

NATIONAL HUMAN GENOME RESEARCH INSTITUTE

FUNDING POLICY FOR FISCAL YEAR 2012

INTRODUCTION

In 2011, the National Human Genome Research Institute (NHGRI) launched a new Strategic Plan for the field of genomics - [*Charting a course for genomic medicine from base pairs to bedside*](#) (*Nature* **470**: 204 – 213; <http://www.genome.gov/27543215>) – articulating a new vision for the future of genomics research and describing the path towards an era of genomic medicine. To implement this vision, NHGRI will support the development of resources, methods and technologies that will accelerate research in understanding the structure of genomes; understanding the biology of genomes; understanding the biology of disease; advancing the science of medicine; and improving the effectiveness of health care. NHGRI will also support research in several cross-cutting areas, including the effect of genomics research on society, training of investigators, and the dissemination of genome information to the public and to health professionals, as described in the Strategic Plan.

FUNDING

Strategy

The extramural research program of the National Human Genome Research Institute (NHGRI) is developed and guided by periodic planning processes, as reflected in the new strategic plan referred to above, as well as earlier, similar documents. NHGRI's development of a strategic plan involves participation by many scientists in the extramural community, as well as other scholars and members of the public, and is overseen and approved by the National Advisory Council for Human Genome Research (NACHGR). With guidance from the NACHGR, the program staff develops research initiatives to carry out the Institute's mission. Many of the NHGRI programs, such as the Encyclopedia of DNA Elements (ENCODE), Large-scale Sequencing, and several others are regularly assessed and periodically reviewed by the Council and its working groups to ensure that they remain at the leading edge of biomedical research and technology and so that the Institute has a means for expanding into new areas of opportunity as they arise.

Within the scope of this overall guidance, a plan for funding NHGRI's research and training and career development programs is developed each fiscal year. Some factors that affect this funding plan include commitments from prior years, special initiatives that implement objectives described in the strategic plan through Requests for Applications and other solicitations, emerging scientific opportunities, and available funds. The NHGRI strongly encourages prospective

applicants and grantees to discuss their research ideas with the appropriate staff as soon as possible during the consideration and preparation of an application, to ensure that any submitted application is responsive to the NHGRI's dynamic research mission.

Guidelines

Research Project and Center Grants

The Consolidated Appropriations Act of 2012 (P.L. 112-74) provides NIH with a net increase of less than 1 percent over the FY 2011 NIH budget (See NOT-OD-12-036 at <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-12-036.html>). Accordingly, the NHGRI must make efforts to keep the average size of awards constant at FY 2011 levels or lower. Consistent with NIH-wide policies, NHGRI's FY 2012 non-competing research portfolio will be evaluated to remove any cost of living/inflationary increases from FY 2011 committed levels. Inflationary increases will also be removed from any future fiscal year commitments. Other select budgetary considerations are noted below.

Non-Competing Grants:

- If applicable, inflationary increases will be removed from all RPG and Center grants, including previously protected mechanisms, such as R03, R13, R15, R21, R00 and applications under \$250,000 total costs.
- Modular research grants will be maintained at the FY 2011 level (no built-in inflation assumed), except for those with varying modules for programmatic increases/decreases.
- No adjustment will be made for salary cap for the current or any future years; however, grantees must charge based on the applicable level in place at the time of the initial Issue Date of the FY2012 award (See NOT-OD-12-035 at <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-12-035.html>).
- Select programs may potentially receive further reductions to support activities in areas of higher program priority.

Competing Applications:

- The budgets of new competing applications will be evaluated to assess the appropriateness of the budget to the timeliness of the research goals.
- In general, most projects will be funded for three years; exceptions will be made based on factors such as career stage of the principal investigator, program priorities, needs of the specific research project, how fast the field is changing, and the level of risk.

- Applications that address issues relevant to the strategic plan will be strongly favored. The strategic plan identifies the following criteria for high priority: technology development, methods development, comprehensiveness, and ability to scale.
- Institute-negotiated cost reductions for new and competing RPG and Center applications, beyond those recommended by peer review, will be handled on a case-by-case basis.
- Competing continuation applications that request significant increases over the previous year's budget will be evaluated for the appropriateness of the increases.
- No escalation will be granted for inflationary increases in future years.
- Requests for future year budget increases due to programmatic needs, e.g., equipment, additional personnel, etc. will be considered only if well justified.
- Innovation, impact score, timeliness of the project, program priorities, and whether the applicant is an early stage investigator or a first-time competing renewal principal investigator will be major considerations in funding applications that are taken out of priority score order.
- The Institute will pay special attention to applications from early stage investigators by helping them become established investigators by providing support for four or five years, and by ensuring that the budget is sufficient to support the proposed research.
- The Institute is aware that principal investigators who submit their first renewal applications may be at-risk for a gap in funding, so special consideration will be given to such applications during the development of funding plans.
- The Institute has always encouraged and supported innovative research, and will increase these efforts by supporting applications that receive highly meritorious scores for innovation, but with overall impact scores that would otherwise preclude them as candidates for funding.

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs

Non-competing Applications:

SBIR and STTR applications will be evaluated to remove any inflationary increases from FY 2011.

Competing Applications:

- Funding levels will be awarded in accordance with the SBA/NIH implementation of the Re-Authorization PL 112-81 signed December 31, 2011.

- Applications that address issues relevant to the strategic plan will be strongly favored. The strategic plan identifies the following criteria for high priority: technology development; methods development; comprehensiveness; and ability to scale.
- The impact score, timeliness of the project, and program priorities will be major considerations in funding applications that may be taken out of priority order.
- Institute-negotiated cost reductions for new and competing awards, beyond those recommended by peer review, will be handled on a case-by-case basis.
- No escalation will be granted for inflationary increases.

Research Career and Research Training Awards

Information about NIH's policy on Ruth L. Kirschstein National Research Service Award (NRSA) Stipends, Tuition/Fees and Other Budgetary Levels Effective for Fiscal Year 2012 can be found at:

<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-12-033.html>

Non-competing Applications:

- Ruth L. Kirschstein National Research Service Awards (NRSA) applications (fellowship (F) and training (T), will be awarded with a two (2) percent increase of all stipend levels per the NIH Guide Notice noted above.
- Career Development (K) will be awarded at the full 2012 commitment levels, less any inflationary increases, if applicable.
- Supplements for diversity and re-entry candidates will be awarded at the full 2012 commitment levels, less any inflationary increases, if applicable.

Competing Applications:

Research Career Development Awards

- Funding priority will be given to individuals in: (1) non-biological sciences such as chemistry, computer science, engineering, math, physics and other quantitative sciences who wish to pursue multi-disciplinary approaches to problems relevant to the strategic plan and (2) physicians who wish to pursue research in these areas.
- Innovation, impact/priority score, timeliness of the project, mentor and research resources, and the program priorities will be major considerations in funding applications that are taken out of priority order.

Research Training (Ts and Fs)

- Priority will be given to institutional training grants that propose to develop scientists who can work as intellectual contributors to interdisciplinary teams developing technologies for genomic.

- Priority for funding of individual fellowships will be given to individuals wishing to address issues relevant to the strategic plan.
- The impact score, timeliness of the project, and the program priorities will be major considerations in funding applications that may be taken out of priority order.
- Institute-negotiated cost reductions for new and competing awards, beyond those recommended by peer review, will be handled on a case-by-case basis.

Conferences and Courses

The National Human Genome Research Institute is committed to disseminating the latest information and technologies through courses and conference grants. However, our investment in this type of research will be limited (in research areas and dollars) and will be targeted to areas that seek to increase the capabilities of US scientists, especially those who are seeking to significantly enhance their skills in research areas relevant to addressing the research issues in the strategic plan.

COMMITMENT TO EARLY STAGE AND NEW INVESTIGATORS

NHGRI is highly supportive of NIH's efforts to encourage the support of new investigators in the early stages of their careers. These policies are described at <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-013.html> and at http://grants.nih.gov/grants/new_investigators/index.htm. To facilitate the implementation of this NIH-wide policy, NHGRI is very flexible in the support of early stage investigators (ESIs) by: (1) funding applications that might have an impact score beyond the range of applications from established investigators; (2) not reducing council-recommended budgets beyond what is required by the NIH fiscal year grants policy; (3) supporting new investigators for four or five years, if requested, unless specific circumstances require otherwise; (4) supporting early stage investigators who are applying for their first competitive renewal; and (5) encouraging postdoctoral fellows to accelerate their independence in academia through the use of the Pathway to Independence Awards. By contrast, most grants to established investigators awarded by NHGRI are for three years in order to give NHGRI the flexibility to fund unanticipated and new ideas in the rapidly evolving field of genomics.

Beyond these policies, NHGRI staff is aware that the early career years and career transitions are fraught with uncertainties, so we make special efforts to work with trainees and young investigators. Our contact with potential new investigators begins with postdoctoral fellows and career development awardees. In the initial phases of the fellowship or career award, NHGRI staff discusses with fellows and awardees the importance of obtaining strong mentorship, learning

from peer relationships and generating quality publications. During the last year of the award, staff counsels fellows and awardees about the various options for furthering their research careers, whether through a career development award or an investigator-initiated grant. In addition, staff is always available to answer their questions about program priorities, how to prepare a meritorious grant application, how the peer review process works, and how to work within the NIH system.

COMMITMENT TO INVESTIGATORS FROM UNDERREPRESENTED GROUPS

NHGRI is highly supportive of investigators from underrepresented groups who apply for support in areas addressed by NHGRI's strategic plan. This support encompasses applications for Ph.D and MD/Ph.D support and applications in response to all of NHGRI's funding opportunity announcements (FOAs) and NIH parent FOAs in which NHGRI participates.

ADHERENCE TO NIH POLICY

Applications Requesting \$500,000 or More in Direct Cost for Any One Year

- NIH requires pre-approval for single applications or for multi-site collaborative studies requesting \$500,000 or more in annual direct costs in any year. Applicants are encouraged to interact with NHGRI staff during the concept development of applications that request \$500,000 or more in direct cost. Applicants planning large grants should request approval from NIH staff at least six weeks in advance of the planned receipt date. The NIH "Revised Policy On The Acceptance For Review of Unsolicited Applications That Request \$500,000 Or More In Direct Costs" (NOT-OD-02-004) may be found at: <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-004.html>.
- The NIH expects and supports the timely release and sharing of final research data from NIH-supported studies for use by other researchers. All investigator-initiated applications with direct costs greater than \$500,000 in any single year will be expected to address data sharing. Applicants are encouraged to discuss their data sharing plan with their program contact at the time they negotiate an agreement with the Institute/Center (IC) staff to accept assignment of their application as described above.