

How to write a good grant !



INSTITUT UNIVERSITAIRE
DE CARDIOLOGIE
ET DE PNEUMOLOGIE
DE QUÉBEC



Groupe de Recherche en
Hypertension Pulmonaire

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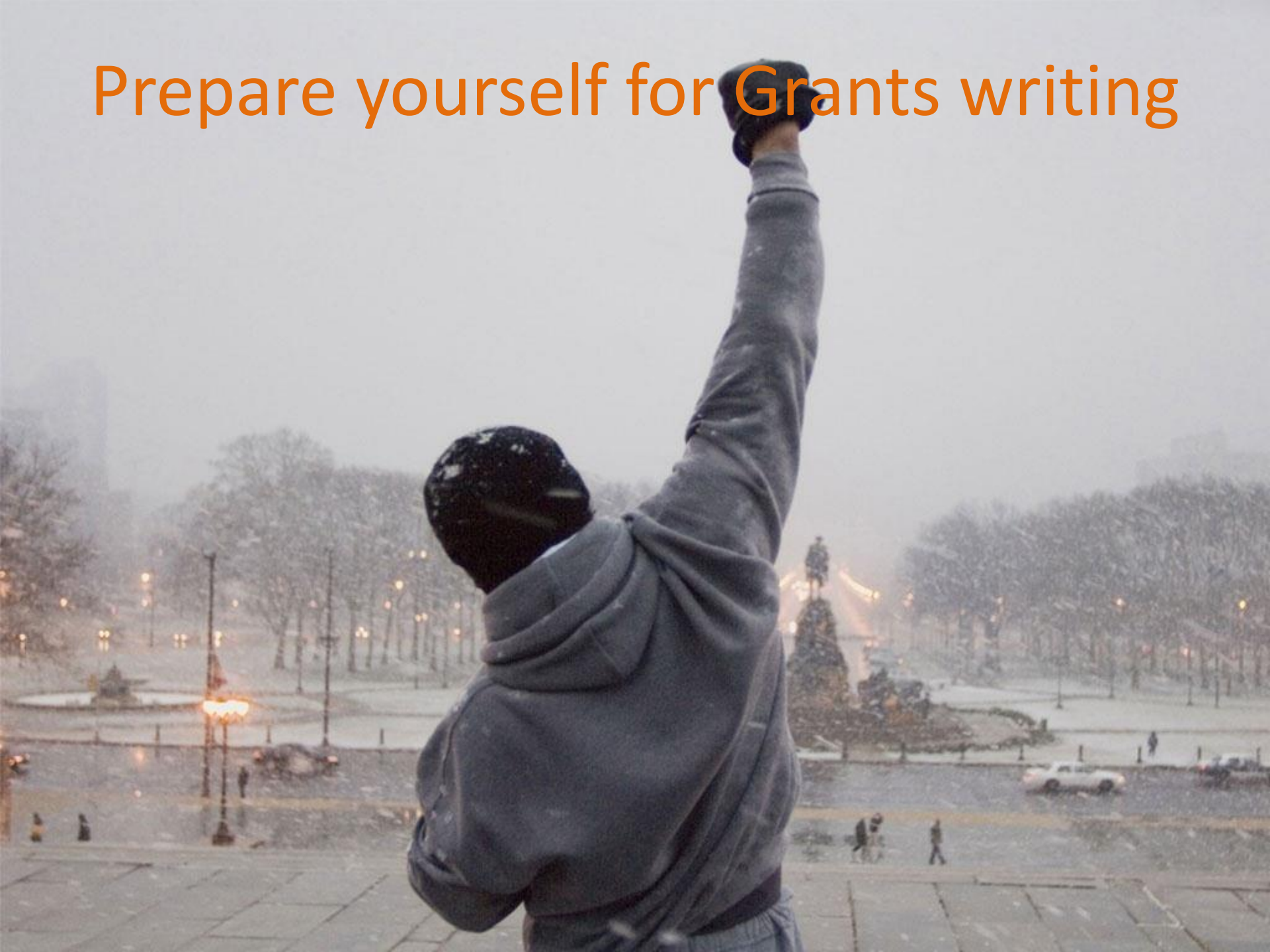
Who I am



CENTRE DE RECHERCHE
INSTITUT UNIVERSITAIRE
DE CARDIOLOGIE
ET DE PNEUMOLOGIE
DE QUÉBEC

- Full professor with tenure
- Director of pulmonary hypertension and vascular biology research group of Quebec
- Director of the Canadian research chair in translational research in pulmonary vascular diseases
- Applied to CIHR/HSF 22 times received 8 grants
- I am reviewer for CIHR, CFI, HSF, NIH, AHA and several European agencies
- In average I write 10 + grants /year (industry, foundation, University) and I am happy if I get 1 to 3 grants/year

Prepare yourself for Grants writing



Try to organize your time To protect some of your time for grant thinking and writing

WHAT TO DO WHEN YOU'RE OVERWHELMED WITH WORK

STEP 1: MAKE A LIST OF ALL THE THINGS YOU HAVE TO DO.



STEP 2: CATEGORIZE THEM BASED ON THEIR IMPORTANCE.



STEP 3: REALIZE YOU JUST MADE IT WORSE.



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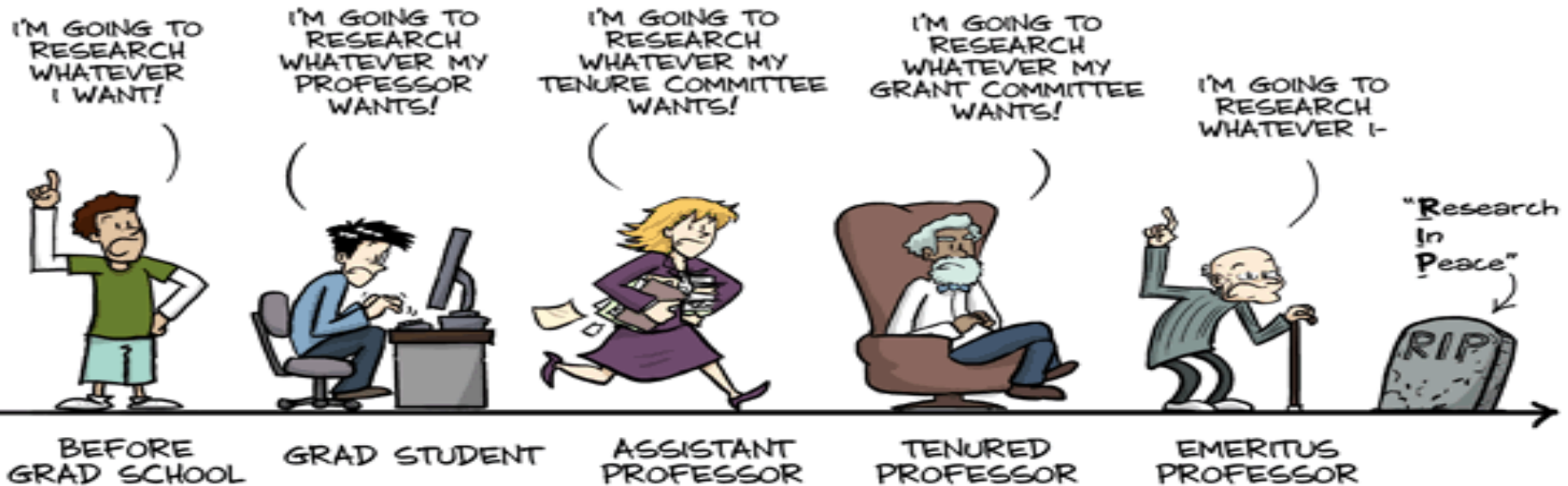
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Time management

- **NETWORKING IS IMPORTANT** Help bring your research to the attention of your colleagues and help you in findings collaborators
- **Extensive literature review** Help to build the foundation of your grant
- **Make sure that people in your lab are ready for last minute experiments**

How to determine the right research topic for your grant

THE EVOLUTION OF INTELLECTUAL FREEDOM



How to determine the right research topic for your grant

- Novel (original idea, using state of the art methods). Always be aware of the hottest topic in research
- In line with your expertise's but definitively different from your mentors / past supervisors work to show independence.
- Make sure that your proposal is feasible within the grant timeline



The research grant application process.



Research grant writing in progress.

How your grant is evaluated (based on my own experience)



How your grant is evaluated (based on my own experience)

- **Well written**

- Comprehensive and up to date background
- clear hypothesis with specific aims.
- For each of aims have brief background explaining why you should do that, then clear and well described experimental design with all the appropriate control experiments, sample size, statistics. Then provide expected results section and alternatives approaches.

- **Feasibility** (Not Too ambitious especially for young investigators)

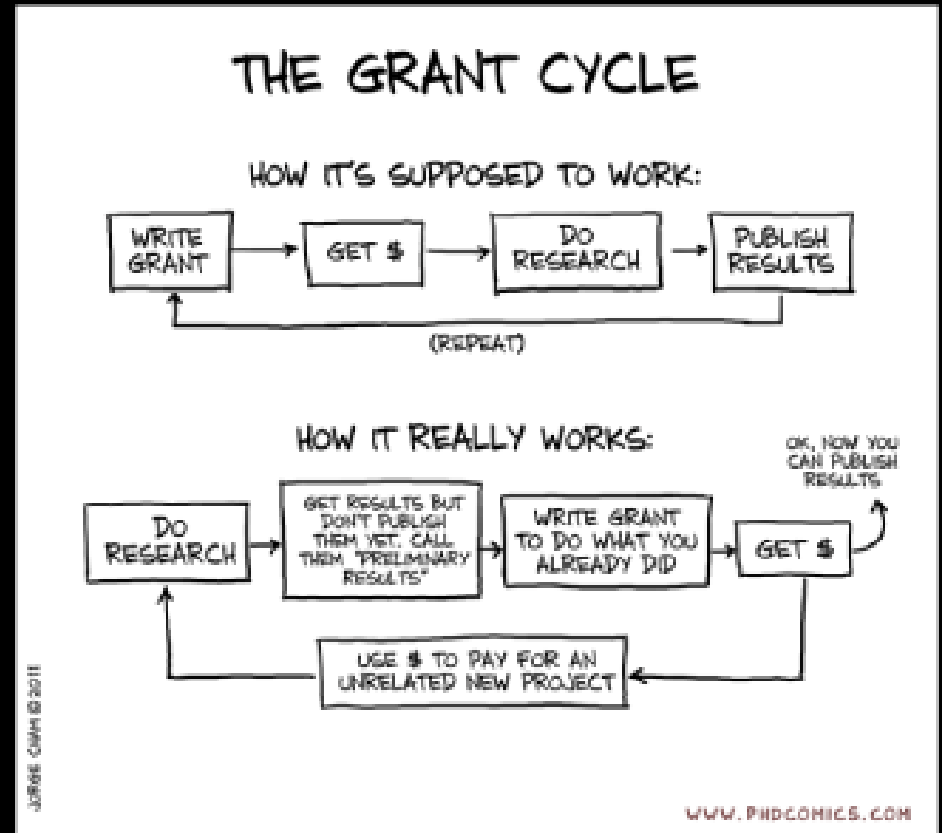
- **Is it translational** (will it impact the clinic rapidly).

- **Do not submit** a an immature project ! you always want to give a good impression to the committee

How your grant is evaluated

Critical question :The amount of preliminary data

Again reviewers love to nail us on preliminary data. Not enough and you are not validating your main hypothesis and too much, you will not get the money because your project is already done !!



"Piled Higher and Deeper" by Jorge Cham
www.phdcomics.com

Productivity is key to get grants

Academic Guilt



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Productivity reflects:

- Your expertise's
- your ability to drive projects and to use efficiently research money

The Competition results

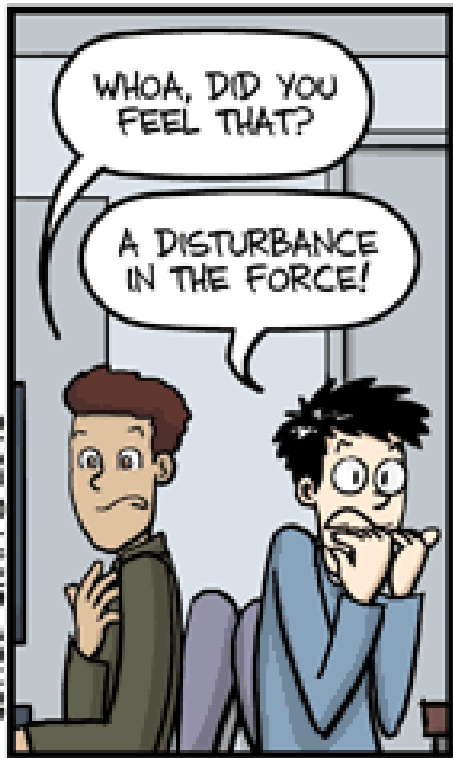
- Keep in mind that reviewers are humans:
 - some like you as a person
 - like your science.
 - some are competing with you
 - some just don't care or do not like you and/or your science.
 - Nothing you can do about it !



I personally never exclude reviewers and never suggest reviewers either

The Competition results

- Keep in mind that you will get more failure than success in grant writing so do not get discouraged
- A non-funded project does not necessarily mean a bad project !! Most of my best papers where not directly funded !!!



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