



FORTH

INSTITUTE OF MOLECULAR BIOLOGY & BIOTECHNOLOGY

Best practices for securing funding

Panayiota Poirazi, PhD

Research Director

www.dendrites.gr

Why do we need funding ?

Necessary to get the science done



One of the success criteria for career evaluations

Key performance indicator (KPI)



How do you feel about funding ?



Is it really a burden ?

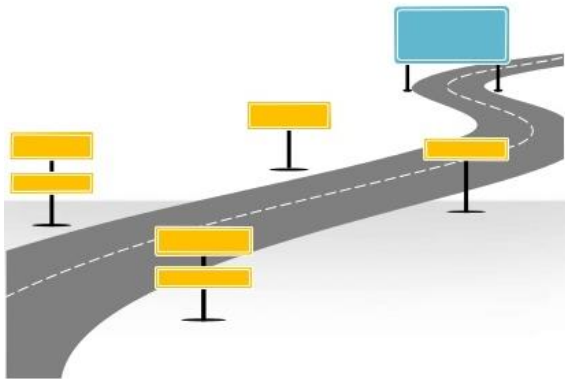
How do you feel about funding ?

Is it an opportunity ?

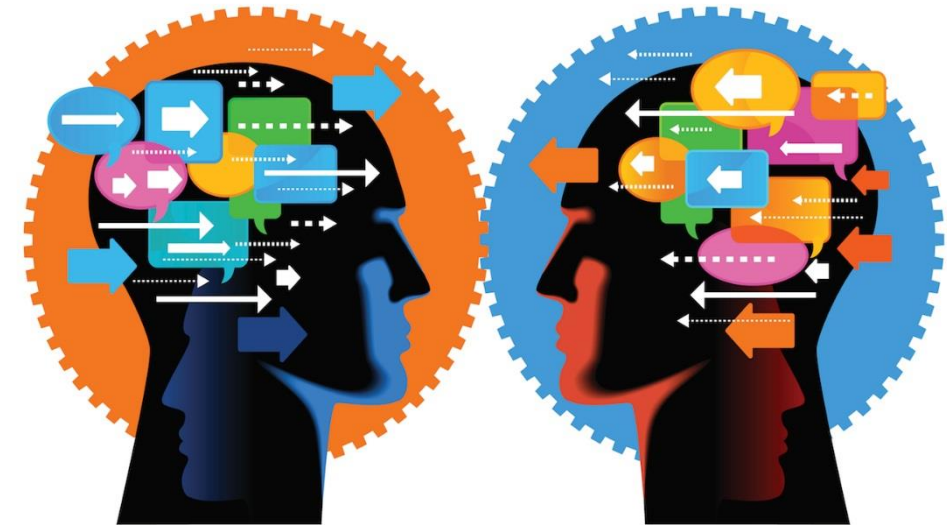


Generate new ideas

Take some time to
organize ideas &
set goals



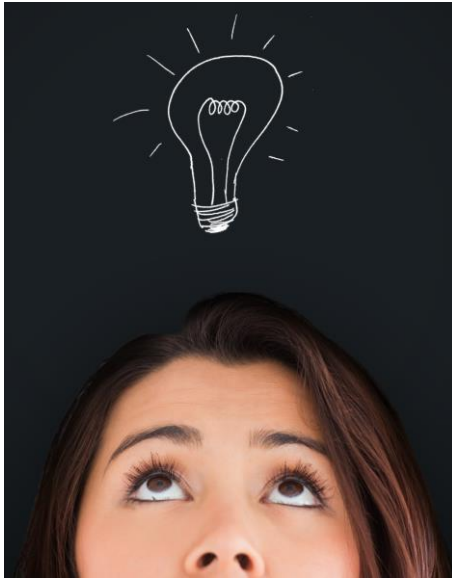
Road maps to communicate
ideas to new lab members



Get feedback

Where to start ?

A great idea



Not too big, not too small



Well adjusted ambitions



Risk and gain

How to turn an idea into a great proposal

Start by finding the appropriate type of funding:

- **Basic research** - hard to fund, especially in Greece!
 - National: ΕΛΙΔΕΚ
 - EMBO Young Investigator Program
 - Marie Curie Actions (Individual fellowships, Training Networks, very competitive <10% success rate)
 - European Research Council grants (very competitive, self-selection, ~15% success rate)
 - Human Frontier Science Program Grants (super competitive, ~3% success rate)
 - Foundation Santé
 - National Institutes of Health (NIH) - very competitive <10% success rate
- **Applied research** – more funding opportunities
 - National: Ερευνώ-Καινοτομώ, Εμβληματικές δράσεις,
 - European Innovation Council (very competitive, < 10% success rate)
 - The majority of European Commission calls welcome applied research and industrial partners
 - Major companies also offer funding for specific subjects
 - Disease oriented private foundations (e.g. Simon's Foundation, Michael J. Fox Foundation, Alzheimer's Foundation *etc.*)

Tools that can help you navigate the funding space:

<https://praxinetwork.gr/orizontas-evropi/>

Funding and Tenders EU portal (all EC grants)

European Commission | Funding & tender opportunities
Single Electronic Data Interchange Area (SEPIA)

SEARCH FUNDING & TENDERS

Find calls for proposals

Proposal Central

ProposalCentral
Applicants &

ProposalCentral enables researchers
for their contributions, and realize the
efforts.

\$23 Billion
Funded Grants.

200+
Funding Organizations.

750,000+
Research Applications.

JUST
Google™ It!

πράξη »
δίκτυο διάχυσης τεχνολογίας

e / Ορίζοντας Ευρώπη

ρίζοντας Ευρώπη





Τι είναι ο Ορίζοντας Ευρώπη

Step 1: gather all relevant material


1. Carefully study the call for proposals and the guide for applicants before starting.
2. Know the evaluation criteria very well. **You must write the proposal in a manner that explicitly addresses the criteria.** Excellence, novelty and/or innovation potential should be emphasized strongly from the start.
3. Know your judges: find information about the expertise of reviewers and/or panel members, if available (e.g. look at previous ERC panels)
4. If possible, find **previously successful proposals** for the call of interest (from colleagues, local grant's office) and study them carefully.
5. Attend **online webinars with information** about your call of interest (EC / PRAXI / National Contact points organize these regularly)
6. **Experience the reviewer's side:** evaluate other proposals yourself (those of colleagues, national / EU agencies – register on expert databases!)



 The "Excellence" criterion 

- **Long-term vision:** How convincing is the vision of a radically new technology that has the potential to have a transformative positive effect to our economy and society?
- **Science-towards-technology breakthrough:**
 - How concrete, novel and ambitious is the proposed science-towards-technology breakthrough with respect to the state-of-the-art?
 - What advancement does it provide towards realising the envisioned technology?
- **Objectives:**
 - How concrete and plausible are the proposed objectives?
 - To what extent are high-risk/high-gain research approach and methodology appropriate for achieving them?
- **Interdisciplinarity:** How relevant is the interdisciplinary approach from traditionally distant disciplines for achieving the proposed breakthrough?

Threshold 4/5 Weight 60%



22

Basic components of every proposal

- Background / SOTA
 - What is missing, what is your hypothesis?
- Aims
 - Short bullet points
- Methodology (work-packages)
 - How to test your hypothesis, how feasible, preliminary results ?
 - Expected outcomes, deliverables
- Conclusions, how this will change the world, what is the outlook ?
- Risk assessment
 - alternatives
- Time-line, work plan



Keep in mind while writing: features of a good proposal

1. Scientific and/or technological excellence (review the SOTA very well, identify the open problems, point to the importance of unmet needs)
 - **your idea must be the ideal way to address an important yet unmet need**
2. A high degree of novelty and/or innovation potential
 - **Your project must have a clear and measurable (with KPIs) novelty component**
3. Ambitious, yet realistic and timely objectives
 - Explain this briefly, avoid repetitions.
 - Why are they timely? (SOTA, technology developments, maturation of field)
 - Ambitious yet realistic: importance of preliminary data, risk analysis/ contingency plans, collaborators with expertise
4. Clarity, relevance and justification of the objectives and expected outcomes
 - For each objective, detail the expected outcomes and insights gained

Keep in mind while writing: features of a good proposal

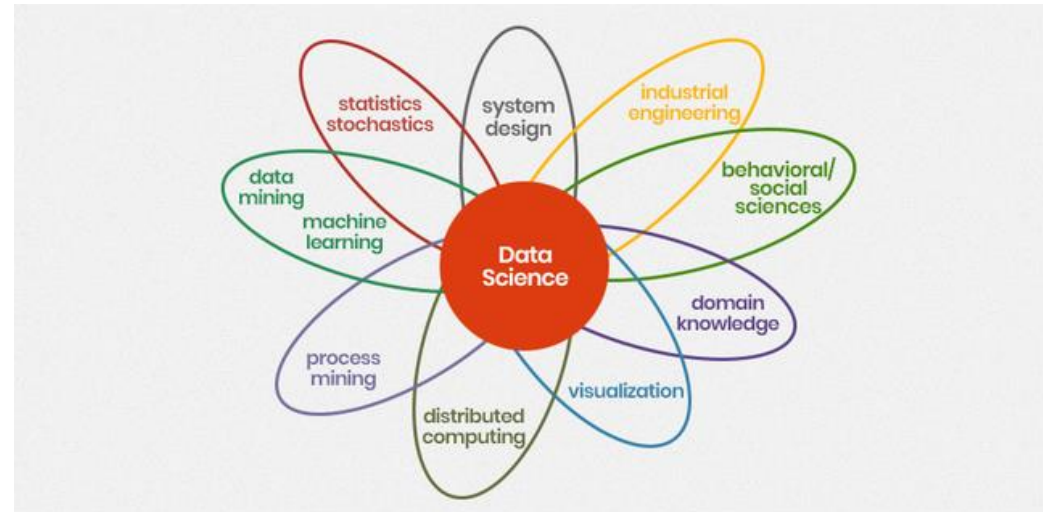
5. A convincing and the most appropriate methodological approach
→ Include implementation details. Organize the work in concise work-packages, avoid extensive dependencies between WPs, use milestones and deliverables in a realistic manner, time the work appropriately. Explain why this approach is suitable.
6. Evidence of the necessary expertise/infrastructure for the implementation of the project
→ Refer to your own prior publications on the subject to establish credibility. Use preliminary data to support your claims.
7. A detailed justification of the requested budget.
→ Estimate resources (person-months / budget /infrastructure) needed in a realistic manner – don't inflate
8. Significance and impact of the work on science, economy and/or society
→ Explain the lasting effects of your research to different fields. Propose specific actions for measuring these effects (e.g. publications, talks, outreach events, workshops etc.)
9. **High quality of writing: all of the above are presented in a clear, systematic and well-organized manner, including visual aids and summary figures.**

Useful Tips

8. Write a clear risk analysis and have contingency plans in place in case the work does not go as predicted. Ensure you do not have sections of the project that are entirely dependent on the success of an earlier phase of the work (this can be a killer).

Alert Level / Risk Designation	Risk	Effect	Mitigation
A	Belt and pulley system slipping	Reduces efficiency	Increase tension / Change drive system
B	Unable to achieve necessary torque needed for pump	Pump will not operate	Increase turbine size (width)
C	Failure of apparatus to remain stable	Apparatus is no longer secured	Redesign mooring system
D	Cannot sustain required rpm for pump shaft due to stream velocity	Pump will not operate	Increase the pulley ratio to gain higher rpm's
E	Water Tunnel velocity too low for testing of concept	Lab tests cannot be performed	Use CFD to design turbine apparatus

8. Highlight the impact of the work explicitly, about you as a PI, your Institute, the scientific community, society, the economy etc. Provide concrete examples, not generalizations.



Useful Tips

8. Keep it short and to the point.
 - Read it as if you were the reviewer and simplify.
 - Reviewers normally read multiple proposals over short periods of time. Make it easy for them and your chances of getting a good score will increase.

9. Get an experienced colleague to look at your application at an early stage and possibly in the near final stages. (Preferably someone who has served on grant-giving panels)



Examples of funding sources in Europe

PhD fellowships

- AXA PhD Fellowships
- Leventis Foundation
- Fontation Sante
- Hellenic Foundation for Research and Innovation
- Onassis Foundation
- The Boehringer Ingelheim Fund (BIF)
- BAEF – Fellowships for US Citizens in Belgium
- Bayer Fellowship Program

Postdoctoral fellowships

- IKY
- Hellenic Foundation for Research and Innovation
- AXA Post-doctoral Fellowships
- Fondation Sante
- EMBO Long-Term Fellowships
- FEBS Long-Term Fellowship (possibilities for summer fellowship, follow up research fund and Long-Term and Return-to-Europe Fellowships)

Postdoctoral fellowships

- HFSP Long-Term Fellowships
- MARIE SKLODOWSKA-CURIE Actions
- Wellcome Trust Sir Henry Wellcome Postdoctoral Fellowship (for early post-docs based in the UK, but also permitting extensive international travel and collaboration)
- Banting Postdoctoral Fellowships for Canadian Citizens
- Canon Foundation – Research Fellowships (Japan and European exchange)
- Fondation de la recherche médicale
- Fondation Fyssen (postdoctoral fellowship for 2 years, postdoc to be carried in France)
- German Research Foundation (DFG) – Research Fellowships
- SNF (early and advanced postdoc mobility- for people that had their PhD in Switzerland and want to go abroad for the postdoc)
- Royal Society Newton Fellowship (for non-UK early-stage scientists who wish to conduct research in the UK)

Examples of funding sources in Europe

Young Principal Investigators

- AFAR (American Federation for aging research) – Research Grants for Junior Faculty
- Agence Nationale de la Recherche, Young Investigator Award
- ALZ.org (Advancing Alzheimer's research)
- BBSRC David Phillips Fellowship (for building UK – based independent research career)
- Brain and Behavior Research Foundation (NARSAD)
- EMBO Young Investigator Program – research grant for individual group located in Europe within less than 4 years since their independent position
- Emmy Noether Programm of the German Research Foundation
- ERC Starting Grant
- ERC Consolidator Grants
- Fondation Fyssen (Usually support Young Investigators installing their lab in France)
- German Research Foundation (DFG) – Research Grants
- Heisenberg Program of the German Research Foundation
- HFSP Career Development Award – HFSP fellows who return to their home country or move to an HFSP member country to establish their independent laboratory
- HFSP Young Investigator Grant – research grant for a team of multi disciplinary and preferentially intercontinental researchers
- MRC New Investigator Research Grant (UK only)
- MRC Career Development Award (for building UK – based independent research career in medically-oriented bioscience)
- MQ, Transforming Mental Health, MQ is supporting the best and the brightest early career scientists and clinicians
- Simon's Foundation
- SNF (Ambizione-young investigator that wish to conduct and lead an independent project at a Swiss higher education institution)
- Wellcome Trust/Royal Society Sir Henry Dale Fellowship (for building UK – based independent research career)

Examples of funding sources in Europe

Research Grants

- Alzheimer's Drug Discovery Foundation (ADDF):
Translational and Clinical Research on Alzheimer's Disease
- Alzheimer's Research UK (UK only)
- Alzheimer's Society UK (UK only)
- BBSRC Bioscience for the future (UK only)
- Fondation Jérôme Lejeune (Genetic neurodevelopmental disorders)
- Fontation Sante
- Horizon Europe (the main funding instrument of the European Commission, multiple types of grants)
- Hellenic Foundation for Research and Innovation
- Human Frontier Science Program
- Huntington's Disease Society of America (HDSA): Human Biology Project
- March of dimes (work on development)
- MRC Medical Research Council (UK only)
- Brain and Behavior Research Foundation
- Netherlands Organization for Scientific Research (NWO), (Netherlands only)
- NIH international program
- Norwegian Research Council (RCN), (Norway only)
- NY Stem Cell Foundation
- Michael J. Fox Foundation for Parkinson's Research
- Parkinson's U.K.
- Research Foundation Flanders FWO, (Belgium only)
- Royal Society Research Grant (For scientists in the UK who are at an early stage of their career and want to purchase specialised equipment and consumables)
- Scientific and Technological Research Council of Turkey (TUBITAK), (Turkey only)
- SFARI Simon Foundation Autism Research Initiative (both pilot and research award)
- US Army: US Army Research Institute for the Behavioral and Social Sciences BAA for Basic Research
- Wellcome trust (UK and oversea applicants)
- Wings for life (spinal cord injury)

Find support!



EJN European Journal of Neuroscience

FENS Federation of European Neuroscience Societies

European Journal of Neuroscience, Vol. 43, pp. 603–607, 2016

doi:10.1111/ejn.13169

EDITORIAL

The road to independence: how to get funding in neuroscience

Emre Yaksi,^{1,2,3} Panayiota Poirazi^{1,4} and Ileana Hanganu-Opatz^{1,5}

¹FENS-Kavli Network of Excellence, Europe-wide

²NERF, VIB, KULeuven, Leuven, Belgium

³Kavli Institute for Systems Neuroscience, Centre for the Biology of Memory, NTNU, Trondheim, Norway

⁴Institute of Molecular Biology and Biotechnology (IMBB), Foundation for Research and Technology-Hellas (FORTH), Heraklion, Crete, Greece

⁵Institute of Neuroanatomy, University Medical Center Hamburg-Eppendorf, Hamburg, Germany

Early Career Researchers – check out FENS-Kavli network of excellence for tips on various issues related to Young PIs
<http://www.fens.org/Outreach/FENS-Kavli-Network-of-Excellence/Activities/Mentoring/Opinion-articles/>



FKNE Mentoring Resources:

2020

[Starting and mid-career PI hurdles](#) (*recorded online event*)

[ALBA-FKNE live panel discussion: How to negotiate to get what you need](#)

[Towards an environmentally-friendly model for life sciences](#) (*recorded online event*)

2018

[Dealing with gender-bias in neuroscience](#) (*recorded in-person event*)

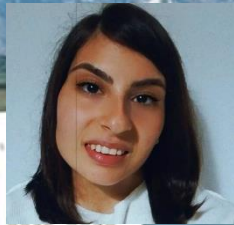
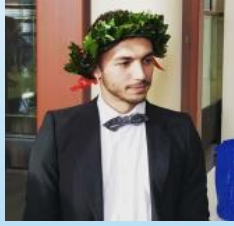
2016

[Writing a constructive peer review: a young PI perspective](#) (*FENS-Kavli Scholars: Belin D, Karadottir R.T. Eur J Neurosci. 2016 Oct 5. doi:10.1111/ejn.13423*)

[Moving on: mobility for early-career neuroscientists](#) (*FENS-Kavli Scholars: Grubb MS, Hoogenraad CC, Schwabe L, López-Bendito G. Eur J Neurosci. 2016 July 16. doi:10.1111/ejn.13339*)

[Balancing family with a successful career in neuroscience](#) (*FENS-Kavli Scholars: Poirazi P, Belin D, Gräff J, Hanganu-Opatz I, López-Bendito G. Eur J Neurosci. 2016 May 16. doi:10.1111/ejn.13280*)

[Collaboration in neuroscience: the young PI perspective](#) (*FENS-Kavli Scholars: Belin D, Rolls A. Eur J Neurosci. 2016 March 31.*)



Collaborators:

Alcino Silva, UCLA

Matthew Larkum, Humboldt

Attila Losonczy, Columbia

Franck Polleux, Columbia

Jayeeta Basu, NYU

Stelios Smirnakis, Harvard

Peyman Golshani, UCLA

Tristan Schuman, Mount Sinai

Denise Cai, Mount Sinai

Lucy Palmer, Melbourne U.

Tomas Ryan, Dublin U.



www.dendrites.gr

[Twitter](#)

[@YiotaPoirazi,](#)
[@dendrites.gr](#)

Thank you for your attention!

