Scientific Management Review Board

Working Group on the NIH Grant Review, Award, and Management Process

Michael A. Marletta, Ph.D.

Chair, Working Group

December 15, 2014

Charge to SMRB

- NIH requests that the SMRB recommend ways to further optimize the process of reviewing, awarding, and managing grants in a way that maximizes the time researchers can devote to research while still maintaining proper oversight.

- In addressing this charge, the SMRB should consider:

  1. How NIH could streamline the grant-making process and shorten the time from application to allocation of funds

  2. How administrative requirements on applicants and their institutions, scientific reviewers, Council members, and NIH staff could be reduced while maintaining a high-quality review and management process

2

SMRB Working Group

Non-Federal Members

- Michael A. Marletta, Ph.D. (chair)
- Nancy C. Andrews, M.D., Ph.D.
- Scott Koenig, M.D., Ph.D.
- Gilbert S. Omenn, M.D., Ph.D.
- Larry J. Shapiro, M.D.

Federal Members

- Linda S. Birnbaum, Ph.D.
- Josephine P. Briggs, M.D.
- Stephen I. Katz, M.D., Ph.D.
- Griffin P. Rodgers, M.D.
- Martha J. Somerman, D.D.S., Ph.D.

Challenges to Address

- Time from application to award for any grant may take more than a year

- The number of applications received by NIH continues to rise, increasing the burden on the peer review system

- Budgetary uncertainty makes it difficult to make award decisions early in the year, often resulting in a bottleneck at the end of the FY

- Investigators spend a significant amount of time applying for grants to fund research projects, leaving less time to conduct research

Major Changes Under Consideration

- Consider ways of speeding funding decision making by the Institutes and Centers

- Reduce the number of granting cycles per year from three to two

- Propose that NIH spending authority be extended beyond the fiscal year

- Fund principal investigators rather than projects

- Develop and implement pre-application streamlining processes

5

Additional Changes Under Consideration

- Address inefficiencies in the application process

  - Improve Grants.gov

- Employ strategies to increase the number of peer reviewers

  - Recruit more reviewers (e.g. intramural scientists)

  - Conduct a mix of in-person and virtual meetings

  - Provide reviewer training

6

Major Changes Under Consideration

- **Consider ways of speeding funding decision making by the Institutes and Centers**

- Reduce the number of granting cycles per year from three to two

- Propose that NIH spending authority be extended beyond the fiscal year

- Fund principal investigators rather than projects

- Develop and implement pre-application streamlining processes

7

Faster Funding Decisions

- **Budget Timing Affects Decision Timing**
  - Awards tend to be given out in larger volumes later in the year ("4th-quarter crunch").
  - IC directors retain applications from earlier cycles while awaiting budget appropriations.
  - *Are there procedural changes that could make this process faster and more efficient?*

- **Altering the Decision Timeline**
  - Provide partial funding to some grants early in the fiscal year, with full funding contingent on a final NIH budget.

- **Considerations**
  - Inaccurate budget predictions could result in inadequately funded projects.

Major Changes Under Consideration

- Consider ways of speeding funding decision making by the Institutes and Centers

- **Reduce the number of granting cycles per year from three to two**

- Propose that NIH spending authority be extended beyond the fiscal year

- Fund principal investigators rather than projects

- Develop and implement pre-application streamlining processes

9

Reduce Number of Grant Cycles to Two Per Year

- Currently three grant cycles per year
  - Time from application to award can take more than a year
  - Applications reviewed in September Council may not be funded until late in the following fiscal year due to budgetary uncertainty
- Reducing the number of grant cycles to two per year
  - Allow timing of Council meetings to avoid end of fiscal year budget crunch
  - Reduce the number of applications
  - Third Council meeting (likely September) could be used for concept clearance, priority setting, etc.

Current Timeframe for R01s — Submission to Award

Three Main Overlapping Cycles per Year

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Cycle I: R&R | Assign | Review | Meeting | SS | Council | Award

Cycle II: Council | Award | R&R | Assign | Review | Meeting | SS

Cycle III: Review | Meeting | SS | Council | Award | R&R | Assign

http://grants1.nih.gov/grants/funding/submissionschedule.htm

11

Proposed Timeframe for R01s — Submission to Award

Two Main Overlapping Cycles per Year

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Cycle I

Council		Award		R&R	Assign	Review	Meeting	SS

Cycle II

Review	Meeting	SS	Council	Award	R&R	Assign

http://grants1.nih.gov/grants/funding/submissionschedule.htm

Reduce Number of Grant Cycles to Two Per Year

- Considerations:

  - Unclear whether two cycles would substantially change the workload for SROs and reviewers.

  - Unclear whether the extramural community would respond by submitting fewer applications.

  - One potential way to alleviate the burden may be to stagger the review of certain mechanisms.

Major Changes Under Consideration

- Consider ways of speeding funding decision making by the Institutes and Centers

- Reduce the number of granting cycles per year from three to two

- **Propose that NIH spending authority be extended beyond the fiscal year**

- Fund principal investigators rather than projects

- Develop and implement pre-application streamlining processes

Extend Spending Authority Beyond the Fiscal Year (FY)

- Budgetary considerations often cause a delay in funding decisions, resulting in a bottleneck at the end of the FY.

- Extending spending authority beyond the FY would allow ICs time to spread funding actions out more evenly throughout the year.

- Considerations:

  - The extension of NIH spending authority would require Congressional action.

  - Other Federal agencies with such authority indicate that it does little to lessen end of FY workload and sometimes results in loss of unobligated funds.

15

Major Changes Under Consideration

- Consider ways of speeding funding decision making by the Institutes and Centers

- Reduce the number of granting cycles per year from three to two

- Propose that NIH spending authority be extended beyond the fiscal year

- **Fund principal investigators rather than projects**

- Develop and implement pre-application streamlining processes

16

Fund More Person-Centered Grants

- Investigators spend a significant amount of time applying for grants to fund research projects, leaving less time to conduct research.

- Grants to fund investigators rather than specific projects would allow the investigators more time to establish research programs.

- Considerations:

  - Many ICs have piloted grant mechanisms that fund individuals rather than projects.

  - NIH could provide longer awards (e.g., 7 years) or different mechanisms to support early career investigators.

Major Changes Under Consideration

- Consider ways of speeding funding decision making by the Institutes and Centers

- Reduce the number of granting cycles per year from three to two

- Propose that NIH spending authority be extended beyond the fiscal year

- Fund principal investigators rather than projects

- **Develop and implement pre-application streamlining processes**

18

Pre-Application Processes

- The number of applications received by NIH continues to rise, and investigators spend a great deal of their time preparing applications.

- For some mechanisms, NIH could require a short pre-application that undergoes peer review (or programmatic review) to determine whether a full application is warranted.

- Considerations:

  - It is unclear whether NIH has authority to limit competition through a pre-application process.

  - Pre-application could increase the overall length of review.

Today's Agenda

Approaches to Streamlining Funding Decisions and Award Issuance

- **Walter J. Koroshetz, M.D.**
  - *Acting Director, National Institute of Neurological Disorders and Stroke, NIH*

Panel: Applicant Perspectives on Options to Streamline NIH's Grant Review, Award, and Management Process

- **Elva D. Diaz, Ph.D.**
  - *Associate Professor, Department of Pharmacology, University of California–Davis*
- **Ervin R. Fox, M.D.**
  - Professor of Clinical Cardiology, University of Mississippi Medical Center
- **Raquel Gur, M.D., Ph.D.**
  - Professor of Psychiatry Neurology and Radiology, University of Pennsylvania Perelman School of Medicine
- **David A. Savitz, Ph.D.**
  - Vice President for Research, Brown University

Today's Agenda *(cont.)*

Discussion of Preliminary Findings and Recommendations of the GRAMP Working Group

- **SMRB Members**
- **Richard K. Nakamura, M.D., Ph.D.**
  - Director, Center for Scientific Review, NIH
- **Della M. Hann, Ph.D.**
  - *Deputy Director, Office of Extramural Research, NIH*