

NIGMS Feedback Loop

A catalyst for interaction with the scientific community



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The *NIGMS Feedback Loop* e-mail newsletter alerts researchers to NIGMS [funding opportunities](#), trends, and plans. NIGMS grantees are automatically subscribed; we encourage other interested individuals to subscribe themselves. To subscribe, change your subscription options, or unsubscribe, visit the *NIGMS Feedback Loop* [subscription page](#) on the NIH LISTSERV Web site.

What information would you like to see in future issues? Send your ideas to NIGMS Feedback Loop coordinator James Deatherage (deatherj@nigms.nih.gov, 301-594-0828).

Director's Message

The budget process is in full swing. In the [last issue](#) of the *NIGMS Feedback Loop*, I reported that Congress had just passed a joint resolution appropriating funds for NIH for the remainder of Fiscal Year 2007. The resolution provided \$620 million over the NIH appropriation in the previous fiscal year, resulting in an effective increase of 1.2% in each institute and center budget. To make more funds available to support new and competing research grant applications, NIH set a policy that each noncompeting research project grant would be funded at 97.1% of its previously committed level. For NIGMS, the additional funds appropriated by Congress and this policy lead to a projected success rate of 29% for new and competing research grants in Fiscal Year 2007. This is approximately 3% higher than the previously projected level.

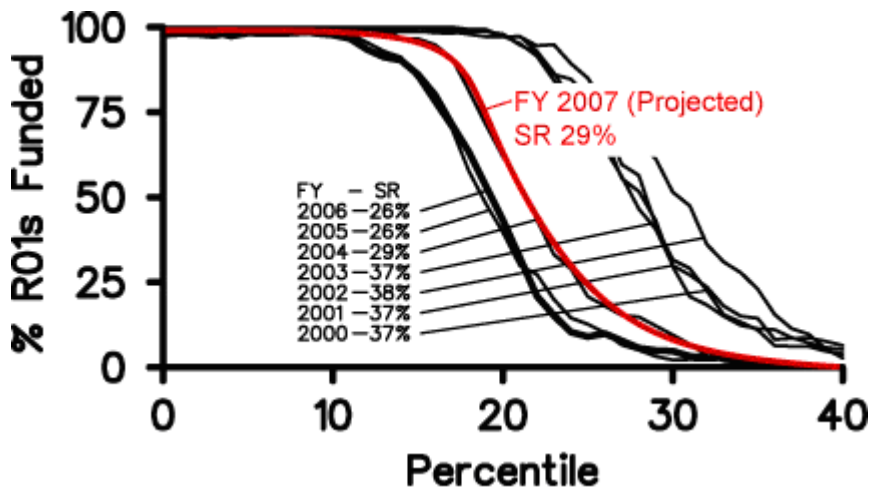


Figure 1. R01 funding curves for Fiscal Year 2000 through Fiscal Year 2006 and a projected curve for Fiscal Year 2007 (red). The projected success rate for Fiscal Year 2007 is 29%. A substantial number of grants above the 20th percentile have been and will be funded.

Along with their contribution to supporting research project grants, the additional funds provided by Congress were used to initiate two new NIH-wide programs: the [NIH Director's New Innovator Award](#) and the [NIH Director's Bridge Awards](#). I described the New Innovator program in the [last issue](#) of the *Feedback Loop*. The New Innovator Award complements the NIH commitment to fund approximately 1,500 R01 grants to new investigators over the course of Fiscal Year 2007. As part of this effort, NIGMS is working toward funding more than 190 such awards.

The Bridge Awards provide 1 year of support to investigators who have unamended or first-amended applications within 10 percentile points of the institute's or center's nominal payline and who also have relatively low levels of other research support. No action by the investigators is required to receive this support. NIH will utilize \$91 million for this program; the NIGMS portion is \$14 million, which will fund 51 investigators.

With regard to the Fiscal Year 2008 budget, both the House and Senate Labor-HHS-Education appropriations subcommittees have held hearings in the past few months. NIH Director Elias Zerhouni's submitted testimony is at http://www.nih.gov/about/director/budgetrequest/fy2008directors_senatebudgetrequest.htm, and mine is at http://www.nigms.nih.gov/About/Budget/Statements/March6_2007.htm. The Senate subcommittee also held a series of hearings with small groups of institute and center directors to explore in more detail the opportunities and challenges in different fields of biomedical science. I had the privilege of participating in a hearing organized on the theme "Frontiers of Science." The other institute directors at this hearing were Francis Collins of the National Human Genome Research Institute, Donald Lindberg of the National Library of Medicine, and Roderic Pettigrew of the National Institute of Biomedical Imaging and Bioengineering.

On June 7, the House subcommittee "marked up" the Labor-HHS-Education appropriations bill. This resulted in a proposed increase of \$750 million for the overall NIH appropriation—and a 1.5% increase for NIGMS—over the Fiscal Year 2007 level. On June 19, the Senate subcommittee "marked up" its bill, and the full Senate appropriations committee approved it on June 21. This bill proposes an increase of \$1 billion for NIH overall, including a 2.2% increase for NIGMS. Both bills provide funds for the New Innovator Award and the Bridge Award programs as well as for increases in the average size of research project

grants. These bills must continue to move through the House and Senate for eventual action by the President.

NIGMS Strategic Planning Update

As noted in the [previous issue](#) of the *Feedback Loop*, NIGMS is engaged in a strategic planning process. We requested input and received more than 225 responses, and we also held a meeting with a broad group of scientists from around the country to explore several key questions. We expect to present a draft strategic plan to the National Advisory General Medical Sciences Council at its September 2007 meeting and to post a draft plan on our Web site for comment before it is finalized.

One of the topics discussed at the strategic planning meeting was the role of larger, more targeted programs supported by NIGMS. Meeting participants were interested to see how the budgets of these programs compared to that for research project grants, as shown in Figure 2.

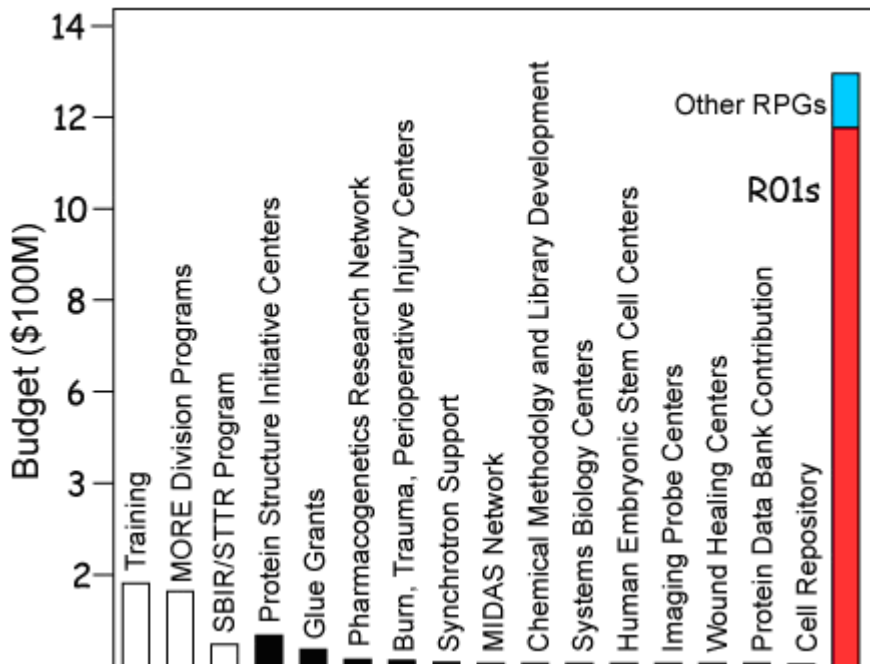


Figure 2. A histogram showing the annual budgets of some of the larger programs supported by NIGMS. The budgets for training, the Division of Minority Opportunities in Research, small business programs (SBIR/STTR), and research project grants (most of which are R01s) are also shown.

Protein Structure Initiative Assessment

As part of a process initiated some years ago, NIGMS is assessing its larger programs through a working group of the National Advisory General Medical Sciences Council. The first of these programs to be considered is the Protein Structure Initiative (PSI). An [outstanding group of scientists](#) is assisting in this effort, and its deliberations will be informed by input from scientists, scientific organizations, and other interested parties who respond to a [Request for Information](#). The deadline for responses is July 20.

Working Groups Examining NIH Peer Review

On June 8, Dr. Zerhouni announced the [formation of two working groups](#) charged with an examination of the NIH peer review process. One of these committees, co-chaired by Keith Yamamoto of the University of California, San Francisco, and Lawrence Tabak, Director of the National Institute of Dental and Craniofacial Research, is a working group of the Advisory Committee to the Director, NIH. This group will primarily solicit and compile input on peer review from the scientific community and other interested parties. The second committee, which I am co-chairing with Dr. Tabak, is a working group of the NIH Director's Steering Committee that will focus primarily on gathering input within NIH. One of the first activities of these committees will be a Request for Information to be released in early July. We will provide additional information as it becomes available.

As always, I welcome your comments or questions.

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Advisory Council Concept Clearances

Proposed new NIGMS research and training programs are made public at the open session of National Advisory General Medical Sciences Council meetings. Council approval of new initiatives (and major changes to existing initiatives) is called "concept clearance." Concept clearance authorizes NIGMS staff to develop plans, publish announcements in the [NIH Guide for Grants and Contracts](#), and fund grants. During the initiative planning stages that follow

concept clearance, NIGMS welcomes comments and suggestions from the community.

At its May 2007 meeting, the Council discussed the concept clearances summarized below. For additional details, see the [Council minutes](#) or contact the identified NIGMS staff members.

High-Resolution Probes for Cellular Imaging

The Council approved continuation of an ongoing NIGMS initiative to develop imaging probes with enhanced spectral characteristics. The program will support collaborations of small interdisciplinary teams to construct new classes of probes. For details, contact NIGMS program director Richard Rodewald at rodewalr@nigms.nih.gov or 301-594-0828.

Drug Docking and Screening Data Resource

The Council gave concept clearance for the establishment of a drug docking and screening data resource containing high-resolution structural and functional information for large groups of chemically related molecules bound to selected target proteins. The resource will collect, curate, and make publicly available some of the existing, but unpublished, data from industrial and academic sources. The resource also will generate new data to optimize and complete data sets and compare docking and screening tools. Program director Janna Wehrle (wehrlej@nigms.nih.gov, 301-594-0828) can answer questions.

Funding Opportunity

EUREKA!

Investigators seeking funding for novel, exceptionally innovative research that, if successful, will have a major impact on a broad segment of the scientific community are encouraged to apply for the R01 EUREKA award, which received concept clearance in January 2007. We expect the funding opportunity announcement ([RFA-GM-08-002](#)) to appear soon (at which time the preceding link will become active), with a receipt date in late October. For general questions about the initiative, contact NIGMS program directors Laurie Tompkins (tompkinl@nigms.nih.gov, 301-594-0943) or Ravi Basavappa (basavapr@nigms.nih.gov, 301-594-0828).

Program Projects for Basic Research on Human Embryonic Stem Cells

NIGMS re-announces its initiative for program projects that support research on the basic biology of human embryonic stem cells and promote the use of these cells as model systems for addressing significant questions in the basic biomedical sciences. We anticipate funding up to three P01 awards at a maximum of \$6.1 million in direct costs each over 5 years. Investigators must use cell lines listed in the [NIH Human Embryonic Cell Registry](#). For more information, see [RFA-GM-08-003](#) or contact program director Marion Zatz at zatzm@nigms.nih.gov or 301-594-0943.

Collaborative Studies on Systems Biology of Complex Phenotypes

NIGMS invites applications for collaborative R01 projects that use systems biology approaches to investigate the genetic determination of complex phenotypes. The team of principal investigators must include a geneticist and a systems biologist. We have set aside \$1.6 million to fund up to four awards in Fiscal Year 2008. For details, see [RFA-GM-08-001](#) or contact program directors Richard Anderson (andersor@nigms.nih.gov, 301-594-0943) or Matthew Portnoy (mportnoy@nigms.nih.gov, 301-594-0943).

National Centers for Systems Biology

NIGMS invites new and competing continuation applications for the [National Centers for Systems Biology](#), an initiative to promote the development of research, training, and outreach programs focused on the systems-level analysis of biological phenomena of biomedical importance. We expect to make up to three P50 awards in Fiscal Year 2008. See [RFA-GM-08-004](#) and contact program director Jerry Li (lij@nigms.nih.gov, 301-594-0828) for more information.

Research on Interventions that Promote Research Careers

These R01 grants will support research that tests assumptions regarding existing or potential interventions to increase interest, motivation, and preparedness for careers in biomedical and behavioral research, especially among underrepresented minority students. A desirable outcome of the proposed research would be the identification of new principles that would inform practice. We expect to make between six and eight awards, each ranging from \$100,000 to \$250,000 in direct costs. For additional information about the program, see

[RFA-GM-08-005](#) or contact program director Shiva Singh at singhs@nigms.nih.gov or 301-594-3900.

Diversity and Reentry Supplements

As part of an NIH-wide program, NIGMS offers grant supplements to assist principal investigators in increasing the diversity of the biomedical workforce and promoting reentry into biomedical and behavioral research careers. For details about the supplement programs, see the [NIGMS Research & Administrative Supplements Web site](#) or contact Anthony René, NIGMS assistant director for referral and liaison, at renea@nigms.nih.gov or 301-594-3833.

NIGMS-Sponsored Events

SACNAS Conference

The [annual meeting](#) of the Society for Advancement of Chicanos and Native Americans in Science will take place from October 11-14, 2007, in Kansas City, MO, to investigate questions related to the development of a new generation of scientific leaders from underrepresented groups.

ABRCMS

The [Annual Biomedical Research Conference for Minority Students](#), the largest professional conference for biomedical students, will meet in Austin, TX, from November 7-10, 2007. The conference is designed to encourage underrepresented minority students to pursue advanced training in the biomedical and behavioral sciences and provide faculty mentors and advisors with resources for facilitating students' success.

Resources

Pharm.D. Gateway

NIGMS has created the [Pharm.D. Gateway to NIH](#) to provide information about NIH funding opportunities for Pharm.D. students, postdoctoral researchers, and faculty interested in biomedical and behavioral research.

Free Science Education Materials

NIGMS announces its latest science education publication, [The New Genetics](#). This booklet and others we offer on [cell biology](#), [pharmacology](#), [structural biology](#), and [biochemistry](#) are targeted to high school and college audiences. Our semi-annual magazine, [Findings](#), features profiles of NIGMS-funded scientists. We have also developed a [curriculum supplement](#) on the scientific process for use by middle school teachers. Feel free to [browse our publications online](#), order copies for your own use, and tell colleagues, teachers, and students about these free materials.

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