

# NIGMS Feedback Loop

*A catalyst for interaction with the scientific community*



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**March 5, 2008**

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The *NIGMS Feedback Loop* e-mail newsletter alerts researchers to NIGMS [funding opportunities](#), trends, and plans. NIGMS grantees and recent applicants 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 (301-594-0828, [deatherj@nigms.nih.gov](mailto:deatherj@nigms.nih.gov)).

# Director's Message

I would like to welcome a new group of readers to the *NIGMS Feedback Loop*: investigators who have recently submitted applications assigned to NIGMS. We hope that these individuals will find useful information in this electronic newsletter, which is intended to be a catalyst for interaction between the Institute and the scientific community. Published three times a year, the *NIGMS Feedback Loop* alerts scientists to our funding opportunities, trends, and plans. Although we automatically subscribe NIGMS principal investigators and applicants, recipients are free to unsubscribe and others are welcome to subscribe. We value—and strongly encourage—reader feedback on the content of each issue or on other matters, as well as input on topics for future issues.

## Financial Management Plan for Fiscal Year 2008

In the last issue of the [NIGMS Feedback Loop](#), I noted that Congress had passed a Conference Report on H.R. 3043, which included a 3.1% increase for NIH overall and a 2.5% increase for NIGMS, and that the President had vetoed this bill. After much negotiation, Congress passed and on December 26, 2007, the President signed the Consolidated Appropriations Act, 2008 (Public Law 110-161). This legislation includes a 0.46% increase for NIH overall (after correcting for a transfer to the Global Fund to Fight HIV/AIDS, Malaria, and Tuberculosis) and no increase for NIGMS.

Based on this appropriation, [NIH](#) and [NIGMS](#) have developed financial management plans. The appropriations bill provides a 1% inflation allowance for noncompeting grants. This allowance is predicated on the notion that modular grants have 3% inflationary escalations built in when their budgets are developed. This year, NIH institutes and centers were given flexibility with regard to how they would implement this overall policy. After much discussion, NIGMS developed a plan that provides support to modular grants at their previously committed levels while reducing nonmodular grant commitment levels (which generally include annual cost escalations of 3% in many budget categories) by 2.9%. The plan affirms that NIGMS will continue to emphasize the support of early career investigators, consistent with an [NIH-wide commitment](#).

The impact of this year's appropriation on the NIGMS success rate is considerable. Whereas last year we were able to reach a success rate of 32% for research project grants (RPGs), this year we are projecting an RPG success rate of 22%. Recall that success rate is defined as the percentage of reviewed applications that receive funding in a fiscal year. It is determined by dividing the number of new and competing applications funded by the sum of the total number of competing applications reviewed in the same fiscal year and the number of funded carryovers (funded applications that were reviewed the previous year). Note that applications with one or more resubmissions in the same fiscal year are only counted once. Success rate should not be confused with percentile, which is a measure of how well an application scored in relation to others in a defined pool.

Why is there such a substantial drop in projected success rate? Four factors come into play. First, since NIH grants average 4 years in duration, approximately three-fourths of the NIGMS budget is already committed to ongoing, noncompeting grants, and the size of this commitment base affects the number of new and competing RPGs that can be

made. In Fiscal Year 2007, NIGMS was able to fund 1,116 new and competing RPGs, compared with 944 for Fiscal Year 2006. Since most of these grants continue into 2008, their increased number raises the commitment base from 2,800 in Fiscal Year 2007 to 2,955 in Fiscal Year 2008.

Second, given that less than one-fourth of the budget is available for new and competing grants, the number of these grants we are able to fund is quite budget-sensitive. For example, a 1% increase in the NIGMS budget would correspond to an additional \$19 million. If all of these funds were used to support new and competing RPGs, we could fund more than 50 additional grants. This would increase the number of new and competing grants that we could support by approximately 5% and increase our success rate by approximately 1.5%.

Third, the projected success rate is dependent on a projected number of applications. For example, in Fiscal Year 2007, there were 3,482 applications in the success rate base, compared with 2,915 such applications in 2003. At this point in Fiscal Year 2008, we are projecting 3,830 applications in the success rate base.

Finally, the average grant size determines how many RPGs can be awarded with a given amount of money. As most grantees who have been funded in recent years know, we have been making substantial reductions from requested levels, in many cases cutting up to 24% from new grants. We are aware that the average costs of NIGMS grants have not reflected inflation in personnel and other research expenses, so as in previous years, we intend to allow average costs to grow slightly.

Taken together, these factors lead us to project that NIGMS will be able to award 825 new and competing RPGs in Fiscal Year 2008. With 3,830 applications in the success rate base, our projected success rate is 22%.

On February 4, the President released his budget request for Fiscal Year 2009. The proposed budgets for [NIH](#) and [NIGMS](#) are at the Fiscal Year 2008 levels. The release of the President's budget request is the first step in the appropriations process. A hearing is scheduled today (March 5) before the House subcommittee that handles NIH appropriations, and a Senate hearing is upcoming. My [written testimony](#) and [Dr. Zerhouni's written testimony](#) on the Fiscal Year 2009 budget are now available.

## Enhancing Peer Review

Since June 2007, NIH has been engaged in an intensive examination of ways to enhance its peer review process. The charge from NIH Director Elias Zerhouni to the groups leading these efforts has been to identify enhancements to “fund the best science, by the best scientists, with the least administrative burden,” with an understanding that “best” is dependent on many factors, including scientific quality, public health impact, the mission of an institute or center, and the current NIH portfolio. Working groups have been examining the entire funding system, from application structure to the roles of peer reviewers, NIH staff, and advisory councils.

The working groups submitted a draft report to Dr. Zerhouni on February 28. The [report](#) and a [presentation highlighting the key issues](#) are available at the [Enhancing Peer Review at NIH Web site](#). Note that these are draft recommendations, and no decisions have yet been made regarding which recommendations will be accepted and how they

will be implemented, although Dr. Zerhouni intends to move swiftly. We are very interested in your comments on these recommendations. Please respond directly to me at [bergj@mail.nih.gov](mailto:bergj@mail.nih.gov) or to [PeerReviewRFI@mail.nih.gov](mailto:PeerReviewRFI@mail.nih.gov) by Monday, March 17.

## Protein Structure Initiative

At its January 2008 meeting, the National Advisory General Medical Sciences Council discussed the [report of the Protein Structure Initiative \(PSI\) Assessment Panel](#). This is the first of a series of planned assessments of NIGMS large grant programs. The new chief of the NIGMS Office of Program Analysis and Evaluation, [Juliana Blome](#), will work with a Council subcommittee on these studies.

The PSI assessment is one step toward developing plans for future NIGMS support of structural biology. The next step will be one or more workshops focused on the roles of structural studies in biomedical research, including experimental methods and the uses of homology models. If you are interested in participating in such workshops or would like to recommend someone for consideration, please contact me at [bergj@mail.nih.gov](mailto:bergj@mail.nih.gov).

I would also appreciate your [feedback](#) on the [PSI Structural Genomics Knowledgebase](#), a new Web site that serves as a gateway for the biomedical research community to all of the protein structure and production resources created by the PSI.

## NIGMS Strategic Plan

We recently issued [Investing in Discovery: National Institute of General Medical Sciences Strategic Plan 2008-2012](#). If you would like to receive a printed copy of the plan, please contact the NIGMS Office of Communications and Public Liaison at 301-496-7301 or [info@nigms.nih.gov](mailto:info@nigms.nih.gov).

As always, I welcome your comments and questions.

Best,

Jeremy M. Berg  
Director  
National Institute of General Medical Sciences  
[bergj@mail.nih.gov](mailto:bergj@mail.nih.gov)

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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 January 2008 meeting, the Council discussed the concept clearances summarized below. For additional details, see the [Council minutes](#) or contact the identified NIGMS staff members.

## Expanding the Chemical Space of Carbohydrates

Ready access to specialized reagents and tools are necessary to move the emerging field of glycomics forward. The Council gave concept clearance for applications to: develop straightforward new methods to rapidly synthesize carbohydrate libraries and functionalize/link carbohydrates; develop efficient high-throughput screening tools for exploring glycan-protein, glycan-lipid, and glycan-glycan interactions; and synthesize carbohydrate standards needed for structural analysis. For details, contact Program Director Pamela Marino at 301-594-3827 or [marinop@nigms.nih.gov](mailto:marinop@nigms.nih.gov).

## Reannouncing MIDAS

The Council approved plans to reannounce and expand the current [Models of Infectious Disease Agent Study](#) program. We intend to issue:

- Cooperative agreements (U01) for groups to develop computational models of the emergence, spread, and mitigation of infectious diseases;
- Cooperative agreements (U54) for Centers of Excellence that will carry out research on the modeling of infectious diseases, develop outreach programs in public health policy, and establish training programs for infectious disease modeling; and
- A cooperative agreement (U24) for an information technology resource that will provide data repository and data management, software development, and informational services to the MIDAS Network.

We expect to publish announcements in late March, with application deadlines in July 2008 (U01 and U24) and November 2008 (U54). Address questions to Program Director Jim Anderson at 301-594-0943 or [andersoj@nigms.nih.gov](mailto:andersoj@nigms.nih.gov).

## Predoctoral Research Training for Doctor of Pharmacy Students

The Council approved plans to support individual predoctoral fellowship awards to Pharm.D. students who are enrolled in Ph.D. graduate programs and who are pursuing

areas that meet the research mission of NIGMS. For more information, contact Program Director Richard Okita at 301-594-3827 or [okitar@nigms.nih.gov](mailto:okitar@nigms.nih.gov).

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## Funding Opportunities

### Drug Docking and Screening Data Resource (U01)

We invite applications for a Drug Docking and Screening Data Resource (see [RFA-GM-08-008](#)) to collect, curate, and generate structural and binding data about protein-ligand complexes. The resulting database, which will be publicly available on the Internet, is intended to advance the development of reliable *in silico* drug screening software. Apply by March 18, 2008. Address questions to Program Director Janna Wehrle at 301-594-0828 or [wehrlej@nigms.nih.gov](mailto:wehrlej@nigms.nih.gov).

### Administrative Supplements for Human Pluripotent Stem Cell Research

To support research on the derivation and/or characterization of human pluripotent stem cells from non-embryonic sources, NIGMS-funded investigators may be eligible for 1-year administrative supplements (now called “revisions”; see [NOT-NS-08-013](#)) of up to \$75,000 in direct costs. Before submitting a request, we strongly encourage you to determine your eligibility by contacting your program director or Program Director Marion Zatz at 301-594-0943 or [zatzm@nigms.nih.gov](mailto:zatzm@nigms.nih.gov).

### NIH Director’s New Innovator Awards (DP2)

NIH has announced the second competition for [NIH Director’s New Innovator Awards \(RFA-RM-08-014\)](#). These grants support a small number of exceptionally creative new investigators who propose bold and highly innovative new research approaches with the potential for significant impact on major problems in biomedical and behavioral research. Awards will be for up to \$1.5 million in direct costs over 5 years. The deadline to apply is March 31, 2008.

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## NIGMS-Sponsored Events

### Protein Structure Initiative “Bottlenecks” Workshop

The annual workshop to address challenges and technical barriers to the high-throughput determination of protein structures will take place on the NIH Bethesda campus from April 14-16, 2008. While the meeting is organized for participants in structural genomics projects, others may attend on a space-available basis. For additional details or to register, [visit the workshop’s Web site](#) or contact Program Director Charles Edmonds at 301-594-4428 or [edmondsc@nigms.nih.gov](mailto:edmondsc@nigms.nih.gov).

# Bridges to the Baccalaureate Program Technical Assistance Workshop

This [workshop](#), scheduled for April 18, 2008, on the NIH Bethesda campus, will inform applicants about essential program features (see [PAR-07-411](#)) and offer guidance on preparing applications for the next submission dates of September 18, 2008, and January 22, 2009. Space is limited and advance registration is recommended. For questions, contact Program Directors Shiva Singh ([singhs@nigms.nih.gov](mailto:singhs@nigms.nih.gov)) or Jermelina Tupas ([tupasi@nigms.nih.gov](mailto:tupasi@nigms.nih.gov)) at 301-594-3900.

## Interventions Conference

The [2nd Annual Conference on Understanding Interventions That Encourage Minorities to Pursue Research Careers](#) will convene in Atlanta, GA, from May 2-4, 2008. The meeting offers a forum for exchanging information on hypothesis-based research on interventions that broaden participation in science careers.

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# Research Administration Notes

## New Year, New Policies

There are notable new policies and policy changes for all applications submitted for due dates on or after May 25, 2008. These include:

[Genome-Wide Association Studies Data Sharing](#)

[Clinical Trials Registration in ClinicalTrials.gov](#)

[Public Access to Publications from NIH-Funded Research](#)

## Diversity Supplements

Do you have a question about Research Supplements to Promote Diversity in Health-Related Research (see [PA-05-015](#))? Our new contact is John Whitmarsh (301-451-6446, [whitmarj@nigms.nih.gov](mailto:whitmarj@nigms.nih.gov)), who follows the recently retired Anthony Rene as Special Assistant to the Director. These supplements encourage research participation by—and mentoring of—individuals from underrepresented racial and ethnic groups; individuals with disabilities; and individuals from socially, culturally, economically, or educationally disadvantaged backgrounds. Principal investigators may request supplements to support high school, undergraduate, and graduate students; postdoctoral fellows; and faculty. We welcome more than one supplement per parent grant.

# Communicating Your Research Results

Help us spread the word about the results of NIGMS funding by acknowledging our support of your research in journal articles (citing your NIGMS grant by number whenever possible), oral or poster presentations, news releases, interviews with reporters, and other communications. When a manuscript describing an exceptionally significant finding is accepted for publication, please contact your program director to discuss the possibility of a news release or other publicity to help inform the American public about the value of NIH-funded research. We always honor journal embargoes. For more information, contact Communications Director Ann Dieffenbach at 301-496-7301 or [dieffena@nigms.nih.gov](mailto:dieffena@nigms.nih.gov).

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## Resources

### PSI Structural Genomics Knowledgebase

Need to know more about a particular protein? Try searching the new [Protein Structure Initiative Structural Genomics Knowledgebase](#). The PSI created the site as a Web portal for information about structures and other products of the PSI centers. The site, parts of which are still being developed, aims to make access easy for nonspecialists. If you visit the PSI SGKB and would like to offer feedback about it, please contact NIGMS Director Jeremy M. Berg at 301-594-2172 or [bergj@mail.nih.gov](mailto:bergj@mail.nih.gov).

### Human Genetic Cell Repository

The [NIGMS Human Genetic Cell Repository](#) contains nearly 10,000 cell lines and DNA derived from them. The collection represents about 600 distinct human genetic disorders and many chromosomal abnormalities. The genetic defect has been characterized at the molecular level for nearly 1,600 lines. The collection includes samples with all common mutations associated with diseases such as breast cancer, cystic fibrosis, hemochromatosis, and thrombotic disorders. It also contains samples from individuals with Fragile X in which the number of repeats of the FMR1 gene have been characterized. Samples from a large number of apparently normal individuals, including those from diverse geographic locations, are also available. Visit the repository Web site for more details, a listing of all samples, and ordering information.

# NIGMS Image Gallery

We have just launched a searchable, online [image gallery](#) featuring the work of our grantees. If you would like to share your images or videos that are free of copyright restrictions, please send them, along with a caption and credit details, to [info@nigms.nih.gov](mailto:info@nigms.nih.gov). Contact Science Writer Karin Jegalian at 301-496-7301 or [jegaliak@mail.nih.gov](mailto:jegaliak@mail.nih.gov) with questions.

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