

1) Before you Start: READ DOCUMENTS (website)

- * NSF strategic plan
- * grant proposal guide ^{change / 4 months}
- * find the right program → read solicitation (if not → talk to PM)

MANDATORY
DTM: PI is ok for postdoc

→ is there a preliminary call?
spays max → encourage.

- * write 2 pages concept, send it to PM, discuss, meet
- * look at the book → good questions

2) Writing - Reviewer's HAT → read / review proposals before

- * start 3 months earlier / you need 1 month fulltime
- * follow instructions to the letter
- * Δ acronyms / Δ typos
- * balance clear/simple and precise/detailed

3) objectives

- Specific → no vague questions
- Measurable → success evaluation
- Attainable
- Realistic
- Timebound

4) first page

NOT IMPORTANT - will be judged only on this

5) INTELLECTUAL MERIT

- * make it multidisciplinary (eg. add statisticians)
- * include preliminary data (use seed money, foundation)
- advance knowledge → HYPOTHESIS → possible interpretations
- innovative / challenge
- rationale
- success evaluation
- qualified people → team worked together before? → who brings which expertise?
- resources available → funding / techn / collaborator
- budget: no cost sharing
- * detailed timeline → who will do what?
- * data management plan

60%
IMPORTANT DO-ABLE

6) BROADER IMPACT

- advance society
- underrepresented / minority / veteran?
- student mentoring plan. detailed task.

7) SUBMISSION

- at least 1 week before
- ask feedback / colleagues / PM / advisor / naive eye

NO LIES

- suggest reviewers we feel confident with
↳ write for them, & cite them (All of them) very well!
- meet with the program director
 - before
 - after, if it was rejected

↳ do EXACTLY what they said on the second submission
⊕ add a note on the changes that you made on the reviewer

△ outside look & presentation
use figures, spaces...
→ nice to look at

△ introduction (at least) has to be understandable
By EVERYONE (in science)
⊕ why it's important - big picture

- 2-3 pages - hypothesis
- 2-3 pages - background
- 5 pages - research plan - detail
↳ who is doing what with which equipment
- 2-3 - wrap up / previous relevant work

△ if there are weaknesses → talk about them, briefly but address it.

budget ⊗ make it bigger - it will be cut down -
6 figures.

⊗ All big PI or collaborator need to ask for at least a bit of money.

Ideas are cheap: you need to prove that you will actually make it happen - do it.