NIH Collaboratory *Rethinking Clinical Trials®*

Health Care Systems Research Collaboratory

Living Textbook Grand Rounds Series
Tips for Putting Together a Successful PCT Grant Application

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Agenda

- Confirm PCT is the best design
- Find the right NIH program official
- Find the right funding opportunity announcement (FOA)
- Write a strong proposal that addresses review criteria

Does your study have the right design?

- Be clear about the hypothesis you want to test and then design the study to test that hypothesis
- PCTs are not the appropriate design to answer clinical trial questions

Key differences between explanatory and pragmatic trials

	EXPLANATORY	PRAGMATIC
Research question	Efficacy: Can the intervention work under the best conditions?	Effectiveness: Does the intervention work in routine practice?
Setting	Well-resourced “ideal” setting	Routine care settings including primary care, community clinics, hospitals
Participants	Highly selected	More representative with less strict eligibility criteria
Intervention design	Tests against placebo, enforcing strict protocols & adherence	Tests 2 or more real-world treatments using flexible protocols, as would be used in routine practice
Outcomes	Often short-term surrogates or process measures; data collected outside of routine care	Clinically important endpoints; at least some data collected in routine care
Relevance to practice	Indirect: Not usually designed for making decisions in real-world settings	Direct: Purposefully designed for making decisions in real-world settings

Adapted from Zwarenstein M, Treweek S, Gagnier JJ, et al. BMJ. 2008;337:a2390. doi: 10.1136/bmj.a2390. PMID: 19001484

Important things to know

- Online resources are available for the development of pragmatic trial grant applications
- NIH has policies and special forms related to clinical trial grant applications
- Some things, such as milestones and safety monitoring, may be negotiated around the time of an award

National Institutes of Health

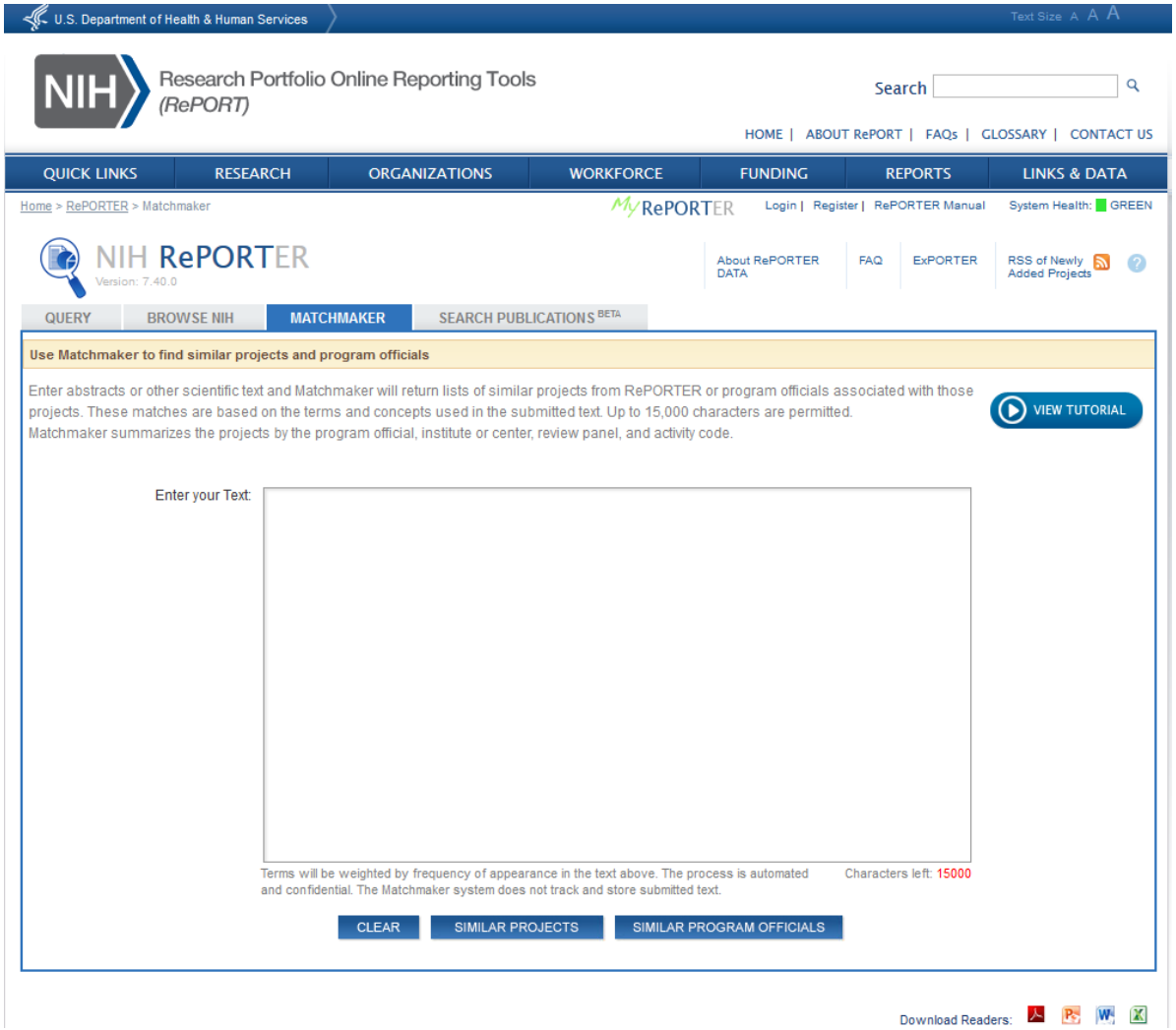
- NIH is made up of 27 institutes and centers, or ICs
- ICs award >80% of the NIH budget each year to extramural investigators
- Each IC has a budget and a Director, and often their own review for large trials

Find the right NIH program official

IC mission and priorities:

- Focus on a specific disease area, organ system, or stage of life
- Use Matchmaker tool in NIH RePORTER for suggestions
- Talk to program officials (specific aims)
- Consult your mentor and colleagues

NIH RePORTER matchmaker tool



Matchmaker results (example)

Find the right FOA

- Request for Application (RFA)
  - For specific areas of science where more research is needed, and applications are encouraged for investigator-initiated research in this specific area of science
  - Usually single receipt date and special emphasis review panel
  - Specifies amount of funds available and number of awards that may be made

Find the right FOA

- Parent Program Announcements (PA)
  - Allow investigator-initiated applications in many areas of science
  - Confirm Institute or Center participation
- Other Program Announcement (PA, PAS, PAR)
  - For an area of scientific interest for one or more ICs where investigator-initiated research is needed
  - Often multiple receipt dates
- Usually reviewed by standing study section

NIH scientific contacts

- Check the FOA for the Scientific Contact of the relevant IC

- If applying to parent FOA consider contacting IC contact:

NCCIH	Robin Boineau	**NIDA**	Sarah Duffy
NCI	Erica Breslau	**NIDCR**	Dena Fischer
NHLBI	Catherine Stoney	**NIDDK**	Susan Mendley
NIA	Marcel Salive	**NIMH**	Jane Pearson
NIAAA	Brett Hagman	**NIMHD**	Benyam Hailu
NIAID	Clayton Huntley	**NINDS**	Robin Conwit
NIAMS	Chuck Washabaugh	**NINR**	Karen Huss
NICHD	Sue Marden	**ODP**	Jacqueline Lloyd

Tailor the application

Tailor your application to address all the FOA-specific instructions and review criteria

Common application pitfalls

- Overly ambitious—beyond the life or length of the application
- Missing or inappropriate control groups
- Lack of sufficient expertise or skilled collaborators needed to complete the studies
- Not sufficient publications in the area of proposed studies
- Insufficient statistical power
- Cannot recruit the needed population

Don’t assume that the study panel is going to understand what pragmatic means. They may have their own completely different definition than you, and it’s important that you get on the same page early on in your application.

Application dos

- Justify the research
- Include pilot data
- Address potential overlaps
- Reduce complexity
- Ensure aims will advance the field
- Choose appropriately expert personnel for a multidisciplinary team
- Link data collection and analysis to aims
- Justify the use of multiple sites and sample size

Application **Don’ts**

- Skip any steps (eg, literature review)
- Use dense or confusing writing style
- Use appendix inappropriately
- Include untestable aims
- Include non-relevant aims or fishing expeditions
- Assume that prior collaboration is irrelevant

Strategies for success

- Pose a clear research question
- Convince the reviewer your study is worth doing
- Sell your research plan–highlight the strengths
- Identify weaknesses and explain how you will deal with them
- Tailor your application to the funding agency
- Obtain feedback from your collaborators, consultants, and others

NIH research methods resources

https://researchmethodsresources.nih.gov/

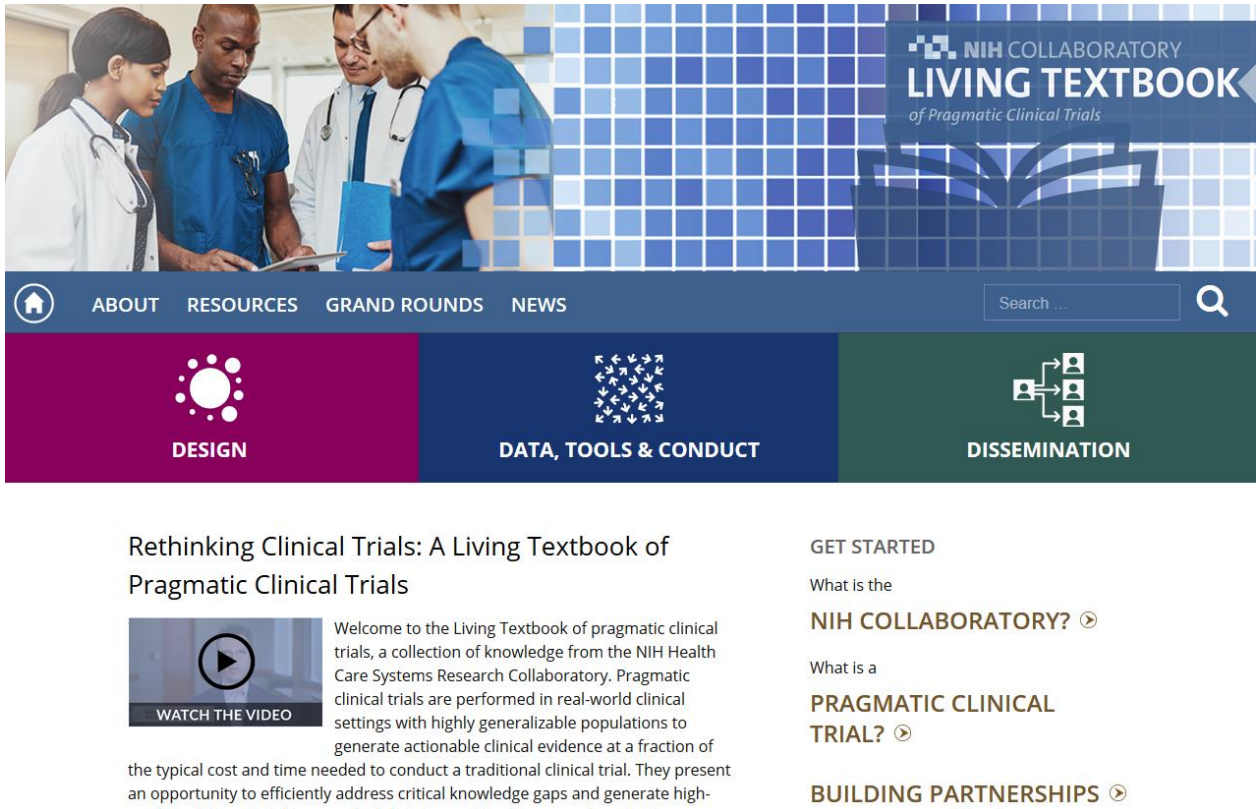
Important things to do

- Read relevant Funding Opportunity Announcement multiple times
- Identify program staff at your target NIH Institute/Center and ask them to review your Specific Aims
- Obtain adequate feedback on the Research Plan from the entire study team

ePCT Resource: The Living Textbook

Visit the Living Textbook of Pragmatic Clinical Trials at

www.rethinkingclinicaltrials.org



Design chapter: Developing a Compelling Grant Application