

What makes a compelling NIH grant proposal?

Karen Messer

Chief, Division of Biostatistics & Bioinformatics

University of California San Diego

10/21/2021



Background

- BMRD Reviewer and now **ex-Chair**
I am commenting as an individual
- Participated in many successful,
and even more unsuccessful,
NIH grant applications
 - As Co-I and some as PI
- Participated in many NIH study sections
 - I have read **many, many, many, many, many** grant applications ;)



NIH grant basics

- Review is conducted by the Center for Scientific Review
 - Most grants are *scored* in a Study Section
 - E.g. BMRD
- Funding decisions are made by an institute or center (27 of them).
 - *Talk* to your Program Officer at e.g.
 - NCI- National Cancer Institute
 - NIA- National Institute on Aging



NIH grant basics

- Each institute has its own payline
 - The score below which funding is likely
- Early Stage or New Investigator PI's have a funding advantage
- There are specific RFA's and PA's, but most applications are to the parent PA
 - I.e. the general request for R01 or R21 proposals



NIH websites are a resource!

- The Center for Scientific Review
 - <https://public.csr.nih.gov/ForApplicants>
 - https://grants.nih.gov/grants/grants_process.htm
- StatFund at NCI
 - <https://statfund.cancer.gov/links.html>
 - Your NIH center's website

PS: This Grant Writer's Workbook is used at UCSD for training

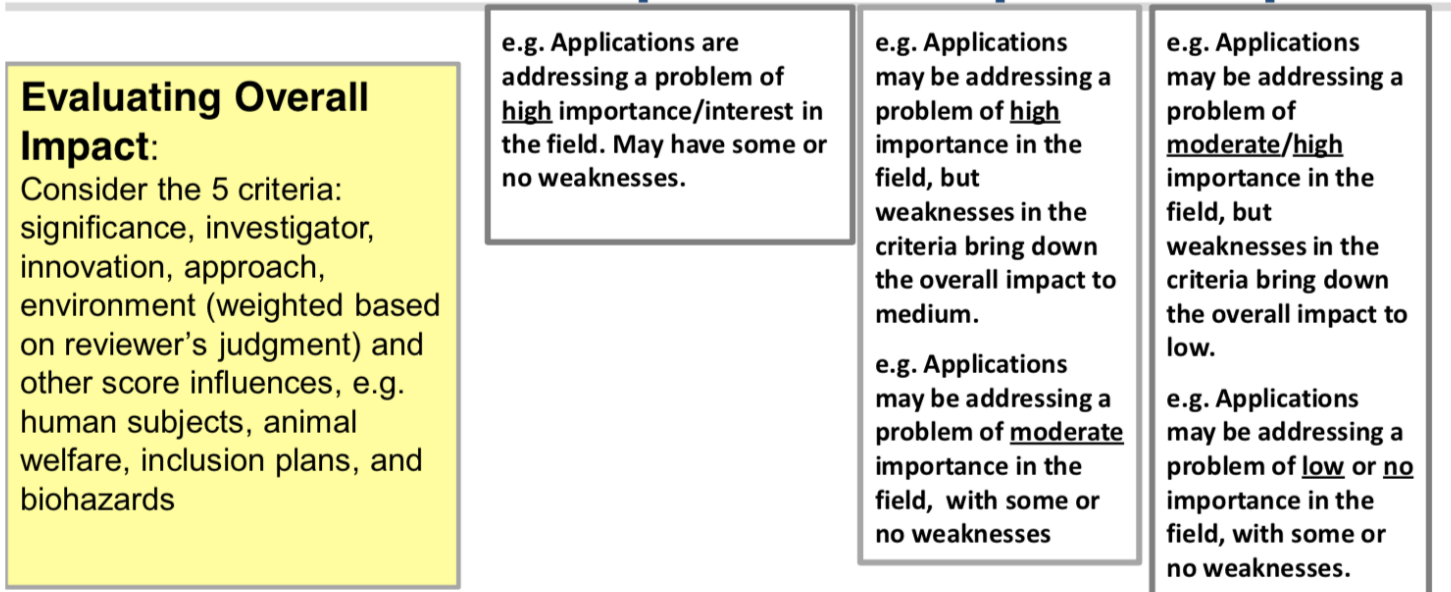
- <http://www.grantcentral.com/workbooks/national-institutes-of-health/>



Learn about review criteria

Overall Impact:
The likelihood for a project to exert a sustained, powerful influence on research field(s) involved

Overall Impact	High	Medium	Low
Score	1 2 3	4 5 6	7 8 9



5 is a good medium-impact application, and the entire scale (1-9) should always be considered.



Be a reviewer!

- <https://public.csr.nih.gov/ForReviewers/BecomeAREviewer/ECR>

Early Career Reviewer (ECR) Program

The ECR Program develops qualified scientists without prior CSR review experience into well trained reviewers to advance their careers and enrich the existing pool of NIH reviewers.



Personal comments

Each reviewer will read 9 or 10 grants

Reviewers will not all be expert in your area

Make it easy for reviewers to grasp the main new ideas and the specific impact of your proposed work.



Personal comments

- Be clear, be concise
- Situate the work in the literature
- Tell us **WHY IT IS IMPORTANT**
- Demonstrate **REAL WORLD impact**
 - Applications should be convincing
- Convey statistical ideas
 - With adequate technical detail
 - But make the ideas accessible



Suggestions

- Have others read and comment on your application
- Revise, revise, revise
- Persistence in submitting is the best long term strategy
 - It is rare to be funded on first try



Good luck, have fun, learn a lot!!