The NSF Merit Review Process

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Proposal & Award Process Timeline

1. **NSF Announces Opportunity**
2. **Research & Educational Communities**
   - Submit
3. **NSF Program Officer**
   - Ad Hoc
   - Panel
   - Combination
   - Internal
4. **Program Officer Analysis and Recommendations**
5. **DD Concur**
6. **Award** Via DGA
7. **Decline**

- Proposal Receipt at NSF: 90 Days
- Proposal Receipt to DD Concur: 6 Months
- DD Concur to Award: 30 Days

Can be returned without review/withdrawn

Organization
Proposal Review Criteria

Throughout the review process, proposals are evaluated against:

- National Science Board approved merit review criteria
  - Intellectual merit
  - Broader impacts
- Program-specific criteria indicated in the program solicitation
Intellectual Merit Considerations

• How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields?
• How well-qualified is the proposer to conduct the project?
• To what extent does the proposed activity suggest and explore creative, original, or potentially transformative concepts?
• How well-conceived and organized is the proposed activity?
• Is there sufficient access to necessary resources?
Broader Impacts Considerations

• How well does the activity advance discovery and understanding while promoting teaching, training, and learning?

• How well does the activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic)?

• To what extent will the activity enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships?

• Will the results be disseminated broadly to enhance scientific and technological understanding?

• What may be the benefits of the proposed activity to society?
Types of Review

- **Ad hoc Review**
  - Specific expertise

- **Panel Review**
  - Broader scientific knowledge
  - CoReview possible

- **Internal review at NSF**
Sources of Reviewers

• Program Director’s knowledge
• References listed in proposal
• Recent professional society programs
• Computer searches of S&E journal articles
• Former reviewers and/or panelists
• Reviewer recommendations by PI
Funding Recommendations

• Program Directors make funding recommendations guided by program goals and portfolio considerations

• Division Directors either concur or reject PD recommendations
Documentation from Merit Review

- Verbatim copies of individual reviews, excluding reviewer identities
- Panel Summary
- Context Statement (usually)
- PD to PI comments, as necessary
BIO Innovation Experiments

• **Big Pitch**
  – Short proposals focused only on the main purpose and potential impacts of the research
  – “Blind” with respect to PI and institution
  – Semi-random subset of submitted proposals
  – Parallel panels (panel only review)

• **Grade Free**
  – Semi-random subset of submitted proposals
  – Parallel panels (panel only review)
  – Panelists did not provide scores/rankings to PDs
What’s unique about NSF merit review?

• NSB-mandated merit review criteria

• Integration of research and education

• Program Director autonomy
  – No “triage”
  – No “pay line”

• Reviewer identity is confidential