

Funding Landscape Update

April 19, 2010

3:00-5:00

Room 923, Allan Rosenfield Building

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Handouts

- Funding Landscape Report
- NIH-Research Project Grants (RPGs) Success Rates FY 2002-2011 (Addendum to Funding Landscape Report)
- Number of Awards and Success Rates by Institute (FY 2008) Spreadsheet
- Research and training grants: Success rates by mechanism and selected activity codes (FY 1997-2009)
- NIH Paylines & Resources Handout from Medical Writing, Editing & Grantsmanship Blog (<http://writedit.wordpress.com/nih-paylines-resources/>)

2010 Funding Landscape

- Increase of 2% over 2009
- Will fund ~ 9,500 new and competing proposals, plus 26,000 continuing proposals (note: they received 60,000 per year)
- Overall NIH success rate will be **21%**
- Starting in 2010- goal is to fund an equal number of new and established investigators
- Only 2% cost of living increases allowed
- Most grant budgets will be cut by 10%

NIH Priority areas in 2010

- **Cancer Research**
- **Autism Spectrum**
- **Multidisciplinarity**
- **Bioethics**
- **Nanotechnology**

2011 Funding Landscape

- NIH 3.2 % increase overall
 - BUT extramural increase is only .2%
- Few grants funded
 - Overall success rate= **15%**
- Still, half are expected to fund new investigators

U.S. Research

- **Basic and applied science:**
 - 5.6% increase in 2011
- **NSF, DOE, NIST:**
 - All on path to doubling their budgets by 2017

NSF Priorities

- Will focus on climate; energy research and education; networking and information technology research; and environmental sustainability.
- Tripling of new NSF graduate research fellowships—to a total of 3000 fellowships by 2013.

Overview of NIH 2011 Priority Areas

- Applying genomics and other high-throughput technologies
- Translating basic science discoveries into new, better treatments and diagnoses
- Using science to enable health care reform
- Global Health
- “Reinvigorating” and “empowering” the biomedical research community. This is how NIH is defining this:

NIH Definition:

“Reinvigorating and empowering the biomedical research community”:

“One of the consequences of rapid scientific advances is a palpable excitement, within lay and research circles alike, about discovery possibilities that lie in future research. Thus, this point in time presents an excellent opportunity to reinvigorate and empower not only the biomedical research community, but also the general population, from which will emerge the future cadre of science leaders...umbrella initiative known as NIH Blueprint, to offer multidisciplinary **training** opportunities that present avenues for motivating interest in innovative research ...”

NIH Priority Areas for 2011

Genomics:

- **DNA sequencing**
- **Microarray technology**
- **Nanotechnology**

NIH Priority Areas for 2011, continued...

Translational Research:

- **Accelerating discovery → treatment trajectories**
- **Drug development**
- **Rare and neglected diseases**
- **Clinical and Translational Science Awards (CTSA) will increase (to \$500 million for FY 2011)**

NIH Priority Areas for 2011, continued...

Healthcare Reform:

- **Identification of cost-effective treatments**
- **Comparative effectiveness research**
- **Health disparities research**
- **Prevention and personalized medicine**
- **Pharmacogenomics**
- **Health economics research**
- **Social and behavioral research**
- **Fundamental mechanisms and patterns of behavioral and social functioning**
- **New approaches to reduce risky behaviors and improve health**

NIH Priority Areas for 2011, continued...

Global Health:

- **\$300 million in FY 2011 to Global Fund for HIV/AIDS, TB, and Malaria (same amount as for FY 2010)**
- **Emphasis on research on neglected diseases in low-income countries (roundworm, elephantiasis, trachoma, leprosy, etc.)**
- **Partnerships with other sources of support (e.g., Gates Foundation)**

NIH Priority Areas for 2011, continued...

Reinvigorating Biomedical Research Communities:

- **Training the next generation of researchers**
 - **Redoubling minority training efforts**
 - **6.0% increase for Ruth L. Kirschstein National Research Service Award (NRSA)**

NIH Priority Areas for 2011, continued...

Other Research Priorities:

- **Cancer: drug trials**
- **Autism Spectrum: Defining the contributing genetic and environmental factors.**
- **HIV/AIDS: 3.2% increase over 2010**

Strategies to Increase Funding Opportunities

- **Partnerships (Interdisciplinarity)**
 - **Bring your skill sets**
- **Look to unusual agencies**
- **Form/participate in interest groups**
 - **Diabetes, obesity, etc.**
- **Look to organizations for “pilot funds”**

Enhance Grantwriting Skills

- **Sign up for a grantwriting workshop**
- **Join a grantwriting group**
- **Have at least two faculty members review your applications**

Any Questions?



Please contact the Research Resources (R²) Office:

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FY 2010 Funding Landscape

1. FY 2010 NIH Budget increased by about 2.0% (\$443 million) compared to 2009 budget, for a total of \$31 billion (not counting any “left over” ARRA (stimulus) funding. [NIH received \$10.4 billion from the American Recovery and Reinvestment Acts (ARRA) Funds, and these funds are to be spent through FY 2010].
2. This will fund approximately 9,500 new and competing proposals in addition to approximately 26,000 non-competing continuation proposals. The success rate for 2010, across all of NIH will be **21%**.
 - The NIH Research training programs budget will be up 1.0% in 2010 (altogether about 100 new training positions will be funded). The October 2010 CTSA funding (\$80 million) is anticipated to fund 10 new awards, with additional CTSAs funded in the future.
 - The NIH goal, starting in 2010, is to fund an equal number of both new and established investigators (Compared to, for instance, in 2007, when about 5,000 new R01 awards were made to established investigators, and about 1,600 were made to new investigators. In that year, new investigators had a 17% success rate, and established investigators had a 23% success rate).
 - No bridge funding will be available in 2010 (temporarily suspended), except at individual institutions’ discretion.
3. Only a 2% inflation allowance will be permitted in general (down from previous 3% rate). Most budgets for grants that are funded will be reduced by 10%.
4. NIH budget (not counting the ARRA Funds) has been declining since 2004 (factoring in inflation); by 2008, the decline was 2%.
5. Biomedical research accounts for approximately 4.5% of total U.S. health expenditures.

Overview: NIH priority areas for FY 2010

1. Cancer Research (up 5% over 2009)—part of an 8-year strategy to double cancer research by 2017.
2. Autism Spectrum Disorders (up 16% over 2009).
3. Multidisciplinary (Common Fund) collaborative research (up 1.5%).
4. New \$5 million effort in bioethics.
5. \$9 million to NIEHS for initiative on environmental health and safety of nanotechnology.

FY 2011 Biomedical Funding Landscape

1. Intramural NIH research will increase over FY 2010 level (Overall NIH will increase \$1 billion total, a 3.2% increase).
2. But, Extramural NIH funding will be essentially flat over previous year; increase is 0.2%. Will fund a total of an estimated 37,000 research projects (~9000 new and competing). Fewer new proposals will be funded compared to 2010. But still aiming for half of all grants to go to new investigators.
3. The success rate for 2011 across all of NIH is anticipated to be **15%**.
4. National research funding in certain areas will receive expanded funding; these are: basic science research, energy, and climate.
 - Basic and applied science: 5.6% increase.
 - NSF, DOE, NIST—all on path to doubling their budgets by 2017.
5. NSF Priorities:
 - Will focus on climate; energy research and education; networking and information technology research; and environmental sustainability.
 - Tripling of new NSF graduate research fellowships—to a total of 3000 fellowships by 2013.

Overview of NIH 2011 Priority Areas

1. Applying genomics and other high-throughput technologies.
2. Translating basic science discoveries into new, better treatments and diagnoses.
3. Using science to enable health care reform.
4. Global Health.
5. “Reinvigorating” and “empowering” the biomedical research community. This is how NIH is defining this:
 - **“Reinvigorating and empowering the biomedical research community”**:
“One of the consequences of rapid scientific advances is a palpable excitement, within lay and research circles alike, about discovery possibilities that lie in future research. Thus, this point in time presents an excellent opportunity to reinvigorate and empower not only the biomedical research community, but also the general population, from which will emerge the future cadre of science leaders...umbrella initiative known as NIH Blueprint, to offer multidisciplinary **training** opportunities that present avenues for motivating interest in innovative research ...”

NIH Priority Areas for 2011

1. Genomics:
 - DNA sequencing
 - Microarray technology
 - Nanotechnology

2. Translational Research:
 - Accelerating discovery → treatment trajectories
 - Drug development
 - Rare and neglected diseases
 - Clinical and Translational Science Awards (CTSA) will increase (to \$500 million for FY 2011)

3. Healthcare Reform:
 - Identification of cost-effective treatments
 - Comparative effectiveness research
 - Health disparities research
 - Prevention and personalized medicine
 - Pharmacogenomics
 - Health economics research
 - Social and behavioral research
 - Fundamental mechanisms and patterns of behavioral and social functioning
 - New approaches to reduce risky behaviors and improve health

4. Global Health:
 - \$300 million in FY 2011 to Global Fund for HIV/AIDS, TB, and Malaria (Same amount as for FY 2010).
 - Emphasis on research on neglected diseases in low-income countries (roundworm, elephantiasis, trachoma, leprosy, etc.).
 - Partnerships with other sources of support (e.g., Gates Foundation).

5. Reinvigorating Biomedical Research Communities:
 - Training the next generation of researchers
 - Redoubling minority training efforts
 - 6.0% increase for Ruth L. Kirschstein National Research Service Award (NRSA)

6. Other Research Priorities:
 - Cancer: drug trials
 - Autism Spectrum: Defining the contributing genetic and environmental factors.
 - HIV/AIDS: 3.2% increase over 2010

Institute-Specific 2010 Funding Priorities for Selected Agencies (additional information available, including percentage of applications that are anticipated to be funded in 2010—including the ARRA applications. Please contact the Research Resources Office)

1. National Heart, Lung, and Blood Institute (NHLBI) (Success rate for 2010: 20%; estimated success rate for 2011: 14%).
 - Asthma Network- clinical trials
 - Hemoglobinopathies
 - Childhood Obesity:
 - Outcomes Research
 - National Collaborative on Childhood Obesity Research
 - Common metrics
 - Resuscitation outcomes consortium—Clinical trials
 - Prematurity and respiratory outcomes program—Biomarkers
 - Proteomics Institute—Renewal of Proteomics Centers (Individualized treatment and prevention)
2. National Institute of Child Health and Human Development (NICHD) (Success rate for 2010: 16%; estimated success rate for 2011: 12%).
 - Center for Developmental Biology and Prenatal Medicine
 - Center for Research for Mothers and Children
 - Center for Population Research
 - National Center for Medical Rehabilitation Research
 -
3. National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) (Success rate for 2010: 24%; estimated success rate for 2011: 13%)
 - In FY 2010, NIDDK is committed to paylines of grants <\$500,000/year
 - New investigators are urged to use the R01 mechanism rather than the R21.
4. National Institute of Environmental Health Sciences (NIEHS) (Success rate for 2010: 23%; estimated success rate for 2011: 17%)
 - Clinical and Translational Research
 - Bench→ Bedside→ Public Health
 - Toxicity testing and evaluation
 - Basic mechanisms in human biology
 - Exposure biology/ exposure measurement
 - Pathways for future environmental health scientists
5. National Institute of Mental Health (NIMH) (Success rate for 2010: 21%; estimated success rate for 2011: 19%)
 - All grants funded will have their budgets reduced, on average by 10%.
 - Strategic goals:
 - Promoting discovery in brain and behavioral sciences→ causes of mental disorders.

- Determine when, where, how to intervene in mental illness
 - Develop new and better interventions that incorporate the diverse needs and circumstances of people with mental illness
 - Strengthen the public health impact of NIMH-supported research
 - Division of AIDS and Health and Behavior Priorities
 - Develop and disseminate behavioral interventions that prevent HIV/AIDS transmissions
 - Clarify the pathophysiology and alleviate neuropsychiatric consequences of HIV/AIDS transmission
 - Use a public health model to reduce the burden of mental illness from medical comorbidities, non-adherence to treatment, societal stigma, health disparities and unhealthy behaviors.
 - Adult translational research and treatment development (biomarkers)
 - Developmental translational research (interaction between genetics, experience, and development)
 - Neuroscience and basic behavioral science
 - Services and Intervention Research
 - Longitudinal data on prevalence, incidence, severity of mental disorders
 - Army STARRS—Suicide, and mental health in service members
6. National Institute on Drug Abuse (NIDA) (Success rate for 2010: 19%; estimated success rate for 2011: 13%)
- Genomics and high throughput technologies, translational medicine
 - Gene Expression
 - Immunotherapies for treatment (anti-drug vaccines) of addictions (nicotine, cocaine)
 - Early detection of drug abuse
 - Prevention of abuse → addiction early treatment
 - Interventions that reduce health disparities (children, teens, minorities)
 - Prisoners
7. National Institute of Nursing Research (NINR) (Success rate for 2010: 18%; estimated success rate for 2011: 10%)
- \$4 million increase
 - Self-management, symptom management, care giving
 - Health promotion and disease prevention
 - Research capacity development
 - Technology integration
 - End-of-life research

**Percentage of applications (success rates) that are anticipated to be funded in 2011 (high and low),
by agency**

1. Highest success rates:

- NHGRI: 27%
- NIGMS: 24%
- NIDCD: 21%
- NIMH: 19%
- FIC: 18%

2. Lowest success rates:

- NCMHD: 7%
- NCCAM: 8%
- NCRR: 10%
- NINR: 10%
- Roadmap: 11%

3. Acronyms and links:

- NHGRI: National Human Genome Research Institute-- <http://www.genome.gov/>
- NIGMS: National Institute of General Medical Sciences-- <http://www.nigms.nih.gov/>
- NIDCD: National Institute on Deafness and Other Communication Disorders--
<http://www.nidcd.nih.gov/>
- NIMH: National Institute of Mental Health-- <http://www.nimh.nih.gov/index.shtml>
- FIC: John E. Fogarty International Center for Advanced Study in the Health Sciences--
<http://www.fic.nih.gov/>
- NCMHD: National Center on Minority Health and Health Disparities--
<http://ncmhd.nih.gov/>
- NCCAM: National Center for Complementary and Alternative Medicine--
<http://nccam.nih.gov/>
- NCRR: National Center for Research Resources-- <http://www.ncrr.nih.gov/>
- NINR: National Institute of Nursing Research-- <http://www.ninr.nih.gov/>
- Roadmap: NIH Roadmap for Medical Research-- <http://nihroadmap.nih.gov/>

R. Gershon
Research Resources Office
March 12, 2010

References

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National Institutes of Health. NIH Data Book. 2009; <http://report.nih.gov/ndb/index.aspx>. Accessed February 20, 2010.

National Institutes of Health. Summary of the FY 2011 President's Budget. 2010; <http://officeofbudget.od.nih.gov/pdfs/FY11/Summary%20of%20the%20FY%202011%20Presidents%20Budget.pdf>. Accessed February 22, 2010.

National Institutes of Health Office of the Budget. Enacted Appropriations for FY 2008-FY 2010. <http://officeofbudget.od.nih.gov/pdfs/FY11/FY%202010%20Enacted%20Appropriations.pdf>. Accessed February 23, 2010.

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March 12, 2010

Addendum

A. NIH Research Project Grants Success Rates FY 2002-FY 2011

[Medical Writing, Editing & Grantsmanship](#)

NIH Paylines & Resources

Rather than keep adding posts to the blog about NIH paylines, I'll update this page as ICs revise their funding strategies; I've also included links to "[cleared concepts](#)" (i.e., potential funding initiatives approved by the IC's Advisory Council for future development into PAs or RFAs) and to IC [program contacts](#) (program officers). Those ICs that traditionally do not publish payline or percentile guidance are indicated by "no payline data available" (& none probably ever will be). **Last updated:** 16 April 2010

NB: I will update this page as updated paylines reflecting the new scoring system are released. In the meantime, you can find [details on the scoring procedure and interpretation](#) as well as [reviewer guidelines by mechanism](#) at the Enhancing Peer Review [Website](#).

NIH Institutes & Centers

(descending order of budget, percentiles for established/new PIs)

NCI (\$5.1B): FY10 payline at 15th percentile for Type 1/2 R01s, 20th for new investigator R01s; 15th for R21s; impact score up to 30 for R03s; impact score up to 29 for R15s

[NCI cleared concepts](#)

[NCI program contacts](#)

NIAID (\$4.8B): **FY10 updated interim payline for R01 at 10th percentile** and at 16th for new investigators; R03 at impact score 20, R15 at 22, R21 at 30, F31 at 20, F32 at 28, K other than K99 at 26, T32 at 20, R41/42 (STTR) at 30, R43/R44 (SBIR) at 30

[NIAID cleared concepts](#)

[NIAID program contacts](#)

[NIAID Paylines](#) (historic data by year and mechanism)

NHLBI (\$3.1B): FY10 payline for established PI R01/U01 at 16th percentile for A0, 12th percentile for A1 (first amended resubmission), 10th percentile for A2; ESI at 5 percentile points above R01 payline; for R03/R21 at 16th percentile; R15 at impact score 30; P01 at 25; and P01 subproject at 35; K awards at 30; T awards at 20; F31/F32 at 20th percentile, F30 at impact score 25; SBIR at 30; STTR at 15

[Rebalancing FY10 Success Rate](#) (>60% A0 applications funded)

[NHLBI cleared concepts](#) (click on most recent Council minutes, see proposed initiatives)

[NHLBI program contacts](#)

FY10 Policy Changes: "The special payline policy for non-ESI [new investigators] will be phased out in FY 2010. In addition, ESI applications on which all named principal investigators are ESI investigators that are >5 but <=10 percentile points above the regular R01 payline may undergo an expedited review to resolve comments in the summary statement."

NIGMS (\$2.05B): FY10 policy but no payline data available

[NIGMS cleared concepts](#) (click on most recent Council minutes)

[NIGMS program contacts](#)

NIDDK (\$1.98B): FY10 payline of 17th percentile for R01s (Type 1 or 2) from established investigators, 19th percentile from new/ESI investigators (please take note of the NIDDK-specific guidance for planning/developing R21 applications), impact score of 30 for R03s

[NIDDK cleared concepts](#)

[NIDDK program contacts](#)

[NINDS](#) (\$1.6B): FY10 payline at 13th percentile for R01s; up to 16th percentile for A0 R01s; unspecified higher percentiles for new investigator & up to 23rd percentile for High Program Priority applications; estimated 22% success rate for all competing research project grants

[NINDS cleared concepts](#) (click on most recent Council minutes)

[NINDS program contacts](#)

[NIMH](#) (\$1.5B): FY10 payline up to 20th percentile, program discretion (see main link for details on research funding priorities; focus on ESI (versus new) applicants; [training funding priorities here](#))

[NIMH cleared concepts](#)

[NIMH program contacts](#)

[NICHD](#) (\$1.3B): No payline data provided

[NICHD cleared concepts](#)

[NICHD program contacts](#)

[NCRR](#) (\$1.27B): FY10 funding policy but no paylines

[NCRR cleared concepts](#) (click on presentations or minutes of most recent meeting)

[NCRR program contacts](#)

[NIA](#) (\$1.1B): FY10 payline for R01s at 8th percentile for established investigators, 13th for new investigators (may go above 13th percentile for ESI)

[NIA program contacts and priorities](#) (click through most relevant branch)

[NIDA](#) (\$1.06B): FY10 policy but no paylines

[NIDA program contacts](#) (click on relevant Division)

[FY10 Budget Request](#)

[NIEHS](#) (\$690M): no payline data available

[NIEHS cleared concepts](#) (click on latest Council minutes)

[NIEHS program contacts](#) (click on relevant area in org chart)

[NEI](#) (\$707M): no payline data available, though they will “be cautious in making competitive awards” ([policy info here](#))

[NEI cleared concepts](#) (click on latest Council minutes)

[NEI program contacts](#)

[NIAMS](#) (\$539M): FY10 paylines at 14th percentile for R01s, 19th percentile for new investigators, 14th percentile for R21s, 28 for R03s, 25 for R15s, 25 for K01/K02/K08/K25s, 25 for K23/K24s, 14 for K99s, 27 for F31/F32/F33s

[NIAMS cleared concepts](#) (click on latest Council minutes)

[NIAMS program contacts](#) (click on relevant scientific area)

[FY10 Budget Request](#)

[NHGRI](#) (\$516M): FY10 policy but no paylines

[NHGRI cleared concepts](#) (click on most recent meeting agenda & documents)

[NHGRI program contacts](#) (click on relevant program)

[NIAAA](#) (\$462M): FY10 policy but no paylines

[NIAAA cleared concepts](#) (click on most recent Council minutes)

[NIDCD](#) (\$419M): FY10 policy – payline at the 22nd percentile for R01s per [Council minutes](#)

[NIDCD cleared concepts](#)
[NIDCD program contacts](#)

[NIDCR](#) (\$413M): FY10 policy but no paylines

[NIDCR cleared concepts](#)
[NIDCR program contacts](#)

[NLM](#) (\$359): FY10: For experienced investigators, applications with scores 30 or better are the most likely to be funded. ESI & NI seeking their first R01 research grant and K99 applicants with scores of 45 or better will be considered for funding.

[NLM cleared concepts](#)
[NLM program contacts](#)

[NIBIB](#) (\$316M): FY10 payline at 13th/18th percentile for established/new investigator R01s (limited to 4 years except for BRP, 10% administrative cut except BRP); 13th percentile for R21s; impact score at 23 for R03s & R15s; up to 5 K99/R00 awards to be made; estimated impact score of 25 for SBIRs; highly competitive paylines for Fs & Ks; anticipate 3-4 Type 1/Type 2 BRP & P01 awards, 1-2 Type 1/Type 2 P41 awards

[NIBIB cleared concepts](#) (click on most recent minutes)
[NIBIB program contacts](#)

[NCMHD](#) (\$212M): no payline data available (traditionally no funding policy is posted for this Center)

[NINR](#) (\$146M): “Council and program staff may selectively recommend the payment of grants out of priority score order based on Institute mission and priorities and to maintain a diverse and balanced portfolio” (estimated success rate of 18%, but no payline/priority score guidance provided)

[NINR program contacts](#)

[NCCAM](#) (\$129M): FY10 payline at impact score of 29 or better *and* fall within 20th percentile for established PI R01s; impact score of 35 or better and fall within 25th percentile for new/ESI applicant R01s; impact score of 24 or better for R21s

[NCCAM cleared concepts](#)

[FIC](#) (\$73M): no payline data available (FY10 success rate est at 10-15%)

Other Resources

- [NIH Advisory Council Meeting Dates](#) (all ICs)
- [NIH Funding Strategies](#)
- [Funding Priorities by IC](#) (links from Biennial Report of the Director)
- [NIH Paylines & Percentiles explained](#)
- [NIH Success Rates](#)
- [NIH Award Data](#)
- [NIH Budget Allocation by Disease/Disorder](#)

- [NIH FY09 Fiscal Policy](#)
- [NIH Notice on New Forms/Instructions for Submissions on/after Jan 25, 2010](#)

[Einstein School of Medicine](#) (excellent resource)

50 Comments »