How to write a successful fellowship grant application

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Conflict of interest

- None

Summary

- ESMO fellowship opportunities
- ESMO research fellowship application tips
  - Translational Research
  - Clinical Research
- Grant Writing general tips
- Writing a research project proposal
- Fellowship grant specificities: 3 key points
  - Candidate´s personal background and profile
  - Motivation letter
  - Training program
    - growing self & training thinking process

ESMO Clinical or Translational Research Fellowships Application

- Completed online application form
- Digital photograph
- Detailed clinical/translational research <u>project proposal</u> including timelines
- Brief statement of <u>project goals and how the acquired techniques will be used in the home institute/country</u>
- Name of host institute and <u>acceptance letter</u> from the person responsible for the project at the host facility
- <u>Letter of recommendation</u> from the candidate's department head
- <u>Motivation Letter</u>
- **All applications must be submitted in English; incomplete applications will not be accepted**

Translational and Clinical Research Fellowships Evaluation (ESMO)

- The Committee will consider the following criteria when reviewing applications and determining funding decisions:
- **The extent and level of previous education (CV)**
- **Motivation letter**
- **Other professional training and publications**
- **Research project**
  - **Quality of the application, overall strategy, methodology, and proposed analyses of the research data as well as and appropriateness to accomplish the specific aims within the grant term.**
  - **Feasibility of the project given the time frame and the budget**

Grant writing general tips

- to be part of the best possible <u>team</u> to accomplish the work proposed

  – to secure collaborators for areas in which you lack experience and training

- difficult to <u>secure the attention of busy senior investigators</u>, but it is a critical step toward securing funding for the work you propose

- grant writing, like any skill, can only be optimized by doing it repeatedly, so <u>practice it!</u>

Grant writing general tips

- Use <u>clear and simple sentence</u> structures, and avoid complicated words.
- Avoid se <u>abbreviations</u> to save space
- Use a reviewer friendly approach where the <u>formatting is simple and the font readable, don't reduce margins to save space</u>. Do not overload
- <u>Organize</u> and use subheadings effectively
- Repeat topic or "<u>mantra</u>" sentences for each section that build the "story" of your grant in a logical and sequential way.
- Be <u>consistent</u> in specific aims and format throughout the application.
- <u>Continuous spell-check</u>, use spell-checking programs before submission, typos are unacceptable
- <u>Review</u> as many times as possible. Ask a colleague from a different field to read through the final draft before submission.

3 key points and the rest

- 1: Personal profile

- 2: Motivation letter is AS IMPORTANT AS anything

- 3: The training program

- 4: The rest: writing a research project proposal

Writing a research project proposal

- The right question

- A good hypothesis

- Aims

- The background and significance

- Preliminary studies

- Methods and design

The right question

- Don't propose any research question that you really do not think you will <u>enjoy</u> for the "long term".
- the "right" research question should lead to a hypothesis that is <u>testable</u>, that is based upon existing <u>knowledge</u> and fills and existing <u>gap</u> in specific areas of knowledge.
- That can be transformed into a feasible <u>study plan</u>.
- How does one find the "right" research question? Open your eyes and observe:
  - study: reading/teaching/discussing
  - exploit new technologies
  - patients often provide clues

S.P. Glasser (ed.), *Essentials of Clinical Research, 317*
˝ Springer Science + Business Media B.V. 2008

A good hypothesis

- is feasible, interesting, novel, ethical, manageable in scope, and <u>relevant</u>.
  - Ask for colleagues opinions
- address whether the results of your study will confirm extend, or refute prior findings, or provide <u>new knowledge</u>.
  - is the question too broad or vague to be reasonably answered?
- include only experiments that are <u>feasible</u>
  - You, your team and your host institution have the expertise and resources to conduct

Hulley SB, Cummings SR, Browner WS, et al. *Designing Clinical Research. 2nd ed.* Philadelphia, PA: Lippincott Williams & Wilkins, 2000.

Aims

- a brief introduction that underscores the <u>clinical relevance</u> of the proposal

- the most important <u>findings to date</u>

- <u>the problem</u> that the proposed research will address

- Each aim maximum 5 lines, 2 to the statement of the aim, 3 to back-up

S.P. Glasser (ed.), *Essentials of Clinical Research, 317*
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The background and significance

- What is the current <u>state of knowledge</u> in this field?

- What <u>gaps in knowledge</u> will this project fill?

- More generally, <u>why</u> is this line of research important?

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Preliminary studies

- this section also uses the previous results to demonstrate the feasibility of your proposed project by your team

- particularly important for junior investigators where there may be inadequate investigator experience or training for the proposed research, a limited publication record, and/or a team that lacks the skill set required for the research proposed

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Design and methods

this is the section where many reviewers begin to read

- <u>re-set "the scene"</u> by refreshing the reviewer regarding the overview for each specific aim.
- use one paragraph to overview each specific aim, and then to deal with each sub-aim separately.
- be <u>clear, concise</u>, yet <u>detailed</u> regarding how you will collect and analyze your data, <u>avoid</u> basic technical details
- <u>ALWAYS include a statistical plan</u> including the tests to perform
  - address threats to both internal and external validity (technical and clinical)
- <u>Anticipate data interpretation</u> and conclusions based on the expected outcome, or on the chance that you find different results than expected

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Fellowship grant specificities

- It is more about YOU than a specific attached project, YOU are the asset, YOU are the project

- Society wants fellowship grant recipients to get the best out of their fellowship program

- And then return it to society

- You have to sell yourself
  - Convince the reviewers that you will derive the greatest personal and professional growth from the training program and then return it to society

HOW: 3 key points

- 1: Personal profile

- 2: Motivation letter is AS IMPORTANT AS anything

- 3: The training program (include mentorship committee)

Personal profile and past history

- Previous background and past history coherent with the proposed program
  - Clinical program versus translational program
  - MD focused versus PhD focused

- Personal introspection
  - lab technical skills, bedside manners, statistics, complex problem solving
  - Personality traits, social skills
  - Writing skills, oral skills

Motivation letter

- First thing to read by reviewer.

- Driving force can overcome any challenge, be it personal limitation or environmental

- NOTHING can overcome lack of PASSION

The training program (include mentorship committee)

- The contents of the training program is <u>much more</u> than a list of clinical trials or a fantastic translational research study

- Needs to be <u>coherent</u> with applicant's background

- <u>Focused</u> on the candidate development, not on the trials or projects

- <u>List of deliverables</u> of acquired skills and personal growth developments
  - Include a <u>Timeline table</u> with your aims and activities by year

- <u>Target</u> your grant to the expected audience (i.e., your reviewers)

- Build the program with your <u>mentors</u>

- Obtain feed back from <u>external reviewers</u> if possible

Growing self
& Training the thinking process

- Holistic approach to personal training
  - lead yourself, teamwork, cooperation, group dynamics, human psychology, how to communicate, how to deal with conflict, time management, balancing work and life
- We ALL need to change the thinking process in order to innovate
- **Transforming the practice of Oncology is urgent!!!**