

NICHD Funding and Training Opportunities

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Topics To Be Covered

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- Overview of Grant Mechanisms
 - Research Grants
 - Training
 - Fellowships
 - Career Development
- Supplements to existing grants
- NIH Extramural Loan Repayment Programs
- Other items of interest

NIH Grant Nomenclature

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- Research Grants (“R” “P”)
- Training (“F” “T”)
 - F = Individual fellowship
 - T Institutional training grants
- Career development (“K”)

Research Grants: Mechanisms*

- Research Project Grant (R01)
- NIH Small Grant (R03)
- Conference Grant (R13)
- Academic Research Enhancement Award (R15)
- Exploratory/Developmental Projects (R21)
- NIH Clinical Trial Planning Grant (R34)
- Program Project Grant (P01)

*Complete listing at <http://www.nichd.nih.gov/funding/funding-mechs.htm>

R01: Research Project Grant

Apply electronically using Grants.gov using the SF424 forms

- Objective: facilitate pursuit of scientific focus in area of investigator's interest/competence
- Eligibility: investigator from domestic or foreign institution/organization
- Support: Up to 5 years (renewable)
- When to apply:
New: February, June, October
revised applications/competing continuations (renewals)
March, July, November

<http://grants2.nih.gov/grants/funding/submissionschedule.htm>

R03: NIH Small grant

- Objective: To provide limited funds for new research projects relevant to the NICHD mission and priority areas
- Eligibility: Investigator from a domestic or foreign institution/organization
No concurrent grant application on same topic

R03: NIH Small Grant

- Features: Up to \$50,000 per year direct costs (DC)
2 year limit (not renewable)
One revision allowed

Apply electronically using Grants.gov using the SF424 forms

- When to apply: New applications: February, June, October
Revised applications: March, July, November

R03: Small Grant: Types of Projects

- Pilot or Feasibility Studies
- Limited Research Studies
- High Risk/High Payoff Studies
- Reanalysis of Existing Data
- Starter” grant- support to generate sufficient data for R01 submission
- No preliminary data is required but is highly advised to support hypothesis or show feasibility of methodology

R21: Exploratory/Developmental Research Grant

- Objective: support for early & conceptual stages of projects that break new ground or direction
- Eligibility: investigator from domestic or foreign institution/organization
- Support: ≤ \$275 K in DC for a 2 year period (not renewable)
- Although no preliminary data is required, it is highly advised !

R21 Exploratory/Developmental Types of Projects

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- Novel Research Studies
 - new scientific paradigms
 - model systems
 - tools
 - agents
 - targets
 - technologies
- Usually high risk but high payoff
- Projects that increase knowledge in a well-established area will not be considered. (Better suited for R01)

Apply electronically using
Grants.gov using the SF424 forms

Review-Institute-Specific

NIH's CSR
Center for Scientific Review

NICHD's DSR
(Institute specific)
Division of Scientific Review

- RO1 if multisite clinical trial

Review

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- Criteria (Standard NIH criteria)
 - Significance-Does it address an important problem?
 - Approach Is the study well designed?
 - Innovation Does it involve novel concepts, approaches, methods or challenges existing paradigms
 - Investigator-Does the P.I. have the appropriate training or experience?
 - Environment Are the institutional resources adequate?

**Specific criteria for career and training awards, response to RFA, etc*

Training & Career Development



Training & Career Development Fellowship Grants

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- Postdoctoral Fellowship Award (F32): individual programs for basic or clinical postdoctoral training
- Institutional Training Grant (T32): support to institutions for basic or clinical pre & postdoctoral training programs

F & T (F31/F32/T32) Common Features

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- U.S. citizen, noncitizen national or permanent resident
- Full-time commitment (40 hrs/week)
- Support for living expenses, tuition, fees, and limited travel & supplies
- Institution allowed to provide additional support, but can not interfere, detract from or prolong the fellowship
- No similar concurrent federally-funded awards

National Research Service Award: F32

- **Objective:**
 - Provide training to broaden scientific background
 - Extend potential of individuals doing biomedical/ biobehavioral research
- **Eligibility:**
 - Doctoral degree (MD, DO, PhD, DDS, etc),
 - Experienced sponsor with research support to supervise research
- **Due dates:** April, August, December
(with start dates ~ 9 months later)

F32: Features

- Up to 3 years support
- If fellowship less than 2 yrs there is a service payback requirement
- Service payback
 - Service obligation of 1 month for each month of support for the first 12 months
 - Service obligation: engage in health-related research training, research, and/or teaching
 - Two years of fellowship satisfies the service obligation

F32: Support

- Living Expenses: stipend based on years of postdoctoral experience (~37-52K/yr, FY2010)
<http://grants.nih.gov/grants/guide/notice-files/NOT OD 10 047.html>
- Tuition, Fees: 60% up to \$4,500;
- Training related expenses: \$7,850 (includes health insurance)

F Awards: Review

- CSR Review Committees
- Criteria
 - Candidate academic record & future potential
 - Training Environment quality of research training experience
 - Mentor-qualifications & mentoring track record
 - Research plan merit & relation to career plans
 - Training Potential assessment of the fellowship as it relates to a career as an independent researcher

National Research Service Award: T32

- Objective: Promote institutions to develop or enhance research training opportunities at the predoctoral, post- doctoral or health professional levels
- Eligibility:
 - Predoctoral or postdoctoral level (basic or clinical)
- Support:
 - ≤ 3yrs postdoc
- Postdoctoral trainee subject to payback provisions if < 2y
- **Trainees apply directly to the program site not NIH**

COMMON CAREER AWARDS (K)



Common Career Development Mechanisms

- Based on stage of career development
 - Mentored research training
 - K08, K12, K23 (clinicians with exceptions)
 - Protect time of newly independent scientist
 - K02 (clinicians or non-clinicians)
 - Protect time of midcareer investigator and mentor young investigators
 - K24 (clinicians only)

K Awards: Application

- SF 424
- Career award section
- Receipt dates:
 - February, June, October
 - (revised due March, July, November)

Mentored "K" Awards Career development to independence

- Mentored Clinical Scientist Development Award (K08): mentored basic or clinical research project
- Mentored Patient Oriented Research Career Development Award (K23): mentored patient-orientated research project
- Mentored Clinical Scientist Development Program (K12): institutional programs for mentored training and research for pediatrics & Ob/Gyn clinicians
- Pathway to Independence Award (K99/R00)

K08: Mentored Clinical Scientist Development Award

- Support for clinicians committed to a career in **health-related research** (laboratory or field based) with potential to become productive, independent investigators

K23: Mentored Patient Oriented Research Career Development Award

- Support for clinicians committed to a career in **patient-oriented research** with potential to become productive, independent investigators

K Awards (K08/K23) Common Features

- Eligibility
 - **Clinical** doctoral degree (e.g., medicine, dentistry, nursing, psychology, etc)
 - Applications may be accepted from those who hold the Ph.D. degree in addition to the professional degree only if special circumstances can be shown, such as a Ph.D. degree earned in a field unrelated to biomedical science or a substantial intervening period of clinical or nonresearch activities since completion of the Ph.D. degree. Such applications will be considered on a case-by case basis.
- US Citizen, non-citizen national, permanent resident
- No concurrent or pending NIH career development award
- Previous NIH PIs on RO1, R29, P01, K Award grants are ineligible, but previous R03 PIs are eligible

K Awards (K08/K23) Common Features

- Requires Mentor
- Duration: 3-5 yrs
- Full time employment
- Level of research effort: 75%
- Support: \$75K to \$180,100 (salary Institute dependent) + \$25K (supplies, tuition, etc.)
- Non-renewable
- Recipient encouraged to apply for independent research grant support during the award period (e.g., R03, R01)

K Awards (K08/K23): Review

- NICHHD Review Committees
- Criteria
 - Candidate-academic record & future potential
 - Career development plan- appropriateness for the achievement to scientific independence
 - Research plan merit & appropriateness to career plans
 - Mentor qualifications & mentoring track record
 - Environment appropriateness & quality
 - Institutional commitment assurance of 75% protected time, career development, facilities to support candidate

K12: Mentored Clinical Scientist Development Programs

- **Objective:** support institutional programs for research training and career development for clinicians in pediatrics & obstetrics & gynecology committed to careers in academic medicine
- **Programs:**
 - Pediatric Scientist Development Program (PSDP)
 - Reproductive Scientist Developmental Program (RSDP)
 - Women's reproductive health research career development centers(WRHR)
 - Child health research career development centers (CHRCDC)
 - Building Interdisciplinary Research in Women's Health (BIRCWH)
- *Trainees apply directly to the program site, not NIH*

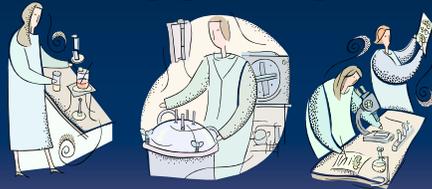
K99/R00 Pathway to Independence Award

- PA-10-063
http://grants.nih.gov/grants/guide/pa-files/PA_10_063.html
- Up to 5 years of support
- Two phases
 - 1-2 years of mentored support
 - Up to 3 years of independent support contingent on an independent research position
- Non citizens are eligible
- Q&A:
http://grants.nih.gov/grants/new_investigators/QsandAs.htm

Pathway to Independence Award (K99/R00)

- Transition Award: Provides support for 1-2 years of mentored research (\$90K TC/Yr) followed by three years of independent research (\$249K TC/Yr)
- U.S. citizens as well as non-U.S. citizens are eligible
- The applicant will have no more than 5 years of postdoctoral research experience and no previous major NIH independent research support (e.g., R01, but R03 or R21 is acceptable) or non-NIH grant support >\$100,000 (DC)/Yr
- Applicants should be in the final years of their mentored research experience and poised to embark on an independent research career in a tenure-track or equivalent position
- More details: http://grants.nih.gov/grants/new_investigators/

SUPPLEMENT PROGRAMS



Diversity in health related research PA-08-190

Administrative supplements to an ongoing grant

- Application submitted by PI of R01, R10, R18, R22, R24, R35, R37, R43, R44, R41, R42, P01, P20, P50, P51, P60, U01, U10, U19, U41, U42, U54, S06
- Submit to awarding component of parent grant
- Improve diversity of workforce
- UNDERREPRESENTED students, post docs, eligible investigators

Underrepresented racial and ethnic groups
<http://www.nsf.gov/statistics/showpub.cfm?TopID=2&SubID=27>
 Disabilities
 Socially, culturally, economically or educationally disadvantaged backgrounds that have inhibited ability to pursue career

Diversity in health related research

PA-08-190

- Submission dates – any time
- Parent grant must have 2 or more years of support remaining
- Funding guidelines refer to PA
- Timeline
 - Approximately 10 weeks following submission, applicants receive intent to award
 - Work with program staff with respect to award process

Diversity in health related research

PA-08-190

- Review Criteria Administrative review by the Institute
 - Qualifications of candidate
 - Educational achievement and interest in science
 - Promotion of diversity within institution or at national level
 - Plan for proposed research and career development (relation to parent grant)
 - Research experience and mentorship

NIH Extramural Loan Repayment



<http://www.lrp.nih.gov>

Purpose: To recruit and retain highly qualified health professionals as investigators with a commitment to a research career

Loan Repayment Programs (LRP)



- **Pediatric Research** Loan Repayment Program
- **Contraception and Infertility Research** Loan Repayment
- **Clinical Research** Loan Repayment Program

Loan Repayment Programs (LRP)

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- **Pediatric Research** Loan Repayment Program
doctoral degree
any pediatric related research
- **Contraception and Infertility Research** Loan Repayment
predoctoral students, doctoral degree, nurses, PAs
any contraception or infertility related research
research must be performed at qualified domestic nonprofit institution
- **Clinical Research** Loan Repayment Program
doctoral degree
patient oriented research (direct patient contact)

Loan Repayment Programs - Eligibility

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- Doctoral level degree
MD, PhD, PsyD, PharmD, DO,
DDS, DMD, DPM, DChir, DVM
- Government research funding or non-profit research funding
- Student loan debt equal to at least 20% of annual salary
- US citizenship or permanent residency
- Non-federal government job

CIR: does not require doctoral level degree

Loan Repayment Programs Research Funding

- Non-profit or US government entity
- NIH grant is acceptable but **NOT required**
- Salary support and/or research funding from your

week) for two years to the research.

- Research must not be prohibited by Federal law or NIH policy

Loan Repayment Programs Educational Debt

- Qualifying types of student loans
HEAL, HPSL, Nursing Student loan program
Dept. Education (Stafford, Perkins)
State, academic entities, private lenders
- At least 20% "institutional base salary"
- "Institutional base salary" paid by institution where research is conducted

Loan Repayment Programs Repayment

- Total per year is \$35,000
- NIH will offset Federal tax liability in addition to \$35,000
- This could be an additional \$11,550 (for 33% tax bracket) or \$9,800 (for 28% tax bracket)
- Total could be as much as \$46,550 per year!!!

Loan Repayment Programs

- GREAT program for those that want to pursue research career
- Designed for those who wish to pursue careers in biomedical, behavioral, social, and clinical research
- NOT intended to subsidize loan repayment for those pursuing private clinical practice

Other Items of Potential Interest



Registration for Electronic Submissions

- Project Director / Principal Investigator (PD/PI)
- Authorized Organizational Representative (AOR) / Signing Official (SO)

**eRA
Commons**

Grants.gov

Registration for Electronic Submissions

Registration takes *at least* 2 – 4 weeks

I'd give it up to 8 weeks!



www.nichd.nih.gov



NIH Guide for Grants and Contracts



<http://grants.nih.gov/grants/guide/index.html>

NIH Guide Terminology

- **Request for Applications (RFA)**

Identifies a more narrowly defined area for which one or more NIH institutes have set aside funds for awarding grants

Usually has a single receipt (received on or before) date specified in the RFA announcement

Usually reviewed by a Scientific Review Group convened by the issuing awarding component (e.g., NICHD)

NIH Guide Terminology

- **Request for Proposals (RFP)**

Solicits contract proposals. An RFP usually has one receipt date, as specified in RFP solicitation

- **Notice (NOT)**

Announces policy and procedures, changes to RFA or PA announcements, RFPs and other general information items

Review Criteria—Recent Changes, submissions after January 25, 2009

Enhancing Peer Review: The NIH Announces E Applications Received for Potential FY2010 Fu

Notice Number: 107-00-09-025

Key Dates

Release Date: 04/06/09

Each core criterion will receive a score from 1 (exceptional) to 9 (poor)

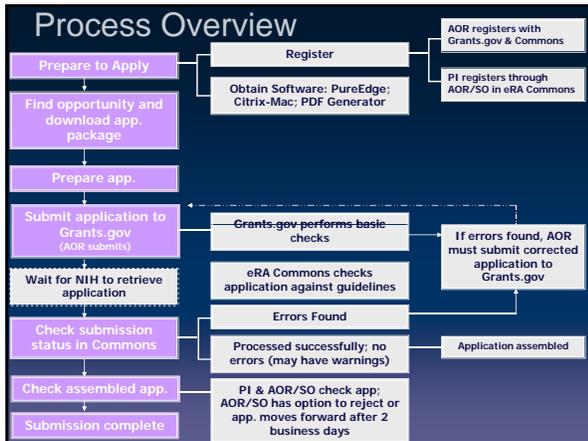
- Overall Impact

- Core criteria

- Significance
- Investigator
- Innovation
- Approach
- Environment

Resubmission

- Limited to one
- Previously applicants were allowed two resubmissions



Foreign Scientists Temporarily in the U.S.

- Foreign nationals temporarily in the U.S. on a visa can apply for NIH research support (e.g., R01, R03, K99/R00, P01, etc.) if they have a formal written appointment (no salary necessary) with a U.S. institution.
- Can not apply for training (F, T) or many career awards (K)
- Visa can not be extended because of the grant award

Time Line: Application to Award

- Receipt Dates:
New (K, R, P, P revision)- 2/1, 6/1, 10/1
Revisions (K, R)- 3/1, 7/1, 11/1
NRSA (F31-5/1, 11/1; F32- 4/1, 8/1, 12/1; T32- 5/10)
SBIR/STTR (R43, R44/R41, R42) 4/1, 8/1, 12/1
- Review: 5-6 months later
- Council: 3-4 months
- Award: 1-2 months
- Total time until award: 9-10 months

**Subject to change: see detailed application requirements on the NIH website, in the Guide, in the PHS 398 instructions, etc.*

Topics Covered

- Overview of Grant Mechanisms
 - Research Grants
 - Fellowships
 - Training
 - Career Development
- Supplements to existing grants
- School Loan Repayment Programs
- Additional information

Information

- NICHD WEB SITE: <http://www.nichd.nih.gov>
- Pregnancy & Perinatology Branch Web Site: <http://www.nichd.nih.gov/cdbpm/pp/pp.htm>
- NICHD WEBSITE: "Funding by NICHD"
<http://www.nichd.nih.gov/funding/funding-mechs.htm>
- NIH WEBSITE "Welcome to Extramural Research at the NIH"
<http://grants.nih.gov/grants/welcome.htm>
- NIH CAREER AWARD WEBSITE "Kiosk"
<http://grants.nih.gov/training/careerdevelopmentawards.htm>
- NIH Peer Review Revealed: CSR videos for an inside look at how scientists from across the country review NIH grant applications for scientific and technical merit.
<http://cms.csr.nih.gov/ResourcesforApplicants/InsidetheNIHGrantReviewProcessVideo.htm>

**Pregnancy and
Perinatology Branch**

Stephanie Archer
Mammah Borbor
Rosemary Higgins MD
John Ilekis PhD
Nichole Johnson
Susan Pagliaro
Tonse Raju, MD
Uma Reddy MD MPH
Christine Rogers
Caroline Signore MD MPH
Cathy Spong MD
Marian Willinger PhD

<http://www.nichd.nih.gov/cbpm/pp/pp.htm>