>



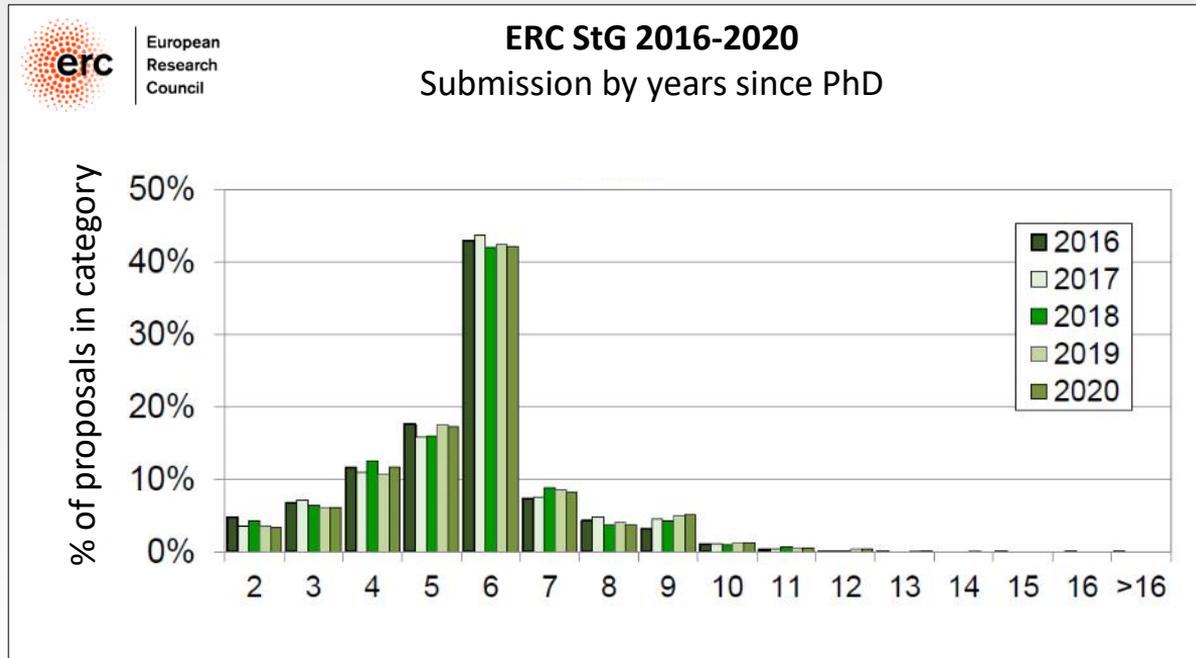
How to succeed with applications?



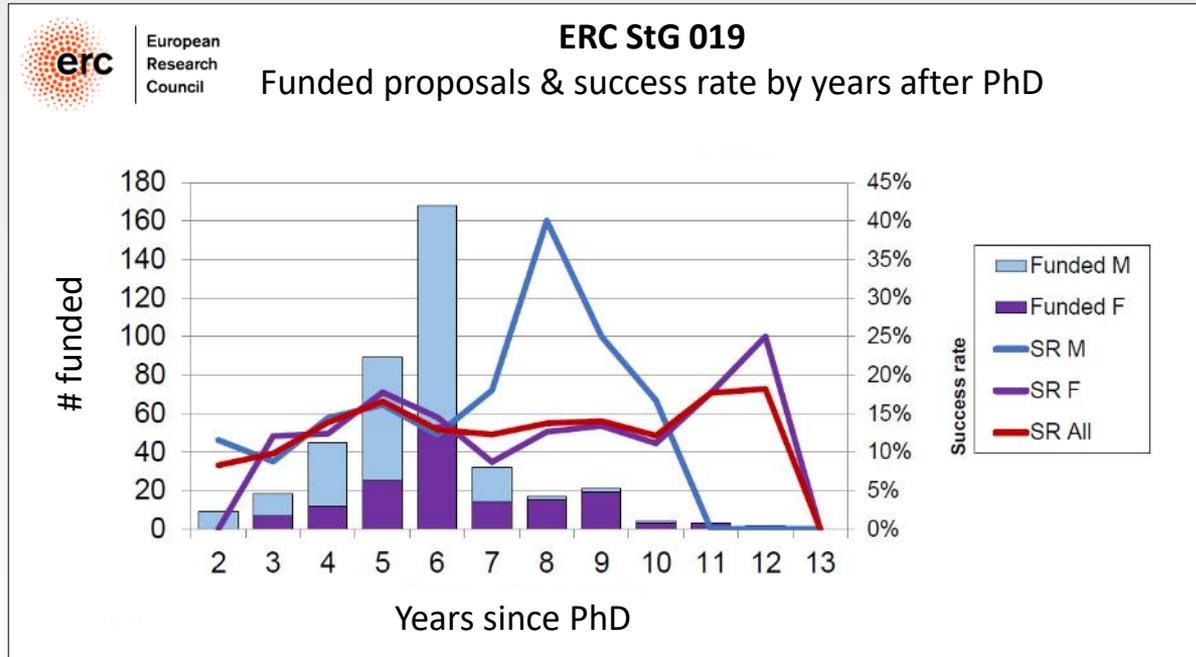
- Build your CV with first author publications, senior publications or high impact publications.
- Mobility – to show willingness to travel, to build your international network.
- Include partners from international institutions into your application.
- Ability to raise funding – e.g. your personal postdoc/researcher position, mobility grants, funds,...
- Innovative research, high scientific quality, a track record.
- Dissemination – on seminars, conferences, etc.
- Support for writing the application.



How to succeed with applications?



How to succeed with applications?



Research advisors at MED



External funding opportunities for researchers

MEDforsk@uib.no

Andreas Westermoen

MED, Innovation

Andreas.Westermoen@uib.no

Michaël Marie

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Thank you!



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