

# NIGMS Feedback Loop

*A catalyst for interaction with the scientific community*



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The National Institute of General Medical Sciences (NIGMS) is one of the National Institutes of Health in the U.S. Department of Health and Human Services. By supporting basic biomedical research and training nationwide, NIGMS lays the foundation for advances in disease diagnosis, treatment, and prevention.

The *NIGMS Feedback Loop* is an e-mail newsletter alerting researchers to NIGMS [funding opportunities](#), trends, and plans. We encourage your [input and feedback](#) on Institute activities.

All NIGMS grantees are automatically subscribed to the *NIGMS Feedback Loop*; other interested individuals are encouraged to subscribe themselves. To subscribe, change your subscription options, or unsubscribe, visit the *NIGMS Feedback Loop* [subscription page](#) on the NIH LISTSERV Web site.

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## A Message from the NIGMS Director

Developing a strong scientific workforce is a core element of the NIGMS mission. We support this goal through a range of training programs in addition to our research funding activities.

One NIGMS component, the [Division of Minority Opportunities in Research](#) (MORE), focuses on increasing the representation of groups that have traditionally been underrepresented in the biomedical research workforce. The division utilizes a wide variety of mechanisms to address this aim.

Recently, the [National Advisory General Medical Sciences Council](#) formed a working group to examine MORE division programs and explore alternative approaches to increasing the diversity of the biomedical workforce to more closely match the diversity of American society. The working group presented its initial report at the January 26 advisory council meeting. The report is now available on the NIGMS Web site, and I invite those of you with an interest in mentoring, training, or workforce issues to [read it](#).

The efforts of this working group are linked to similar efforts across NIH to examine existing programs and consider creative new approaches to broadening participation in biomedical research. On January 27, NIH director Elias A. Zerhouni announced one such activity: the NIH [Pathway to Independence award](#), a new program to aid the transition of scientists to independent careers. These awards will support 1 to 2 years of mentored postdoctoral work followed by up to 3 years of research in an independent, tenure-track or equivalent position. Both U.S. citizens and noncitizens are eligible for these awards. Women and members of groups underrepresented in biomedical research are

encouraged to apply. The first deadline for applications is April 7, 2006.

All NIH institutes and centers are participating in this program. In making funding decisions, NIGMS will give high priority to applications that are directly related to the missions of its [divisions and center](#), including those of the MORE division.

On February 6, the President released his budget request for Fiscal Year 2007. The proposed budget for NIH is \$28.587 billion, the same as the budget enacted for Fiscal Year 2006. The proposed budget for NIGMS is \$1.923 billion, a reduction of 0.7 percent from the \$1.936 billion budget enacted for Fiscal Year 2006. In mid-March, Dr. Zerhouni will present the Fiscal Year 2007 NIH budget to the House and Senate appropriations subcommittees for their consideration and action.

Following up on the [data for R01 grants](#) presented in the previous edition of the Feedback Loop, we have posted plots of the number of grants funded versus the priority score for Fiscal Year 2005 for [three additional mechanisms](#): Small Business Innovation Research (SBIR) grants (R43), Ruth L. Kirschstein National Research Service Awards for Individual Postdoctoral Fellows (F32), and Academic Research Enhancement Award (AREA) grants (R15).

I welcome your feedback on these or other topics.

Jeremy M. Berg  
Director  
National Institute of General Medical Sciences  
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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 September 2005 meeting, the Council discussed the concept clearances summarized below. For additional details, see the [Council minutes](#) or contact the identified NIGMS staff member.

### ***Basic Research on Human Embryonic Stem Cells***

NIGMS is the major source of NIH support for research on the basic biology of human embryonic stem cells (hESC). The current NIGMS commitment of \$7 million to support small-scale efforts (supplements and P20 Exploratory Centers) will end in Fiscal Year 2006-Fiscal Year 2008. In order to maintain the Institute's commitment to basic hESC research in future years, the Council approved a request for applications for program project (P01) grants. The plan for program projects was developed with input from NIGMS grantees who attended an April 2005 [workshop on recent progress and future directions in hESC research](#).

Each grant would include core resources to provide an institutional infrastructure to grow, maintain, and further characterize federally approved hESC lines. This core also would support the development of research tools and reagents to enhance the use of hESC as a model system and train investigators to work with hESC. In addition, each program project must also support at least three related, R01-like hESC research projects relevant to the NIGMS mission.

NIGMS has set aside \$6 million in Fiscal Year 2007 to fund up to three grants under this initiative, which is still being developed. We welcome your suggestions.

For more information or to comment, contact NIGMS program director Marion Zatz at [zatzm@nigms.nih.gov](mailto:zatzm@nigms.nih.gov) or 301-594-0943.

### ***Economic, Ethical, Legal, and Social Studies of Pharmacogenetics Research***

The Council approved a program announcement for R01 applications addressing economic, ethical, legal, and social issues (EELSI) related to pharmacogenetics research and the challenge of translating basic research results into clinical practice.

Areas of interest under consideration for the program include banking

samples, informed consent, data-sharing, rights to intellectual property in pharmacogenetics, economic factors in medical and personal decision making, cultural preferences in personalized medicine, and how pharmacogenetic tests differ from other genetic testing.

The EELSI program announcement is still being developed, and we seek input from researchers with expertise in these and other relevant areas.

For more information or to comment, contact NIGMS program director Rochelle Long at [longr@nigms.nih.gov](mailto:longr@nigms.nih.gov) or 301-594-3827.

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## Funding Opportunities

### *Career Development in Clinical Research Fields*

NIGMS invites qualified academic physicians beginning their independent research careers in anesthesiology, clinical pharmacology, or trauma and burn injury to apply for the K08 Mentored Clinical Scientist Development Award or the K23 Mentored Patient-Oriented Research Career Development Award.

These awards have institute-specific eligibility restrictions. We strongly encourage interested individuals to speak with NIGMS program staff before preparing an application to determine eligibility and receive general advice.

For more information, see the [Mentored Career Development Awards in Anesthesiology, Clinical Pharmacology, and Trauma and Burn Injury page](#) on the NIGMS Web site or contact one of the following NIGMS program directors, based on your area of interest.

- Anesthesiology, Alison Cole, [colea@nigms.nih.gov](mailto:colea@nigms.nih.gov);
- Clinical pharmacology, Richard Okita, [okitar@nigms.nih.gov](mailto:okitar@nigms.nih.gov);
- Trauma, burn, and perioperative injury, Scott Somers, [somerss@nigms.nih.gov](mailto:somerss@nigms.nih.gov);
- Wound healing, Richard Ikeda, [ikedar@nigms.nih.gov](mailto:ikedar@nigms.nih.gov).

You also can reach any of them by phone at 301-594-3827.

### *Structural Biology of Membrane Proteins*

This new R01 program announcement offers support for the development of new methods and the application of current methods for solving specific membrane protein structures. Areas of interest include innovative methods for producing membrane proteins in quantities sufficient for characterization and structural studies of membrane proteins.

One objective of this announcement is to stimulate collaborations among chemists, biochemists, molecular biologists, and biophysicists with expertise in the synthesis of probes and novel solubilizing and stabilizing reagents; cloning and expression; isolation and characterization of membrane-bound proteins; and X-ray crystallography, NMR, and other structural methods.

For more information, see [PA-06-119](#) in the NIH Guide and contact NIGMS cell biology program director Jean Chin at [chinj@nigms.nih.gov](mailto:chinj@nigms.nih.gov) or 301-594-0828, or NIGMS biochemistry program director Peter Preusch at [preuschp@nigms.nih.gov](mailto:preuschp@nigms.nih.gov) or 301-594-3827.

### ***NIH Pathway to Independence Awards***

This new NIH-wide program helps investigators receive R01 awards earlier in their research careers by providing highly promising postdoctoral scientists with up to 2 years of mentored support, followed by up to 3 years of additional support contingent on securing an independent research position.

For more information, see [PA-06-133](#) in the NIH Guide and the [eligibility criteria for each participating institute or center](#).

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## **NIGMS-Sponsored Events**

### ***Short Courses in Integrative and Organ Systems Science***

Interested registrants of the Experimental Biology 2006 meeting are encouraged to attend a workshop on four NIGMS-funded summer courses that provide specialized training for using intact organ system and *in vivo* animal models in research.

The workshop is scheduled from 12:30-2:00 p.m. on Monday, April 3, at the Moscone Convention Center in San Francisco. Attendees will hear

from this summer's course directors and from students who participated last summer.

For more information, see the Monday afternoon heading in the Special Sessions section of the [Experimental Biology 2006-ASPET Program Web page](#) or contact NIGMS program director Peter Preusch at [preuschp@nigms.nih.gov](mailto:preuschp@nigms.nih.gov) or 301-594-3827.

### ***Protein Structure Determination and Target Selection***

NIGMS program director Charles Edmonds invites interested individuals to attend two workshops related to protein structure determination and target selection.

The first workshop—scheduled for April 13-14, 2006, in the NIH Natcher Conference Center, Bethesda, MD—will address bottlenecks to high-throughput structure determination.

The second workshop—scheduled for June 26-27, 2006, also in the Natcher Conference Center—will address issues of protein structure target selection.

Space is limited; advance registration for these meetings is required. For more information, contact Dr. Edmonds at [edmondsc@nigms.nih.gov](mailto:edmondsc@nigms.nih.gov) or 301-594-0828.

### ***Predictive Models of Complex Systems***

Interested investigators, postdoctoral fellows, and students are invited to attend a research symposium highlighting the emerging use of empirically detailed computer simulation models in biology, with examples drawn from molecular and cellular biology, developmental biology, neurobiology, and physiology.

Speakers will include the principal investigators from the five [NIGMS National Centers for Systems Biology](#) and other prominent scientists working in systems biology and allied fields.

The meeting is scheduled from June 3-7, 2006, at the University of Washington's Friday Harbor Laboratories, located on San Juan Island.

Advance registration for this meeting is required and is limited to 65

participants. For more information, see the [symposium Web page](#) (which includes an online registration form) or contact NIGMS program director Jerry Li at [lij@nigms.nih.gov](mailto:lij@nigms.nih.gov) or 301-594-0828.

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## Research Administration Notes

### *R21 Program Redesign*

NIGMS is redesigning its R21 program for [Exploratory Studies for High Impact/High Risk Research](#) (PA-03-100) and will no longer accept applications submitted in response to PA-03-100 after March 1, 2006. We expect to announce the new R21 program before the end of 2006.

Other R21 program announcements on which NIGMS is listed are not affected by this change.

For more information, contact NIGMS program director Laurie Tompkins at [tompkinl@nigms.nih.gov](mailto:tompkinl@nigms.nih.gov) or 301-594-0943.

### *Help Us Communicate Your Research Results*

Please 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 when possible), oral or poster presentations, news releases, interviews with reporters, and other communications.

If you have a manuscript accepted for publication that describes an especially significant finding, please contact your NIGMS program director to discuss the possibility of a news release or other publicity. (NIGMS honors journal embargoes in its news releases). Also consider submitting research advances and images for inclusion in [Biomedical Beat](#), a monthly news digest from NIGMS.

For more information, contact Ann Dieffenbach, chief of the NIGMS Office of Communications and Public Liaison, at [dieffena@nigms.nih.gov](mailto:dieffena@nigms.nih.gov) or 301-496-7301.

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## Resources

### ***Training Town Hall Meeting Videocast and Report***

Comments and insights concerning possible revisions to fiscal policies governing NIH institutional training grants (T32, T34, and T35) and individual fellowships (F30, F31, F32, and F33) from a November 30, 2005 NIH town hall meeting are now available on the NIH Web site. Discussion at the event focused primarily on funding costs such as tuition, fees, and health insurance provided through institutional training grants (T32). View the [videocast of the entire meeting](#) (requires free [RealPlayer](#)) or read the [summary report](#) (189 KB Microsoft Word document).

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