

NLM Leadership Team 2022



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Accelerating Discovery and Data-Powered Health



Accelerate discovery and advance health through data-driven research



Reach more people in more ways through enhanced dissemination and engagement



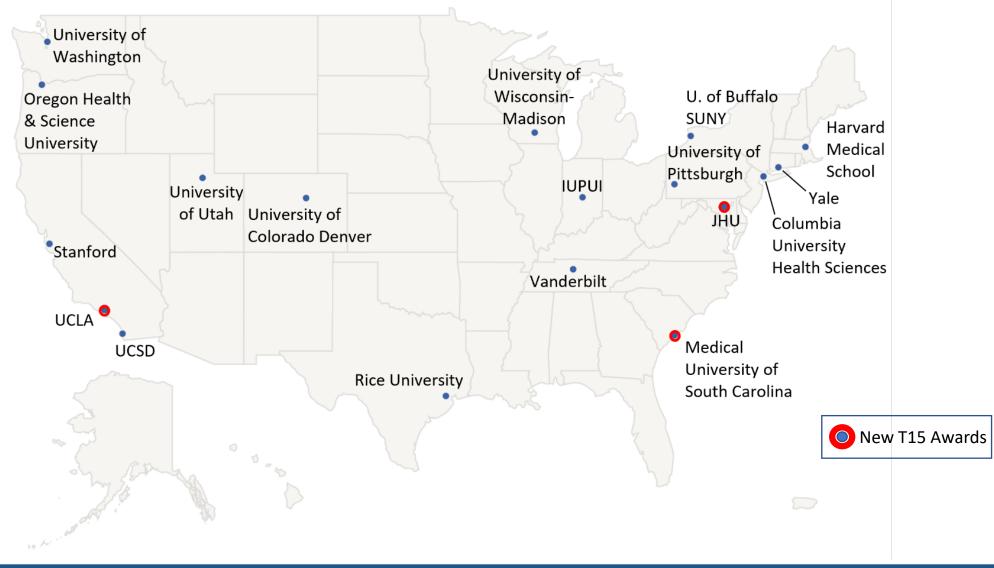
Build a workforce for data-driven research and health

NLM Institutional Grants for Research Training in Biomedical Informatics and Data Science Awards Purpose of RFA-LM-21-001*

- Support predoctoral and postdoctoral training for research careers in biomedical informatics and data science
- Address a growing need for a well-trained research workforce
- Prepare graduates for research-oriented roles in academic institutions,
 governmental and public health agencies, and health care organizations

*Request for applications (RFA), Library of Medicine (LM)

T15 Award Map



What's new and emerging?

- Fully automated indexing for the full set of MEDLINE journals
 - Reduced time to index (from many months to a few days) and eliminated backlog
 - Human domain expertise still a component of MEDLINE
- SRA available via Amazon Web Services Open Data Platform
 - Over 60M user interactions to ~20M sequence records
 - SARS-CoV-2 mutation and variant analysis results
- Data Management and Sharing Policy
 - Required section in all proposals submitted after Jan 23, 2023
- OSTP Memo
 - Update their public access policies as soon as possible, and no later than December 31st, 2025, to make publications and their supporting data resulting from federally funded research publicly accessible without an embargo on their free and public release;
 - Establish transparent procedures that ensure scientific and research integrity is maintained in public access policies; and,
 - Coordinate with OSTP to ensure equitable delivery of federally funded research results and data.



Advanced Research Projects Agency for Health (ARPA-H)

ARPA-H will be complementary to, not duplicative of, NIH programs and efforts

Mission

To benefit the health of all Americans by catalyzing health breakthroughs that cannot readily be accomplished through traditional research or commercial activity

Goals

Support transformative high-risk, high-reward research to:

- Speed application and implementation of health breakthroughs to serve all patients
- Foster breakthroughs across various levels from the molecular to the societal
- Build capabilities and platforms to revolutionize prevention, treatment, and cures in a range of diseases
- Convert use-driven ideas into tangible solutions for patients far more rapidly than previously thought possible
- Overcome market failures through critical solutions or incentives

Approach









NIH UNITE Initiative to Eliminate Structural Racism

U – Understand

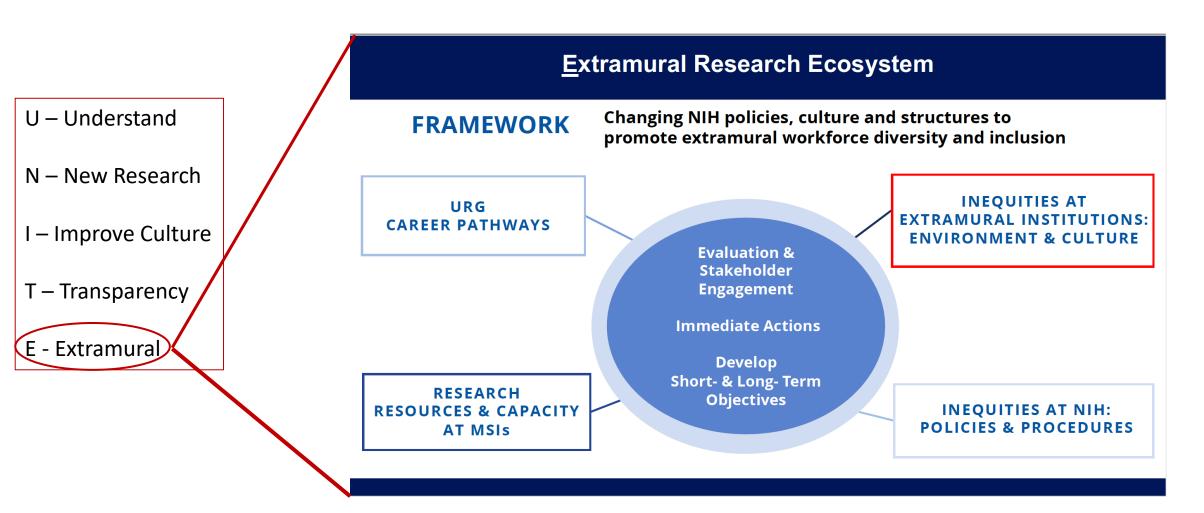
N – New Research

I – Improve Culture

T – Transparency

E - Extramural

NIH UNITE Initiative to Eliminate Structural Racism



NLM Appropriations Update

	NLM	NIH
FY 2022 President's Budget	\$ 474,864,000	\$ 51.9 Billion
FY 2022	\$ 479,439,000	\$ 46.1 Billion
FY 2023 President's Budget	\$ 471,998,000	\$ 62.5 Billion
FY 2023 House Proposed	\$ 494,572,000	
FY 2023 Senate Proposed	\$ 494,302,000	



Join us if you can: September 1, 2022 9-4 EDT

Lindberg-King
Lecture and Symposium

Day-long event – Science, Society and the Legacy of Donald A.B. Lindberg, MD to honor of Dr. Lindberg who passed away in August 2019.

Isaac Kohane, MD, PhD, Harvard University

Who will be the primary purveyor of authoritative medical knowledge to the U.S. patient?

https://videocast.nih.gov/watch=45597

Reaching NLM







NLM T15 Kickoff

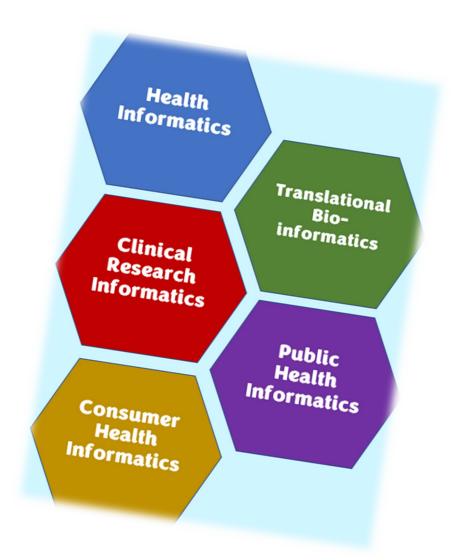
Lyn Hardy, PhD, RN
Program Officer
NLM Division of Extramural Programs



Goals

Programmatic look at:

- Expectation, Metrics, & Measures
- T15 End Products Program Evaluation
- Tying Data to xTrain
- Training Guidelines
- What's next for trainees



Expectations, Metrics & Measures



Publications

Tables 5A and 5B.



Institutional Support

Tables 1 and 2



Applicants

Tables 6A and 6B



Grant Support & Funding

Tables 3 and 7



Program Outcomes

Tables 8A, B, & C



Using Metrics to Guide Program Evaluation

Ensuring the effectiveness and efficiency of biomedical education

Inputs

- Data tables
- Data origin
- Potential additional methods

Assumptions

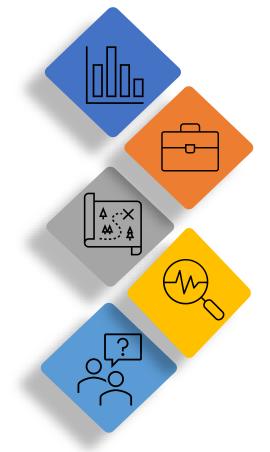
- Trainees advance to positions supporting biomedical informatics
- Training provides education and partnerships

Context

- Mapping Table 8 data to Outcomes
- Associating xTrain data for validation

Activities

Method(s) facilitating data capture through the RPPR



Outcomes

The ability to use data to provide a comprehensive look at:

- Trainee type
- Student status (e.g., graduated, completed the course)
- Exit status (where did the trainee go)

RPPR Data

- Table 8 provides unstructured trainee information (metrics) required for Program Evaluation (PE)
- NLM will use data included within Table 8A and 8C for site evaluation
- RPPR data will be imported into Excel files to allow for comparisons within and across sites

Training Policy

FY22 Budget Period

Here is where we are....

- Maximum of 5 years NLM funding for pre/postdocs combined
- Maximum of 3 years postdoc support
- Following NIH rules for trainees w/ previous NIH training grant/fellowship support -> NIH max of 5 years predoc + 3 years postdoc

FY23 Budget Period

Here is where we are going....

- Predoc: 4 years max T15 funding + postdoc 2 years max T15 funding
- 1 year can be added to pre (5th year) and postdoc (3rd year) with strong justification and EP Director prior approval
- Trainees with previous NIH training grant/fellowship support -> NIH rules of max of 5 years predoc + 3 years postdoc

Research Career Trajectory

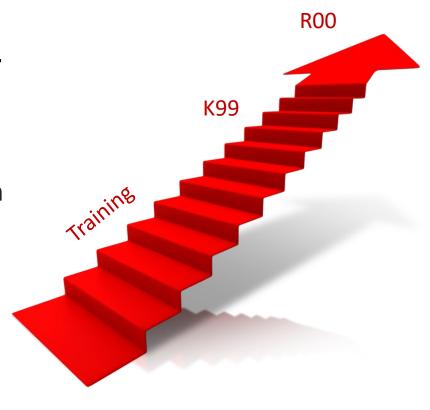
Approx. Stage of Research

Awards Training/Career Pre-Bac Pre-Bac Institutional Training Grant (T34) GRADUATE/ Predoctoral Institutional Training Grant (T32) MEDICAL ← Predoctoral Individual NRSA (F31) STUDENT Predoctoral Individual MD/PhD NRSA (F30) ← Postdoctoral Institutional Training Grant (T32) POST Postdoctoral Individual NRSA (F32) **DOCTORAL** NIH Pathway to Independence (PI) Award (K99/R00)
Mentored Research Scientist Development Award (K01)
Mentored Clinical Scientist Development Award (K08)
Mentored Patient-Oriented RCDA (K23) **EARLY** Mentored Quantitative RCDA (K25) Small Grant (R03) Research Project Independent Scientist Award (K02) MIDDLE Grant (R01) Midcareer Investigator Award in Exploratory/Development Patient-Oriented Research (K24) Grant (R21) SENIOR Senior Scientist Award (K05)



Finishing the T15 Next a pathway to independence

- K99/R00 Pathway to Independence the keys!
 - Transition assistance for biomedical informaticians to progress from mentored research to independent research
 - Assists awardees launch competitive, independent research careers
 - Applicant cannot lead independent clinical research; can propose research experience in mentor's research
 - Requires a tenure-track or equivalent faculty position
 - *Note*: an awarded K99/R00 application must maintain the trainee advancement as noted in the funded application



Updates

- Notice of Special Interest (NOSI): Administrative Supplements to Recognize Excellence in Diversity, Equity, Inclusion, and Accessibility (DEIA) Mentorship
- NLM R25 (undergraduate & Master's level education)

Program's Goal



Metrics

Presence of evaluative data to ensure the program meets trainee and NIH expectations





Data

Transform RPPR Table data from unstructured to structured data for evaluations



Provide

Guidance to investigators and trainees related to program information and post graduation research potential

2023 NLM T15 Annual Meeting

- Hosted by Stanford BMI and Department of Biomedical Data Science
- Dates: June 21 (Wed) June 23 (Friday), 2023
- Location: Li Ka Shing Conference Center
- Expected Attendance: 250
- Registration: Targeted \$175 per person
- Housing/Hotel Options:
 - Stanford Housing Options: Dorms \$150/person/day; Studios/Apartments \$230-\$250/person/day.
 - Hilton Garden Inn (4-5 miles from campus), 70 room block, no shuttle service



Stanford University



Li Ka Shing Conference Center

Stanford Team



Sylvia Plevritis Chair, Biomedical Data Science Program Director, BMI



Karen Matthy
Executive Director,
Biomedical Informatics



Michael Negrette
Director of Finance and
Administration



Pornprang Plangsrisakul Program Manager

NLM T15 Annual Meeting Committees 2023

- <u>Senior Leadership Committee</u>
 - High level Direction
 - Judges for awards and award criteria
 - 5-6 T15 Directors
 - Time commitment: 2 hours/month October and November 2022; 3 hours/month Jan-April 2023

Scientific Planning Committee

- Agenda
- Keynote
- Professional Development
- Student presentation formats, nominations
- 6-8 T15 Directors, Faculty, NLM representative, students
- Note: Separate sub-committee for social events, with students and Stanford planning team
- Time commitment: 3 hours/month October and November 2022; 4 hours/month Jan -April 2023

NLM T15 Kickoff Meeting FY22 Grants Management highlights

Samantha Tempchin, MLS
Chief Grants Management Officer
NLM Division of Extramural Programs
August 31, 2022

Agenda

- Cost policies
- Appointment policies
- Prior approval requirements
- Reporting requirements

Cost policies

Cost policies: Stipends

- Stipends are a subsistence allowance to help defray living expenses.
- Not a salary; trainees are not considered employees of either Government or Institution.
- Must be paid in accordance with the established levels
- Stipend adjustments may only occur at the time of appointment/reappointment.
- Recipient may supplement stipends using <u>non-federal</u> funds:
 - Without any additional effort or obligation for the trainee
 - Must be consistently applied to all individuals in a similar training status, regardless of source of funds per a formally established policy within your institution
 - Cannot pay above standard stipend level using grant funds.

Policy ref: NIH GPS <u>11.3.8</u> and <u>11.3.10</u>

Cost policies: additional compensation

- Actual employment for services rendered salary, not stipend supplementation.
- Trainees may seek part-time employment coincidental to their training program to further offset their expenses.
- Maximum of on average, an additional 25% of their time (e.g., 10 hours per week) in part-time employment
- May not be paid from a research grant that supports the same research as trainee's planned training experience.
- May not interfere with, detract from, or prolong the T15 training.

Cost policies: TRE & travel

- Training-related expenses (TRE)
 - Awarded as a lump sum per trainee.
 - Can be used to cover expenses related directly to the training program, such as staff salaries, research supplies, trainee health insurance, etc.
- Trainee travel
 - Intended to support attendance at scientific meetings, including the T15 annual meeting.
 - Trainees must be appointed to the T15 at the time of the actual travel for this to be an allowable cost.
 - Generally not allowable to use for daily commuting costs.

Cost policies: Tuition

- Full needs for tuition & fees requested in application
- NIH formula applied at time of award
 - Predoc: 60% of actual, up to \$16k (single degree) or \$21k (dual degree)
 - Postdoc: 60% of actual, up to \$4500 (non-degree seeking) or \$16k (degree seeking)
- Lump sum that can be allocated based on recipient needs
- Tuition and fees are an allowable trainee cost only if such charges are applied consistently to all individuals in a similar training status at the organization, without regard to their source of support
- Will not be adjusted for inflationary increases in future years

Cost policies: Rebudgeting

- <u>Limited</u> rebudgeting between cost categories may be allowable
 - Refer to the NIH GPS 11.3.9 for details (link below)
- Stipends and tuition/fees: may not rebudget OUT of these categories. May rebudget INTO or WITHIN these two categories.
- TRE: may be rebudgeted to another category.
- Travel: may be rebudgeted to another category.

Cost policies: Rebudgeting

To

	Stipends	Tuition/Fees	TRE	Travel
Stipends	-	Yes	NO	NO
Tuition/Fees	Yes	-	NO	NO
TRE	Yes	Yes	-	Yes
Travel	Yes	Yes	Yes	-

Policy ref: NIH GPS <u>11.3.9</u>

Appointment policies

Appointment policies: period of support

- Trainees are expected to be full-time for a continuous 12-month period
- Appointments may not be shorter than 9 months without NLM prior approval
- Can begin any time during budget period
- Maximum support period:
 - CURRENT: 5 years total T15 support, which can be divided between predoc and postdoc (w/ maximum 3 years postdoc)
 - NEW starting in FY2023: Up to 4 years predoc and 2 years postdoc T15 support
 - Trainees who have previously received support from another NIH training mechanism (such as a T32 or F31) may be appointed up to the NIH maximum limits (5 years predoc and 3 years postdoc)
 - Waivers to support limits will be considered only with exceptional justification

Appointment policies: overlapping budget years

An appointment period may overlap budget periods.

Year 6 – FY2022	Year 7 – FY2023
7/1/2022 – 6/30/2023	7/1/2023 – 6/30/2024

Trainee's Yr 6 Appointment Period 1/1/2023 – 12/31/2023

Stipend & Tuition \$\$ (6-months reported as unliquidated obligation on Year 6 FFR)

Policy ref: NIH GPS <u>11.3.7</u> and <u>11.3.13</u>

Appointment policies: trainee leave

- Vacations and holidays: in general, trainees may receive stipends during normal periods of vacation and holidays observed by individuals in comparable training positions
- Sick leave: may receive stipend for up to 15 calendar days per year
- Parental leave: may receive stipend for up to 60 calendar days per year
- Unpaid leave of absence: trainees requiring more time away must seek NLM prior approval for LOA. No stipend paid during LOA. Must terminate in xTrain and reappoint if returning.
- Part-time training: allowed with NLM prior approval for unusual circumstances such as medical conditions, for a limited time period. Must be at least 50%.

Appointment policies: additional slots

- NLM prior approval is required in order to appoint more trainees than the awarded number of slots.
- Must be able to support the costs for the additional trainee via rebudgeting of current year funds.
 - Prior approval request should explain the source of funds for supporting the additional trainee (i.e., which budget categories have an excess of funds available and why)

Prior approval requests

Common Prior Approval Items

- Trainee leave of absence/unpaid leave
- Part-time training period
- Trainee appointment period of less than 9 months
- Trainee total appointment time exceeding the maximum support allowance
- Appointment of additional trainees exceeding the number of slots on the Notice of Award
- Converting predoc slot to postdoc (or vice versa)

*this is not an all-inclusive list — please refer to the NIH Grants Policy Statement

Policy ref: NIH GPS 8.1.3 and 11.3

How to Request Prior Approval

- Requests must be made in writing, no later than 30 days before the proposed change
- Must include evidence of authorized Signing Official's concurrence
 - Some requests also require signature(s) of PD/PI and/or trainee – refer to NIH GPS
- Email requests should be sent by the authorized Signing Official to the Grants Management Specialist, with cc to the Program Official
- Official approval comes from Grants Management
 - Informal discussions with Program Official are ok, but only responses provided by the GMO are officially valid

Policy ref: NIH GPS 8.1.3 and 11.3

Reporting requirements

Reporting requirements: xTrain forms

Appointments

- Must be submitted prior to the trainee start date.
- No stipend or other allowances may be paid until the Statement of Appointment (2271) has been accepted by NLM through xTrain.
- Trainee appointment start dates may occur at any time during the budget period, but all Statement of Appointment forms must be submitted no later than 2 months prior to the budget period end date (4/30)

Terminations

- Must be submitted in xTrain within 30 days of the end of the total support period for the trainee.
- Trainees who are taking an approved Leave of Absence must have their appointment terminated in xTrain during the LOA period.

Reporting Requirements: Progress Reports

- Research Performance Progress Report (RPPR) is due annually on <u>April 30th</u>.
- RPPR instruction guide: <u>https://grants.nih.gov/grants/rppr/index.htm.</u> (Specific instructions for Training RPPRs in section 7.4)
- All **appointment forms** for the budget period must be entered in xTrain **before April 30**th in order to be included in the RPPR tables.
 - Even appointments that begin in May/June must be entered in advance so that your reporting will be accurate.
- Ensure that publications are compliant with the NIH Public Access Policy.

Reporting Requirements: Financial Reporting

- Federal Financial Report (FFR): Submitted annually; due September
 30 for budget period ending June 30.
- Unliquidated obligations: can be used to report any stipends, tuition charges, applicable F&A (and health insurance depending on institutional policy) for appointments that overlap budget periods.
 Consult with your financial office on their policies.
- Carryover of an unobligated balance is not generally allowed. Net unobligated balances are typically used to offset the next awarded budget period.

Contact Information

- Grants Management assignments:
 - Amy Keener: Colorado, Rice, South Carolina, Stanford, Vanderbilt, Utah
 - <u>Ebony Hughes</u>: Calif-San Diego, Columbia, Indiana, Johns Hopkins, Yale, Washington
 - <u>Samantha Tempchin</u>: Buffalo, Calif-Los Angeles, Harvard, Oregon, Pittsburgh, Wisconsin
- eRA Service Desk https://www.era.nih.gov/need-help