"Best Practices for Competitive NIH Institutional Research Training Grant Applications"

Office of the Executive Vice President for Research
Columbia University

March 6, 2019

Jaime S. Rubin, Ph.D.
Dept. of Medicine
jsr9@columbia.edu
342-3184

NIH Training Grants

- **Institutional National Research Service Awards**
  - General description
  - Types of training grants
  - Funding announcements
  - Data: No. of applications, awards, and success rate

NIH Training Grants

- **Applications: Overview of Major Components**
  - Research
  - Mentors
  - Applicant pool
  - Training program
  - Didactics, career development, other activities
  - Role of Institutions
  - Tables

NIH Training Grants

- **Applications: NIH Review**
  - Role of NIH Institutes
  - Deadlines
  - Scoring scale, Impact Scores
  - Review criteria
- **Applications: Detail of Major Components**
  - Program Plan
  - Tables

NIH Training Grants

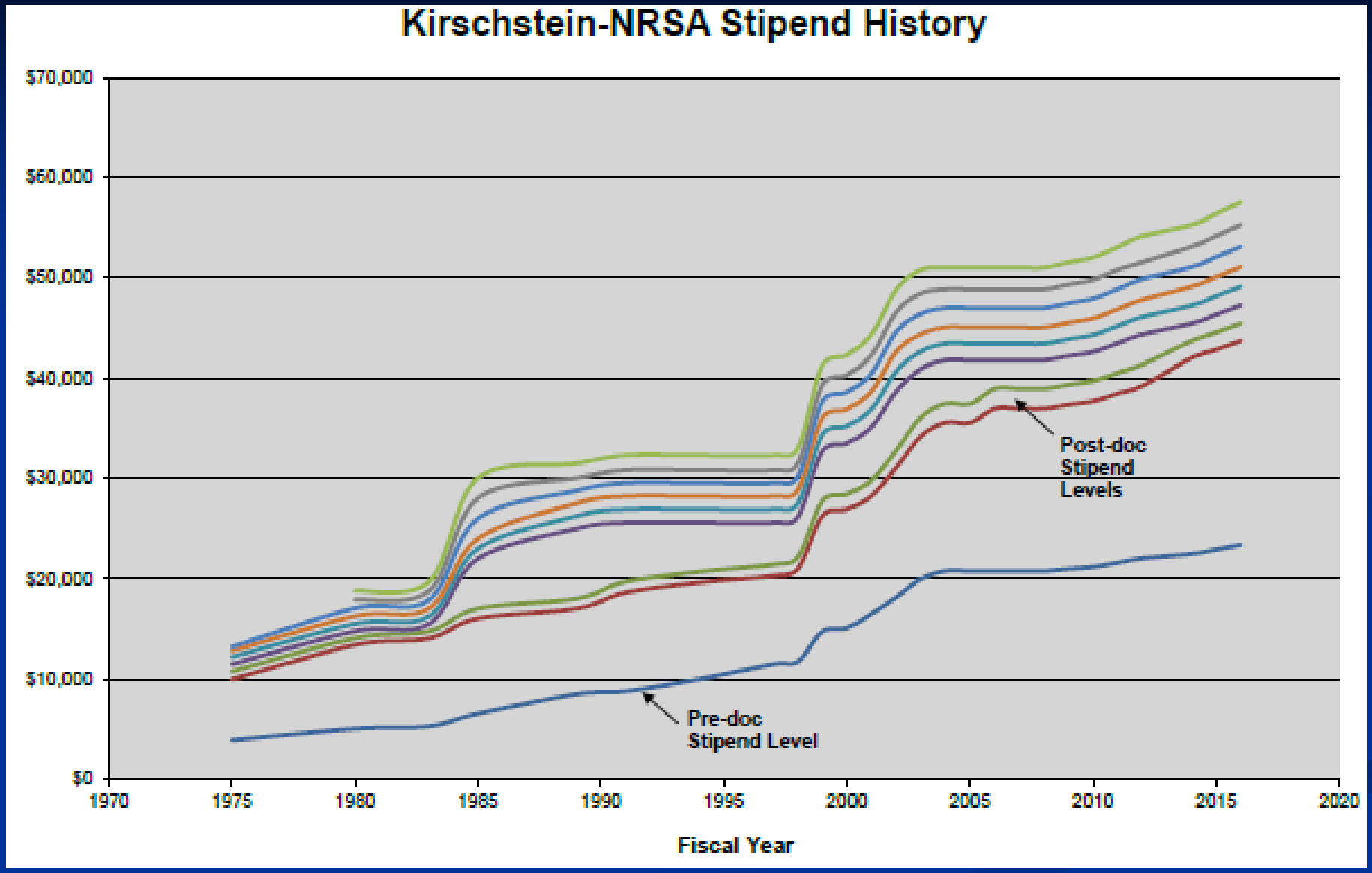
- **Institutional National Research Service Awards**
  - General description
  - Types of training grants
  - Funding announcements
  - Data: No. of applications, awards, and success rate

Institutional National Research Service Award (T32, T35)

- Institutions select trainees to support for training and career development in defined areas of research
- Defined number of slots
  - Pre-docs, post-docs, or both
- Provides:
  - Stipend
  - Health fees (Training Related Expenses)
  - Tuition
  - Travel

Budget

- Defined line items
- Defined amounts for each line item
- **Stipends:**
  - NIH may increase each FY
  - Pre-doctoral Trainees: One stipend level (FFY19: $24,816)
  - Post-doctoral trainees: Sliding scale based on years of experience (starts at Career Level 0)
- **Tuition:** NIH-set levels
- **Training Related Expenses (TRE):** NIH-set levels
- **Travel:** May be set by Institute



https://researchtraining.nih.gov/sites/default/files/pdf/NRSA_Stipend_History_Graph.pdf

Budget

- **Tuition:**
  - Pre-doctoral Trainee: "60% of the level requested by the sponsoring institution, up to $16,000 per year"
  - Dual-degree Pre-doctoral Trainee (e.g., MD/PhD): "60% of the level requested by the sponsoring institution… up to $21,000 per year."
  - Postdoctoral Trainee: "60% of the level requested by the applicant institution, up to $4,500 per year"
  - Postdoctoral Trainee in a Formal Degree-Granting Program: "60% of the level requested by the applicant institution… up to $16,000 per year."

NIH Grants Policy Statement:
http://grants.nih.gov/grants/policy/nihgps/HTML5/section_11/11.3_institutional_research_training_grants.htm

Budget

- **Training Related Expenses (TRE):**
  - Per Trainee, per year
    - Pre-doctoral Trainee: $4,200 (FFY 2019)
    - Postdoctoral Trainee: $10,850 (FFY 2019)
  - "staff salaries, consultant costs, equipment, research supplies, staff travel, trainee health insurance (self-only or family as applicable), and other expenses directly related to the training program"

NIH Grants Policy Statement:
http://grants.nih.gov/grants/policy/nihgps/HTML5/section_11/11.3_institutional_research_training_grants.htm

Training | Fell

Institutional Training Grants

T32

Ruth L. Kirschstein Institutional National Research Service Award

To enable institutions to recruit individuals selected by the program leadership for predoctoral and/or postdoctoral research training in specified scientific areas.

Details | *View Current Funding Opportunities*

- **Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent T32)**
- Revision Awards to Institutional Training Programs to Advance Research on Alzheimers Disease and Alzheimer's Disease Related Dementias (T32)
- Jointly Sponsored Ruth L. Kirschstein National Research Service Award for Institutional Predoctoral Training Programs in the Neurosciences (T32)
- National Institute of General Medical Sciences Ruth L. Kirschstein National Research Service Award (NRSA) Predoctoral Institutional Research Training Grant (T32)
- Institutional Training Programs to Advance Translational Research on Alzheimer's Disease and AD Related Dementias (T32 - Clinical Trial Not Allowed)
- T32 Training Program for Institutions That Promote Diversity (T32 Clinical Trial Not Allowed)
- Predoctoral Training in Advanced Data Analytics for Behavioral and Social Sciences Research (BSSR) - Institutional Research Training Program [T32]

https://researchtraining.nih.gov/programs/training-grants

Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent T32)

PA-18-403

National Cancer Institute (NCI)
National Eye Institute (NEI)
National Human Genome Research Institute (NHGRI)
National Institute on Aging (NIA)
National Institute of Allergy and Infectious Diseases (NIAID)
National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
National Institute of Biomedical Imaging and Bioengineering (NIBIB)
Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)
National Institute on Deafness and Other Communication Disorders (NIDCD)
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
National Institute on Drug Abuse (NIDA)
National Institute of Environmental Health Sciences (NIEHS)
National Institute of General Medical Sciences (NIGMS)
National Institute of Mental Health (NIMH)
National Institute of Nursing Research (NINR)
National Center for Complementary and Integrative Health (NCCIH)
National Heart, Lung, and Blood Institute (NHLBI)
Division of Program Coordination, Planning and Strategic Initiatives, Office of Research Infrastructure Programs (ORIP)
National Institute of Neurological Disorders and Stroke (NINDS)
National Institute on Alcohol Abuse and Alcoholism (NIAAA)

https://grants.nih.gov/grants/guide/pa-files/PA-18-403.html

Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent T32)

PA-18-403

Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent T32) (PA-18-403)

PA-18-403

Table of IC-Specific Information, Requirements and Staff Contacts

Release Date: November 21, 2017
Expiration Date: January 8, 2021

• NIH Institute or Center Contacts	• Institute or Center Specific Information

- Contact Institute Program Officer
- Confirm Application Deadline (not all Institutes accept applications at all 3 deadlines)
- Additional info on programmatic focus, PI requirements, costs (e.g., trainee travel)
- Some Institutes have their own Training Grant dedicated webpages

https://grants.nih.gov/grants/guide/contacts/parent-T32-institutional-research.html

Ruth L. Kirschstein National Research Service Award (NRSA) Short-Term Institutional Research Training Grant (Parent T35)

PA-18-404

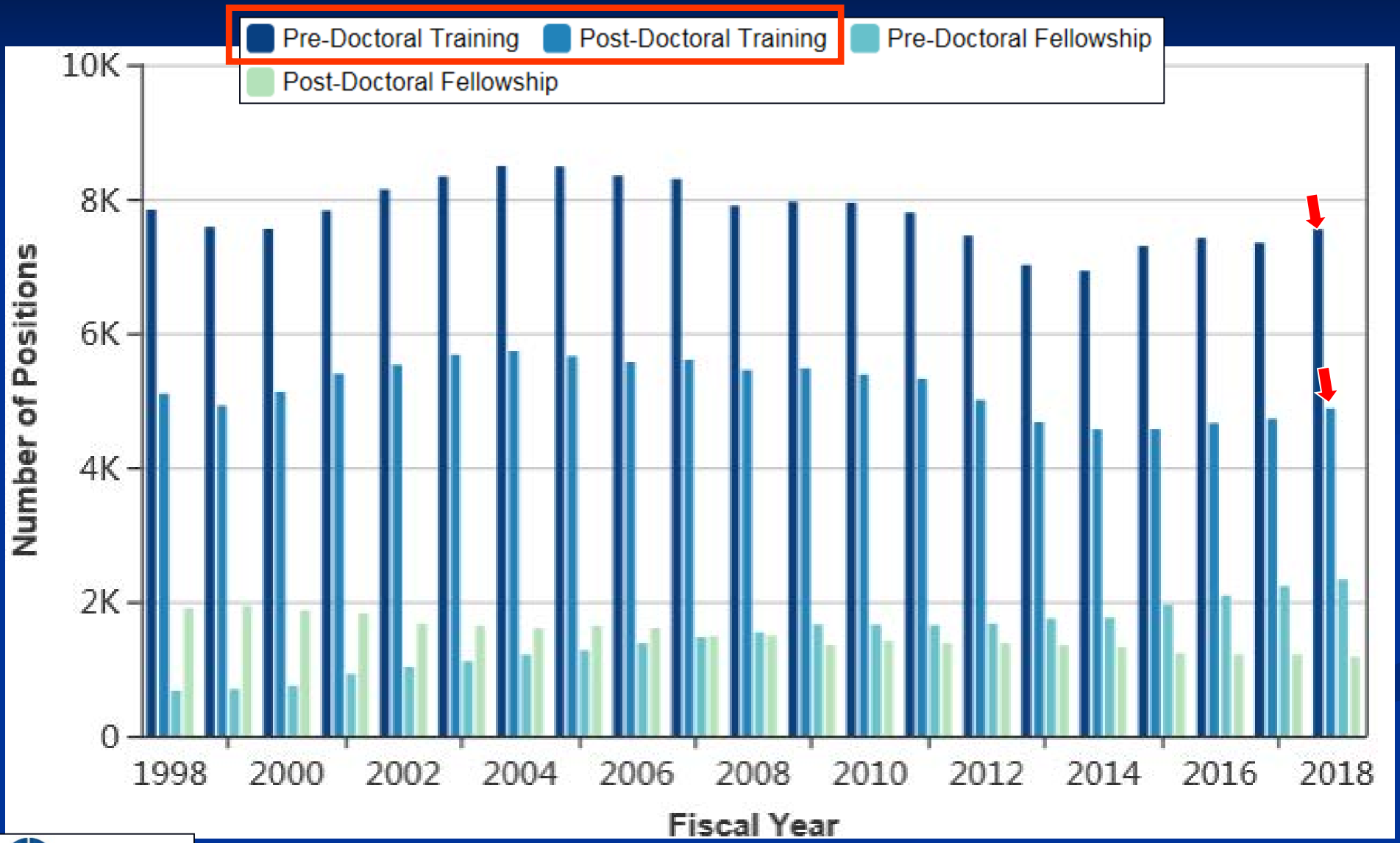
National Eye Institute (NEI)
National Institute on Aging (NIA)
National Institute of Allergy and Infectious Diseases (NIAID)
National Institute of Biomedical Imaging and Bioengineering (NIBIB)
National Institute on Deafness and Other Communication Disorders (NIDCD)
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
National Institute of Environmental Health Sciences (NIEHS)
National Center for Complementary and Integrative Health (NCCIH)
Division of Program Coordination, Planning and Strategic Initiatives, Office of Research Infrastructure Programs (ORIP)
National Heart, Lung, and Blood Institute (NHLBI)
National Institute on Alcohol Abuse and Alcoholism (NIAAA)

https://grants.nih.gov/grants/guide/pa-files/PA-18-404.html

NIH Training Grants

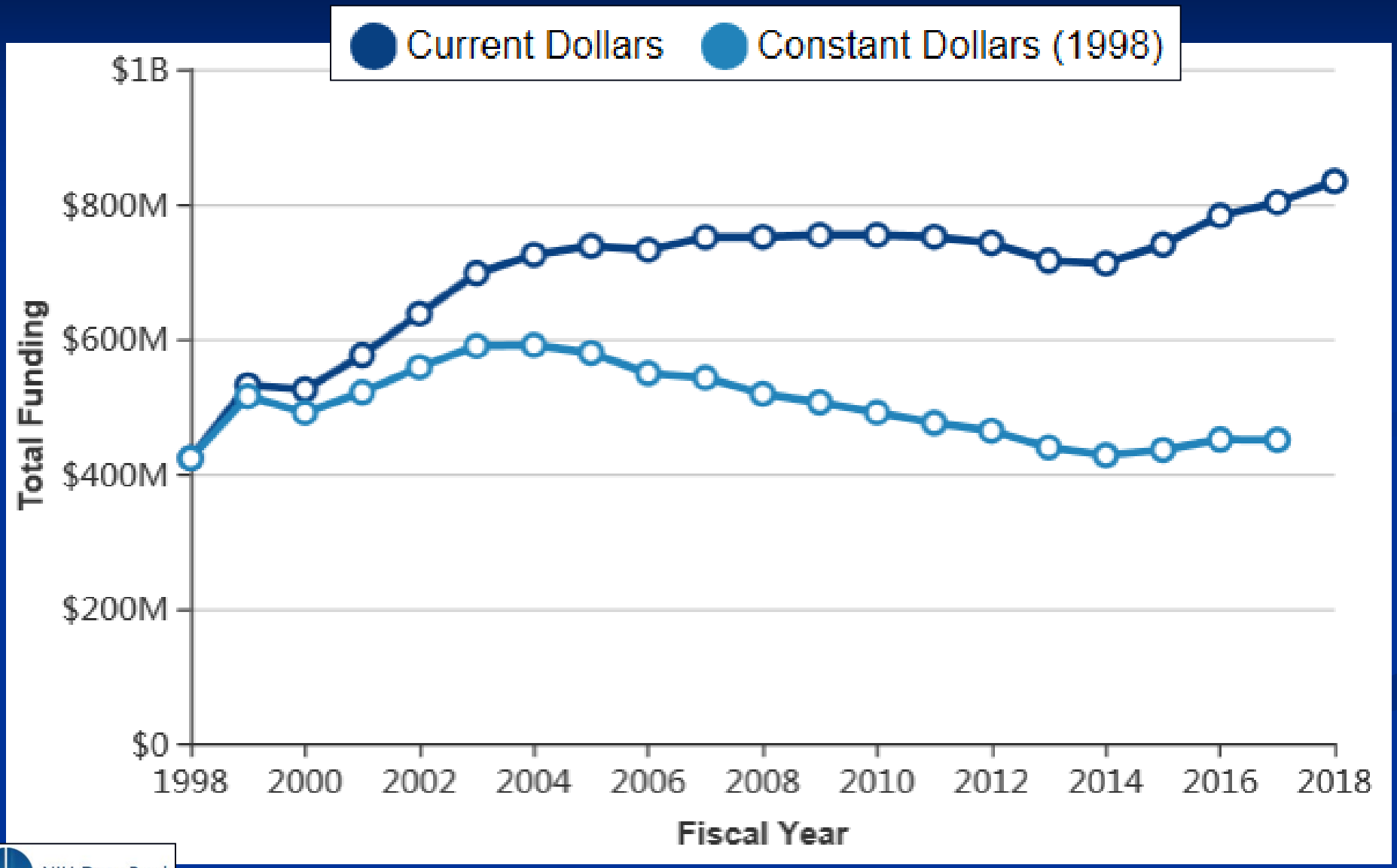
- **Institutional National Research Service Awards**
  - General description
  - Types of training grants
  - Funding announcements
  - Data: No. of applications, awards, and success rate

Training Grants and Fellowships: Pre- and Post-Doctoral Positions



NIH Data Book

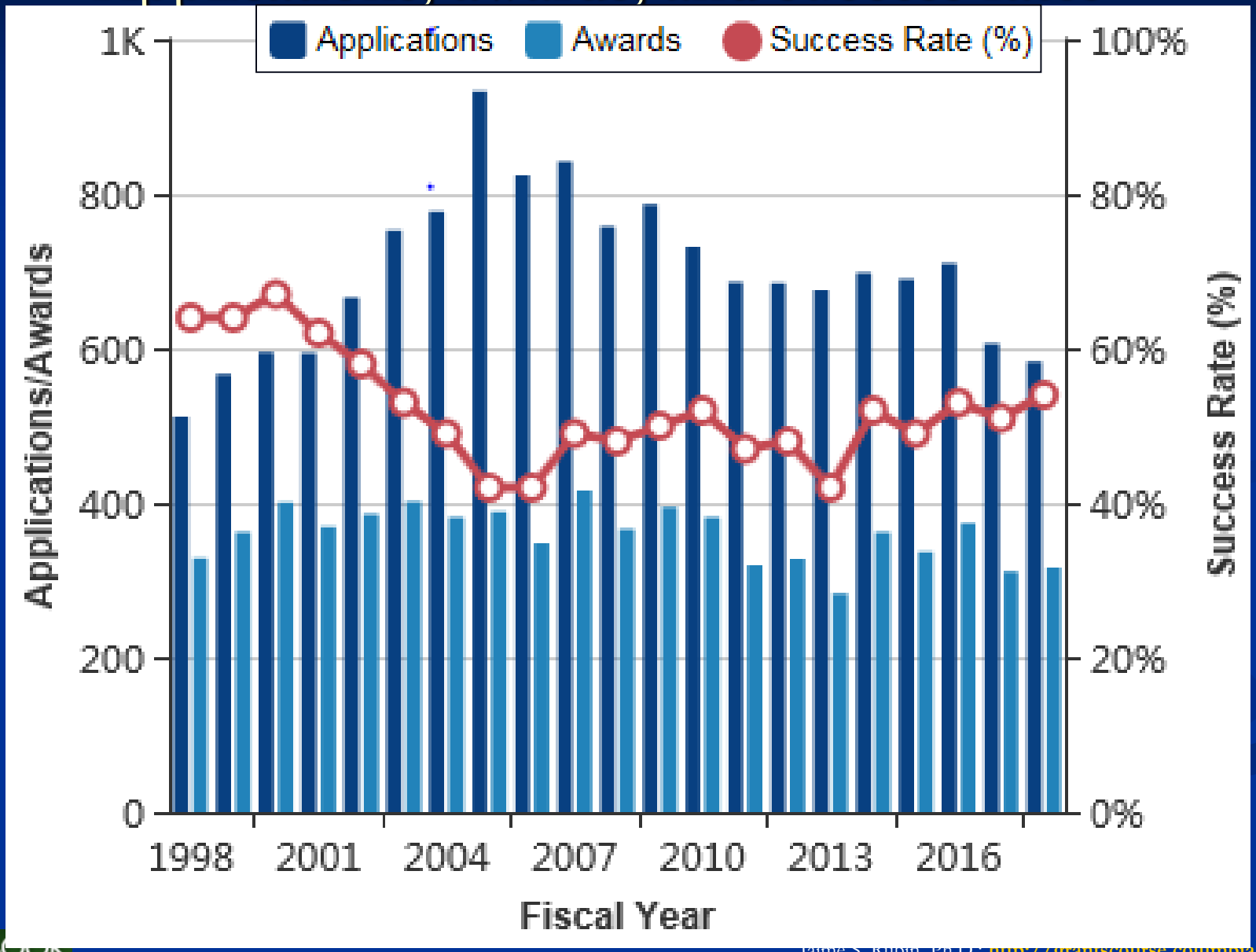
Training Grants and Fellowships: Funding in Current and Constant Dollars



NIH Data Book

NRSA Institutional Research Training Grants

Applications, awards, and success rates



Research Portfolio Online Reporting Tools (RePORT)

Funding Facts

ADVANCED SEARCH

Topic:	Applications - Number,Awards -	SELECT
Admin Institute/Center:	All NIH	SELECT
Funding Mechanism:	Training - NRSA Training Grants	SELECT
Activity:	T32	SELECT
Type:	New	SELECT
Fiscal Year:	2014	SELECT

SUBMIT QUERY RESET QUERY

Research Portfolio Online Reporting Tools (RePORT)

Funding Facts

IC	Fiscal Year	Topic	Activity	Type	Statistic
All NIH	2014	Applications - Number	T32	New	204
All NIH	2014	Awards - Number	T32	New	53
All NIH	2014	Success Rate	T32	New	25.98%

NIH Research Portfolio Online Reporting Tools (RePORT)

Funding Facts

ADVANCED SEARCH

Topic:	Applications - Number,Awards -	SELECT
Admin Institute/Center:	All NIH	SELECT
Funding Mechanism:	Training - NRSA Training Grants	SELECT
Activity:	T32	SELECT
Type:	Competing Renewals	SELECT
Fiscal Year:	2014	SELECT

SUBMIT QUERY RESET QUERY

Research Portfolio Online Reporting Tools (RePORT)

Funding Facts

IC	Fiscal Year	Topic	Type	Statistic
All NIH	2014	Applications - Number	Competing Renewals	493
All NIH	2014	Awards - Number	Competing Renewals	309
All NIH	2014	Success Rate	Competing Renewals	62.68%

Fiscal Year	Activity Code	NIH Institute / Center	Number of Applications Reviewed	Number of Applications Awarded	Success Rate[1]	Total Funding[2]
2009	T32	NHLBI	91	64	70.3%	$18,497,106
2010	T32	NHLBI	65	44	67.7%	$16,582,524
2011	T32	NHLBI	56	38	67.9%	$15,772,051
2012	T32	NHLBI	58	32	55.2%	$10,457,803
2013	T32	NHLBI	68	40	58.8%	$15,134,122
2014	T32	NHLBI	80	43	53.8%	$14,205,767
2015	T32	NHLBI	70	46	65.7%	$19,162,004
2016	T32	NHLBI	64	43	67.2%	$20,121,630
2017	T32	NHLBI	69	47	68.1%	$16,198,115
2018	T32	NHLBI	58	42	72.4%	$18,498,672

https://report.nih.gov/success_rates/index.aspx

SUBMIT QUERY | CLEAR QUERY

NIH RePORTER

Fiscal Year (FY): Active Projects SELECT
Current FY is 2017

RESEARCHER AND ORGANIZATION

Principal Investigator (PI) / Project Leader: (Last Name, First Name)
Use '%' for wildcard in PI names
Enter several PI/Project Leader names OR PI Profile IDs

Organization: LOOKUP
Please enter at least 3 characters to use Lookup.
Contains Begins with Exact

Department: SELECT

Organization Type: SELECT

City:
Use '%' for wildcard

State: SELECT

Country: SELECT

Congressional District: SELECT

DUNS Number:

TEXT SEARCH

Text Search (*Logic*):
And
Or
Advanced

T32

1 R01 CA 811099 01 A1S1

PROJECT DETAILS

Project Number/ Application ID:
Format: 5R01CA012345-04/ 8515397
Use '%' for wildcard in project number, e.g. %R21%
Enter multiple project numbers/application IDs
OR

1 R01 CA 811099 01 A1S1

Program Officer (PO): (Last Name, First Name)
Use '%' for wildcard

Project Start Date: >=
Format: mm/dd/yyyy

Project End Date: <=
Format: mm/dd/yyyy

Award Notice Date: >
Format: mm/dd/yyyy

Agency/Institute/Center: SELECT
Admin Funding

NIH Spending Category: SELECT

Funding Mechanism: SELECT

Award Type: SELECT

Activity Code: SELECT

Study Section: SELECT
Standing CSR study sections only

FOA:
Format: RFA-IC-09-003 or PA-09-003
20 entry maximum; Use % for wildcard
Funding Opportunities and Notices

NIH Reporter – NIDDK T32 awards

There were 192 results matching your search criteria .

T Act Project Year Sub #	Project Title	Project Leader	Organization	FY	Admin IC	Funding IC	FY Total Cost by IC
3 T32 DK007271 39S1	TRAINING GRANT IN ENDOCRINOLOGY AND METABOLISM	BILEZIKIAN, JOHN P	COLUMBIA UNIVERSITY HEALTH SCIENCES	2018	NIDDK	NIDDK	$52,689
3 T32 DK007559 28S1	OBESITY RESEARCH CENTER TRAINING GRANT	PI-SUNYER, XAVIER	COLUMBIA UNIVERSITY HEALTH SCIENCES	2018	NIDDK	NIDDK	$25,672
5 T32 DK007271 39	TRAINING GRANT IN ENDOCRINOLOGY AND METABOLISM	BILEZIKIAN, JOHN P	COLUMBIA UNIVERSITY HEALTH SCIENCES	2018	NIDDK	NIDDK	$264,511
5 T32 DK007328 39	HORMONES: BIOCHEMISTRY AND MOLECULAR BIOLOGY	GOTTESMAN, MAX ELLIOT	COLUMBIA UNIVERSITY HEALTH SCIENCES	2018	NIDDK	NIDDK	$359,729
5 T32 DK007559 28	OBESITY RESEARCH CENTER TRAINING GRANT	PI-SUNYER, XAVIER	COLUMBIA UNIVERSITY HEALTH SCIENCES	2018	NIDDK	NIDDK	$229,670
5 T32 DK007647 29	GRADUATE TRAINING IN NUTRITION	WOLGEMUTH, DEBRA J.	COLUMBIA UNIVERSITY HEALTH SCIENCES	2018	NIDDK	NIDDK	$282,914
5 T32 DK063522 14	TRAINING GRANT IN PEDIATRIC ENDOCRINOLOGY, DIABETES AND METABOLISM	OBERFIELD, SHARON E.	COLUMBIA UNIVERSITY HEALTH SCIENCES	2018	NIDDK	NIDDK	$218,302
5 T32 DK083256 10	MULTIDISCIPLINARY TRAINING IN TRANSLATIONAL GASTRINOINTESTINAL AND LIVER RESEARCH	WANG, TIMOTHY CRAGIN	COLUMBIA UNIVERSITY HEALTH SCIENCES	2018	NIDDK	NIDDK	$234,621
5 T32 DK106741 03	PRECISION MEDICINE RESEARCH IN NEPHROLOGY	GHARAVI, ALI G et al.	COLUMBIA UNIVERSITY HEALTH SCIENCES	2018	NIDDK	NIDDK	$150,827

NIH Reporter – NIDDK T32 awards

Project Number: 5T32DK108741-03
Title: PRECISION MEDICINE RESEARCH IN NEPHROLOGY
Contact PI / Project Leader: GHARAVI, ALI G
Awardee Organization: COLUMBIA UNIVERSITY HEALTH SCIENCES

Contact PI / Project Leader Information:
Name: GHARAVI, ALI G
Email: Click to view Contact PI / Project Leader email address
Title: PROFESSOR OF MEDICINE

Program Official Information:
Name: RANKIN, TRACY L
Email: Click to view PO email address

Other PI Information:
BARASCH, JONATHAN M.

Profile Exists No Pro

Organization:
Name: COLUMBIA UNIVERSITY HEALTH SCIENCES
City: NEW YORK **Country:** UNITED STATES (US)

Department Type/ Organization Type:
INTERNAL MEDICINE/MEDICINE
SCHOOLS OF MEDICINE

Congressional District:
State Code: NY
District: 13

Other Information:
FOA: PA-14-015
Study Section: Special Emphasis Panel [ZDK1-GRB-G (J2)M]
Fiscal Year: 2018 **Award Notice Date:** 22-JUN-2018

DUNS Number: 621889815
Project Start Date: 1-JUL-2016
Budget Start Date: 1-JUL-2018

CFDA Code: 847
Project End Date: 30-JUN-2021
Budget End Date: 30-JUN-2019

Administering Institutes or Centers:
NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES

Project Funding Information for 2018:
Total Funding: $150,827
Direct Costs: $154,654
Indirect Costs: $10,035

NIH Reporter – NIDDK T32 awards

Project Number:	5T32DK108741-03	**Contact PI / Project Leader:**	GHARAVI, ALI G
Title:	PRECISION MEDICINE RESEARCH IN NEPHROLOGY	**Awardee Organization:**	COLUMBIA UNIVERSITY HEALTH SCIENCES

Abstract Text:

DESCRIPTION (provided by applicant): The goal of this project is to develop and train Nephrology fellows in Precision Medicine Research for Kidney Diseases. In the majority of patients with kidney disease, the diagnosis is based on clinical information, and sometimes by kidney biopsy. However, genetic and acquired forms of disease are usually indistinguishable based on clinical tools and frequently, the precise etiology of kidney failure remains undiagnosed. In recent years, advances in genomic, proteomic and data sciences have enabled more precise delineation of molecular mechanisms of disease, allowing reclassification of renal disorders based on primary molecular pathogenesis, and sometimes. As these advanced technologies are being incorporated into clinical practice at an increasingly rapid rate, they are bridging basic research with clinical investigations and the daily practice of Medicine. These technologies promises to have transformative effect in the care of patients with Chronic Kidney Disease (CKD), because kidney disorders are frequently diagnosed based on clinical assessment alone, and late diagnosis or misclassification may cause uncertainty in identifying the etiology of disease. These advances indicate that there are major opportunities and for treeing young investigators in precision Medicine Research in Nephrology. To achieve this aim, we brought together participating a high-qualified faculty members, who bring a diverse expertise that span the full spectrum of research in Precision Medicine. They hold multiple appointments in participating departments, the Department of Medicine, The Department of Biomedical Informatics, the Center for Translational Immunology, the Department of Pathology, The Department of Genetics and Development, the Department of Systems Biology, the Center for Behavioral and Cardiovascular Health, the Department of Physiology, the Department of Biomedical Engineering, the Department of Epidemiology in the Mailman School of Public Health, and all play crucial roles in this application. All of the mentors are well funded, the vas majority with NIH funding and have a track record of successfully mentoring trainees to independent careers in investigation. This program will prepare the next generation of investigators in kidney disease research, to simultaneously acquire multidisciplinary expertise and a strong domain- specific knowledgebase to effectively design and implement research within Nephrology.

NIH Training Grants

- **Applications: Overview of Major Components**
  - Research
  - Mentors
  - Applicant pool
  - Training program
  - Didactics, career development, other activities
  - Role of Institutions
  - Tables

Research

- Thematic
- Multidisciplinary/Interdisciplinary
- Collaborative
- State-of-the-art

NIH Training Grants

- **Applications: Overview of Major Components**
  - Research
  - Mentors
  - Applicant pool
  - Training program
  - Didactics, career development, other activities
  - Role of Institutions
  - Tables

Mentors - 1

- **Quality**
  - NIH-funded in TG research area(s)
  - History of successfully mentoring pre-doc and post-doctoral trainees
    - Past mentees have continued in successful research careers (grants, publications)
  - Publications in TG research area(s)
  - History of collaborations
    - Research, Mentoring

Mentors - 2

- **Quantity**
  - "Critical mass" in TG research area(s)
  - Age distribution
    - Junior faculty w/o NIH funding:
      Possible co-mentors w/ more senior faculty
  - Gender distribution
  - Coincides with requested number of slots

Junior-Senior Mentor Pairs

NIH Training Grants

- **Applications: Overview of Major Components**
  - Research
  - Mentors
  - Applicant pool
  - Training program
  - Didactics, career development, other activities
  - Role of Institutions
  - Tables

Applicant Pool

- **Quantity**
  - Training Grant Eligible [TGE]
  - Coincides with requested number of slots
- **Quality**
  - Past research experiences
  - Academic record
  - Reviewers will be confident that they will continue in research-oriented careers

NIH Training Grants

- **Applications: Overview of Major Components**
  - Research
  - Mentors
  - Applicant pool
  - Training program
  - Didactics, career development, other activities
  - Role of Institutions
  - Tables

Training Program - 1

- **Formal organizational structure**
  - Director(s)
    - Expertise and experience as leader and administrator (preferably in a training/educator role)
  - Associate Program Directors
  - Programmatic Committees
  - Advisory Committees
    - Internal and External

Training Program - 2

- **Formal Processes**
  - Recruitment/Admissions
    - Committee
    - Selection Process
    - Advertisement
    - Materials
    - Underrepresented Minorities
  - Trainees' selection of mentors
  - Monitoring of trainees' academic/ research progress
  - Didactic program
  - Measurement/Evaluation of training program
    - e.g. Outcomes, Questionnaires for mentors and mentees

NIH Training Grants

- **Applications: Overview of Major Components**
  - Research
  - Mentors
  - Applicant pool
  - Training program
  - Didactics, career development, other activities
  - Role of Institutions
  - Tables

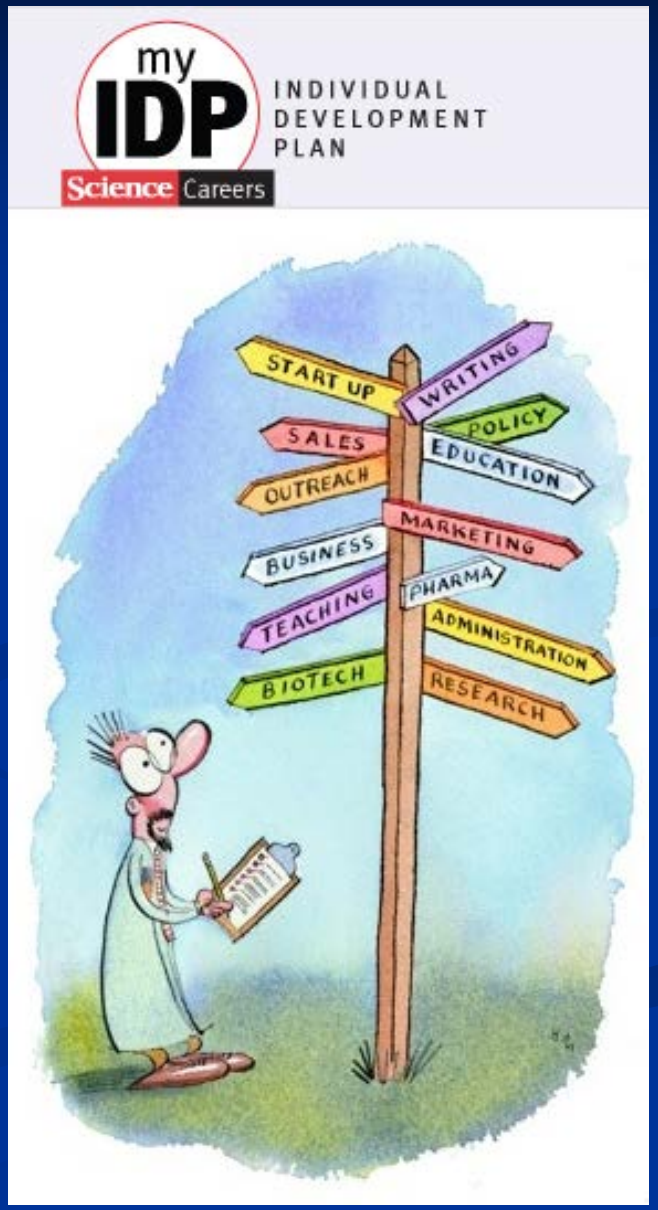
Didactics, Career Development, and Other Activities

- Formal courses
- Retreat
- Seminars/ Journal Clubs
- Research presentations
- Individual Development Plans (IDP)
- Training in the "Responsible Conduct of Research"
- Training in "Rigor and Reproducibility"

Program-specific activities are important

Individual Development Plans

- **Science Careers: myIDP:**
- "Exercises to help you examine your skills, interests, and values
- A list of 20 scientific career paths with a prediction of which ones best fit your skills and interests
- A tool for setting strategic goals for the coming year, with optional reminders to keep you on track
- Articles and resources to guide you through the process"



http://myidp.sciencecareers.org/

Advanced Notice of Coming Requirements for Formal Instruction in Rigorous Experimental Design and Transparency to Enhance Reproducibility: NIH and AHRQ Institutional Training Grants, Institutional Career Development Awards, and Individual Fellowships

Institutional training grant applications will be required to include within the training program plan *a summary of the instruction* planned for all predoctoral and postdoctoral trainees to ensure the knowledge and skills required to design and conduct rigorous, well-controlled experiments that consider all relevant biological variables, use authenticated biological and chemical resources, and apply appropriate statistical tests for data analyses. In addition, a separate attachment will be required to describe in more detail the instructional content and curricular content. The impacted programs will include the following training grants: D43, T15, T32/TL1, T34, T35, T36, T37, T90/R90, and U2R.

http://grants.nih.gov/grants/guide/notice-files/NOT-OD-16-034.html

Additional Guidance on 'Full-Time Training' for Ruth L. Kirschstein National Research Service Awards

Notice Number: NOT-OD-17-095

Key Dates

Release Date: July 24, 2017

Full-Time Training

All Kirschstein-NRSA fellows (individual fellowships), and trainees (institutional training grants) are required to pursue their research training full time. Full-time is generally defined as devoting at least 40 hours per week to research training activities, or as specified by the awardee institution in accordance with its own policies.

Beyond the full-time training, NIH recognizes that Kirschstein-NRSA fellows and trainees may engage in part-time employment incidental to their training. Fellows and trainees may spend on average, an additional 25% of their time (e.g., 10 hours per week) in part time research, teaching, or clinical employment, so long as those activities do not interfere with, or lengthen, the duration their NRSA training. (See NIH Grants Policy Statement, Section 11.2.10.2 and 11.3.10.2, for more details.)

https://grants.nih.gov/grants/guide/notice-files/NOT-OD-17-095.html

NIH Training Grants

- **Applications: Overview of Major Components**
  - Research
  - Mentors
  - Applicant pool
  - Training program
  - Didactics, career development, other activities
  - Role of Institutions
  - Tables

Institution

- **Need**
  - Support for trainees not otherwise available
- **Support, Resources, and Commitment**
  - Letters of support from senior leadership
  - Research and career development resources
  - Financial, e.g., to support PI's effort, stipend/tuition supplementation
- **Training Program Integrated into Research and Academic Infrastructure**

NIH Training Grants

- **Applications: Overview of Major Components**
  - Research
  - Mentors
  - Applicant pool
  - Training program
  - Didactics, career development, other activities
  - Role of Institutions
  - Tables

Tables

- Very time- and labor-intensive
- Many different data elements on mentors, applicant pool, and past and current trainees
- Information from many different institutional academic components
  - Schools, Departments, Centers/Institutes, etc.
- NIH provides example completed Tables
- Cannot start too early

NIH Training Grants

- **Applications: NIH Review**
  - Role of NIH Institutes
  - Deadlines
  - Scoring scale, Impact Scores
  - Review criteria
- **Applications: Detail of Major Components**
  - Program Plan
  - Tables

National Institutes of Health

- National Cancer Institute
- National Eye Institute
- National Heart, Lung, & Blood Institute
- National Human Genome Research Inst
- National Institute on Aging
- National Inst of Alcohol Abuse & Alcoholism
- National Inst of Allergy & Infectious Diseases
- National Inst of Arthritis & Musculoskeletal & Skin Diseases
- National Institute of Child Health & Human Development
- National Inst on Deafness & other Communication Disorders
- National Inst of Dental & Craniofacial Research
- National Institute of Diabetes & Digestive & Kidney Diseases
- National Institute on Drug Abuse
- National Institute of Environmental Health Sciences
- National Institute of General Medical Sciences
- National Inst of Biomedical Imaging and Bioengineering
- National Institute of Mental Health
- National Inst of Neurological Dis and Stroke
- National Institute of Nursing Research
- National Library of Medicine
- National Ctr for Complementary & Alt Medicine
- National Inst on Minority Health & Health Disparities
- National Center for Research Res
- John E. Fogarty International Center
- Office of the Director
- ~~Center for Scientific Review~~
- Center for Information Technology
- WG Magnuson Clinical Center

Adapted from: NIH (DRG) - Peer Review of NIH Research Grants Applications

Cntr for Scientific Rev	Institutes
•Research Grants (R01, R03) •Fellowships (F's) •Small Business	•Multi-Project Grants (P01, P50, etc) •Training Grants (T's) •Career Development (K's) •Conference Grants (R13) •Research Grants in response to RFAs •Contracts

Application Due Dates

Activity Codes	Program Description	Cycle I Due Date	Cycle II Due Date	Cycle III Due Date
T Series D Series *All - new, renewal, resubmission, revision*	***Institutional*** **National Research Service Awards** **Other Training Grants** NOTE: Applicants should check with the relevant Institute or Center (IC), since some do not accept T series applications for all three receipt/review/award cycles. Applicants should refer to the IC Table of Contacts for information for each IC's scientific/research contact for the NRSA T32 program.	January 25	May 25	September 25

http://grants.nih.gov/grants/how-to-apply-application-guide/due-dates-and-submission-policies/due-dates.htm

Application Due Dates

Activity Codes	Program Description	Cycle I Due Date	Cycle II Due Date	Cycle III Due Date
All Activity Codes Cited Above *new, renewal, resubmission, revision*	**AIDS and AIDS-Related Applications** *Effective. Sept 5, 2015 - N/A for SBIR/STTR Applications using Standard Due Dates NOTE: See Key Dates section of funding opportunity announcement to determine if AIDS dates apply.	May 7	September 7	January 7

http://grants.nih.gov/grants/how-to-apply-application-guide/due-dates-and-submission-policies/due-dates.htm

Application Due Dates

Review and Award Cycles

	Cycle I	Cycle II	Cycle III
Application Due Dates	January 25 - May 7	May 25 - September 7	September 25 - January 7
Scientific Merit Review	June - July	October - November	February - March
Advisory Council Round	August or October *	January	May
Earliest Project Start Date	September or December *	April	July

http://grants.nih.gov/grants/how-to-apply-application-guide/due-dates-and-submission-policies/due-dates.htm

NIH Training Grants

- **Applications: NIH Review**
  - Role of NIH Institutes
  - Deadlines
  - Scoring scale, Impact Scores
  - Review criteria
- **Applications: Detail of Major Components**
  - Program Plan
  - Tables

NIH's Review Criteria

- **Overall Impact Score**
  - "Reviewers will provide an overall impact score to reflect their assessment of the likelihood that the proposed training program will prepare individuals for successful, productive scientific research careers and thereby exert a sustained influence on the research field(s) involved"
- **Core Review Criteria**

  A separate score is given for each

For Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent T32) (PA-18-403)
Check individual funding announcement if applying to another

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

Impact	Score	Descriptor	Additional Guidance on Strengths/Weaknesses
High	1	Exceptional	Exceptionally strong with essentially no weaknesses
	2	Outstanding	Extremely strong with negligible weaknesses
	3	Excellent	Very strong with only some minor weaknesses
Medium	4	Very Good	Strong but with numerous minor weaknesses
	5	Good	Strong but with at least one moderate weakness
	6	Satisfactory	Some strengths but also some moderate weaknesses
Low	7	Fair	Some strengths but with at least one major weakness
	8	Marginal	A few strengths and a few major weaknesses
	9	Poor	Very few strengths and numerous major weaknesses

Minor Weakness: An easily addressable weakness that does not substantially lessen impact

Moderate Weakness: A weakness that lessens impact

Major Weakness: A weakness that severely limits impact

http://grants.nih.gov/grants/peer/guidelines_general/scoring_system_and_procedure.pdf

INSTITUTIONAL TRAINING & INSTITUTIONAL CAREER AWARDS

Overall Impact:
The likelihood that the proposed training (T) or career development (K) program will prepare individuals for successful, productive scientific research careers and thereby exert a sustained influence on the research field(s) involved

Overall Impact	High	Medium	Low
Score	1 2 3	4 5 6	7 8 9

e.g. Proposes a high value training or career development program that is well designed to prepare individuals for highly successful, productive scientific research careers. May have some or no weaknesses in the criteria.

e.g. Proposes a high-value training or career development program that is adequately designed to prepare individuals for successful, productive scientific research careers. Weaknesses in the criteria reduce the overall impact to medium.

e.g. Proposes a training or career development program of moderate value that is adequately designed. May have some or no weaknesses in the criteria.

e.g. Proposes a training or career development program of moderate value that is adequately designed to prepare individuals for successful, productive scientific research careers. Weaknesses in the criteria reduce the overall impact to low.

e.g., Proposes a low-value training or career development program that is inadequately designed. Has some weaknesses in the criteria.

Evaluating Overall Impact
Consider the 5 criteria
(weighting based on reviewer's judgment):

Ts
- Training Program and Environment
- Training PD(s)/PI(s)
- Preceptors/ Mentors
- Trainees
- Training Record

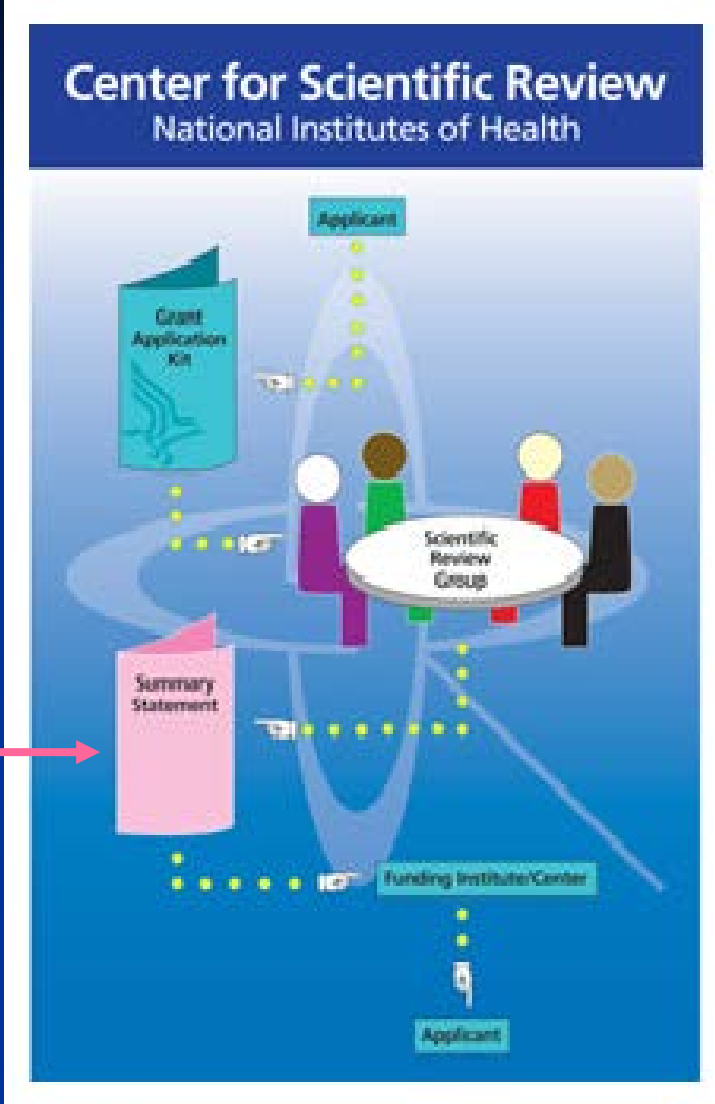
Ks
- Career Development Program & Environment
- PD(s)/PI(s)
- Mentors
- Candidates/ Scholars
- Training Record

and other score influences, e.g. human subjects, animal welfare, inclusion plans, and biohazards

5 is a good, medium-impact application. The entire scale (1-9) should always be considered.

https://grants.nih.gov/grants/peer/guidelines_general/scoring_guidance_training.pdf

Pink Sheet: Reviewers' Comments



Final Impact Score:

10 x Average (to one decimal point) of the Overall/Priority Score [1 – 9 (whole integers)] provided by all eligible reviewers.

Range: 10 – 90

Example: 20 reviewers

Scores: 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 3, 3, 3, 3, 3, 3, 3, 3, 3,

10 x 44/20 = 10 x 2.2 = 22

Training Grant Payline: NHLBI

Zone of Consideration		
Grant Program	**Grant Program Description**	**Zone of Consideration (Priority Score Range)**
T32, T35	Institutional NRSA Training	10 - 35

FY19

https://www.nhlbi.nih.gov/node-general/fy-2019-funding-and-operating-guidelines

NIH Training Grants

- **Applications: NIH Review**
  - Role of NIH Institutes
  - Deadlines
  - Scoring scale, Impact Scores
  - Review criteria
- **Applications: Detail of Major Components**
  - Program Plan
  - Tables

T32 – 1. Training Program and Environment

- "Are the research facilities and research environment conducive to preparing trainees for successful careers as biomedical research scientists?
- Are the objectives, design and direction of the proposed research training program likely to ensure effective training?

1. Training Program and Environment
Strengths • **Weaknesses** •

T32 – 1. Training Program and Environment

- "Do the courses, where relevant, and research experiences provide opportunities for trainees to acquire state-of-the-art scientific knowledge, methods, and tools that are relevant to the goals of the training program?
- Does the program provide appropriate inter- or multidisciplinary research training opportunities?
- Is the proposed training program likely to ensure trainees will be well prepared for research-intensive and research-related careers?

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

T32 – 1. Training Program and Environment

- "Is the level of institutional commitment to the training program, including administrative and research training support, sufficient to ensure the success of the program?
- Is it clear how the proposed training program is distinguished from other externally funded training programs at the institution?

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

T32 – 2. Training Program Director(s) (PI)

- "Does the PD/PI have the scientific background, expertise, and administrative and training experience to provide strong leadership, direction, management, and administration of the proposed research training program?
- Does the PD/PI plan to commit sufficient effort to the program to ensure the program's success?"

2. Training Program Director/Principal Investigator (PD/PI)

Strengths

-

Weaknesses

-

T32 – 2. Training Program Director(s) (PI)

- "For applications designating multiple PDs/PIs: Is a strong justification provided that the multiple PD/PI leadership approach will benefit the training program and the trainees? Is a strong and compelling leadership approach evident, including the designated roles and responsibilities, governance, and organizational structure consistent with and justified by the aims of the training program and the complementary expertise of the PDs/PIs?"

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

T32 - 3. Preceptors/Mentors

- "Are sufficient numbers of experienced preceptors/ mentors with appropriate expertise and funding available to support the number and level of trainees (including short-term trainees, if applicable) proposed in the application?"

3. Preceptors/Mentors
Strengths • **Weaknesses** •

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

T32 – 3. Preceptors/Mentors

- "Do the preceptors/mentors have strong records as researchers, including recent publications and successful competition for research support in areas directly related to the proposed research training program?"
- "Do the preceptors/mentors have strong records of training individuals at the level of trainees (including short-term trainees, if applicable) proposed in the program?"
- "Are appropriate plans in place to ensure that preceptors lacking sufficient research training experience are likely to provide strong and successful mentoring?"

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

T32 – 3. Preceptors/Mentors

- "If the program will support clinical trial research experience for the Trainees, do the mentor(s) who will supervise the Trainee(s) have the expertise, experience, resources, and ability to provide appropriate guidance and help the Trainee(s) to meet the timelines?"

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

T32 – 4. Trainees

- "Is a recruitment plan proposed with strategies likely to attract well-qualified trainees for the training program?
- Is there a competitive applicant pool of sufficient size and quality, at each of the proposed levels (predoctoral, postdoctoral and/or short-term), to ensure a successful training program?"?

4. Trainees
Strengths • **Weaknesses** •

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

T32 – 4. Trainees

- "Are there well-defined and justified selection and re-appointment criteria as well as retention strategies?"

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

T32 – 5. Training Record

- "How successful are the trainees (or for new applications, other past students/postdoctorates in similar training) in completing the program?"

5. Training Record
Strengths • **Weaknesses** •

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

T32 – 5. Training Record

- "Has the training program ensured that trainees are productive (or, for new applications, other past students/postdoctorates in similar training) in terms of research accomplishments, publication of research conducted during the training period, and subsequent training appointments and fellowship or career development awards?"

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

T32 – 5. Training Record

- "How successful are the trainees (or for new applications other past students/postdoctorates in similar training) in achieving productive scientific careers as evidenced by successful competition for research science positions in industry, academia, government or other research venues; grants, receipt of honors, awards, or patents; high-impact publications; promotion to scientific leadership positions; and/or other such measures of success?"

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

T32 – 5. Training Record

- "To what extent do trainees' subsequent positions in industrial, academic, government, non-profit, or other sectors benefit from their NRSA-supported research training and directly benefit the broader biomedical research enterprise?"
- "Does the program propose a rigorous evaluation plan to assess the quality and effectiveness of the training?
- Are effective mechanisms in place for obtaining feedback from current and former trainees?"

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

T32 – 5. Training Record

- "For applications that request short-term research training positions: Is there a record of retaining health professional trainees in research training or other research activities for at least two years?"

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

Additional Review Criteria

Considered for the overall impact score, but not given an individual score

- Resubmissions
  - Response to previous reviewers' comments and subsequent changes made to the proposal
- Competitive Renewals
  - Progress since the last funding period
    - Recruitment Plan to Enhance Diversity, Training in the Responsible Conduct of Research
    - Accomplishments; Achieving objectives, Evaluation of quality, effectiveness, outcomes, and feedback; Proposed changes (e.g., strengthen program, because of changes in the research area);

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

Additional Review Considerations

Not given an individual score and not considered for the overall impact score

- Recruitment Plan to Enhance Diversity
  - Rated as "Acceptable" or "Unacceptable"
- Training in the Responsible Conduct of Research
  - Five required components
  - Rated as "Acceptable" or "Unacceptable"
- Select Agent Research
- Budget and Period of Support

https://grants.nih.gov/grants/guide/pa-files/pa-18-403.html

The NIH Announces New Review Criteria for Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grants Involving Research Experiences in Clinical Trials

Notice Number: NOT-OD-17-123

Key Dates

Release Date: October 6, 2017

Scored Review Criteria

The following questions are in *addition* to the standard training review questions:

Training Program and Environment

•No additional questions.

Training Program Director(s)/Principal Investigator(s) (PD(s)/PI(s)

•No additional questions.

Preceptors/Mentors

•*If the program will support clinical trial research experience for the Trainees,* do the mentor(s) who will supervise the Trainee(s) have the expertise, experience, resources and ability to provide appropriate guidance and help the Trainee(s) to meet the timelines?

Trainees

•No additional questions.

Training Record

•No additional questions.

NIH Training Grants

- **Applications: NIH Review**
  - Role of NIH Institutes
  - Deadlines
  - Scoring scale, Impact Scores
  - Review criteria
- **Applications: Detail of Major Components**
  - Program Plan
  - Tables

FORMS VERSION E SERIES

Released: September 25, 2017

Revised: December 7, 2018

TRAINING INSTRUCTIONS FOR NIH AND OTHER PHS AGENCIES

SF424 (R&R) APPLICATION PACKAGES

https://grants.nih.gov/grants/how-to-apply-application-guide.html

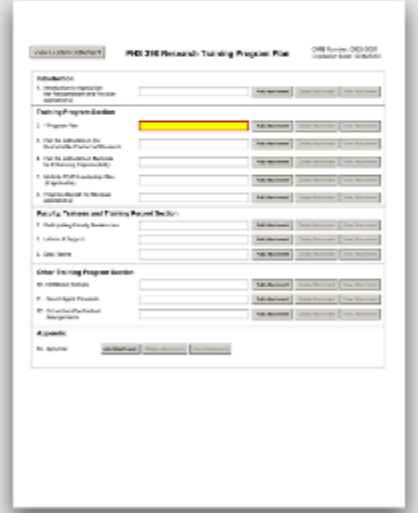
G.420 - PHS 398 Research Training Program Plan Form

The PHS 398 Research Training Program Plan Form is used only for Training applications and Multi-project applications with an "NRSA Training" Component.

This form includes fields to upload several attachments including the Program Plan, Faculty Biosketches, and Data Tables.

The attachments in this form, together with the rest of your application, should include sufficient information needed for evaluation of the training plan, independent of any other documents (e.g., previous application). Be specific and informative, and avoid redundancies.

View larger image



Introduction

- 1. Introduction to Application (for Resubmission and Revision applications)

Training Program Section

- 2. Program Plan
- 3. Plan for Instruction in the Responsible Conduct of Research
- 4. Plan for Instruction in Methods for Enhancing Reproducibility
- 5. Multiple PD/PI Leadership Plan (if applicable)
- 6. Progress Report (for Renewal applications)

Faculty, Trainees, and Training Record Section

- 7. Participating Faculty Biosketches
- 8. Letters of Support
- 9. Data Tables

Other Training Program Section

- 10. Vertebrate Animals
- 11. Select Agent Research
- 12. Consortium/Contractual Arrangements

Appendix

- 13. Appendix

https://grants.nih.gov/grants/how-to-apply-application-guide/forms-e/general/g.420-phs-398-research-training-program-plan.htm

Training Program Section

2. * Program Plan		Add Attachment
3. Plan for Instruction in the Responsible Conduct of Research		Add Attachment
4. Plan for Instruction in Methods for Enhancing Reproducibility		Add Attachment
5. Multiple PD/PI Leadership Plan (if applicable)		Add Attachment
6. Progress Report (for Renewal applications)		Add Attachment

Faculty, Trainees and Training Record Section

7. Participating Faculty Biosketches		Add Attachment
8. Letters of Support		Add Attachment
9. Data Tables		Add Attachment

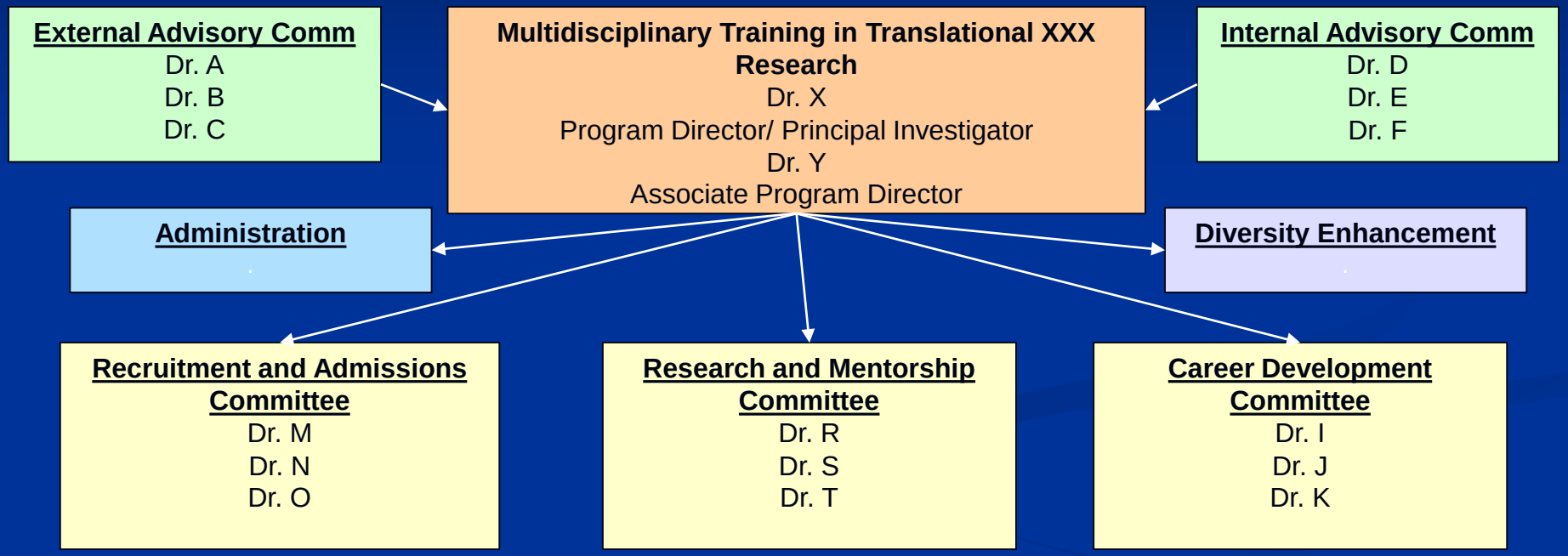
Program Plan

- 25 pages
- Refer to and summarize Data Tables in text
- Include Figures and Tables where informative
- **A. Background**
  - Rationale, history, need, current training activities, etc.
  - Tables 1, 2, and 3

Program Plan

- **B. Program Plan**
  - **a. Program Administration**
    - Program Director
      - Qualifications: Leadership, Scientific background, Research interests, Research training experience
      - Dedicated % effort
    - Administrative structure

Formal Organizational Structure

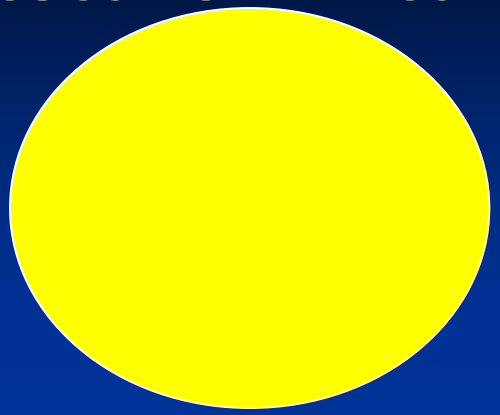


Committee	Role and Responsibilities
Recruitment and Admissions Committee	• Advertisement of training program • Recruitment of trainees • Formal application • Review and selection process • Diversity and recruitment of underrepresented minorities
Research and Mentorship Committee	• Trainees' selection of mentors • Didactic program, e.g., formal courses, workshops • Monitoring of trainees' academic and research progress • Yearly Retreat • Meetings with and Progress Reports to Advisory Committees • Seminars and Journal Clubs • Research presentations by trainees • Measurement/Evaluation of training program e.g., Outcomes ("Where are they Now"), Questionnaires for mentors and mentees
Career Development Committee	• Individual Development Plans (IDP) • Preparation for the next career stage e.g., Post-doctoral Trainees: "Transition to Independence" • Training: "Responsible Conduct of Research", how to write journal articles, give presentations, grantsmanship and funding, etc.

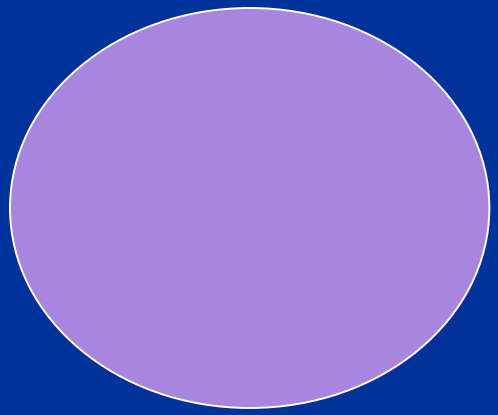
Program Plan

- **B. Program Plan**
  - **b. Program Faculty**
    - Mentors' research, funding, research training experience, and collaborations
    - Criteria for selecting Mentors
    - Tables 2, 3, 4, and 5

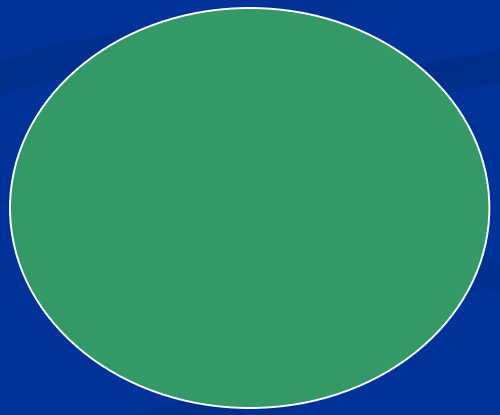
Research Area #1



Research Area #2



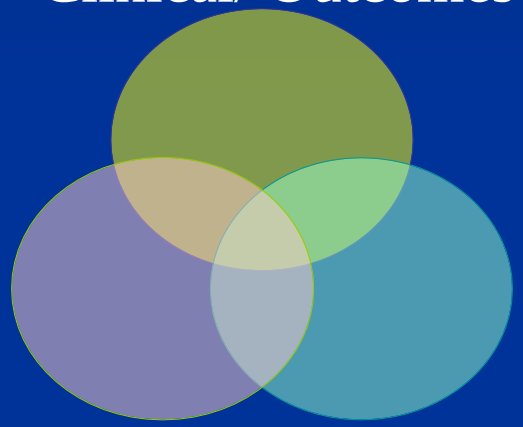
Research Area 3




Research Area #1
Research Area #2
Research Area #3

Integrated Themes

Clinical/ Outcomes



Cardiovascular biology

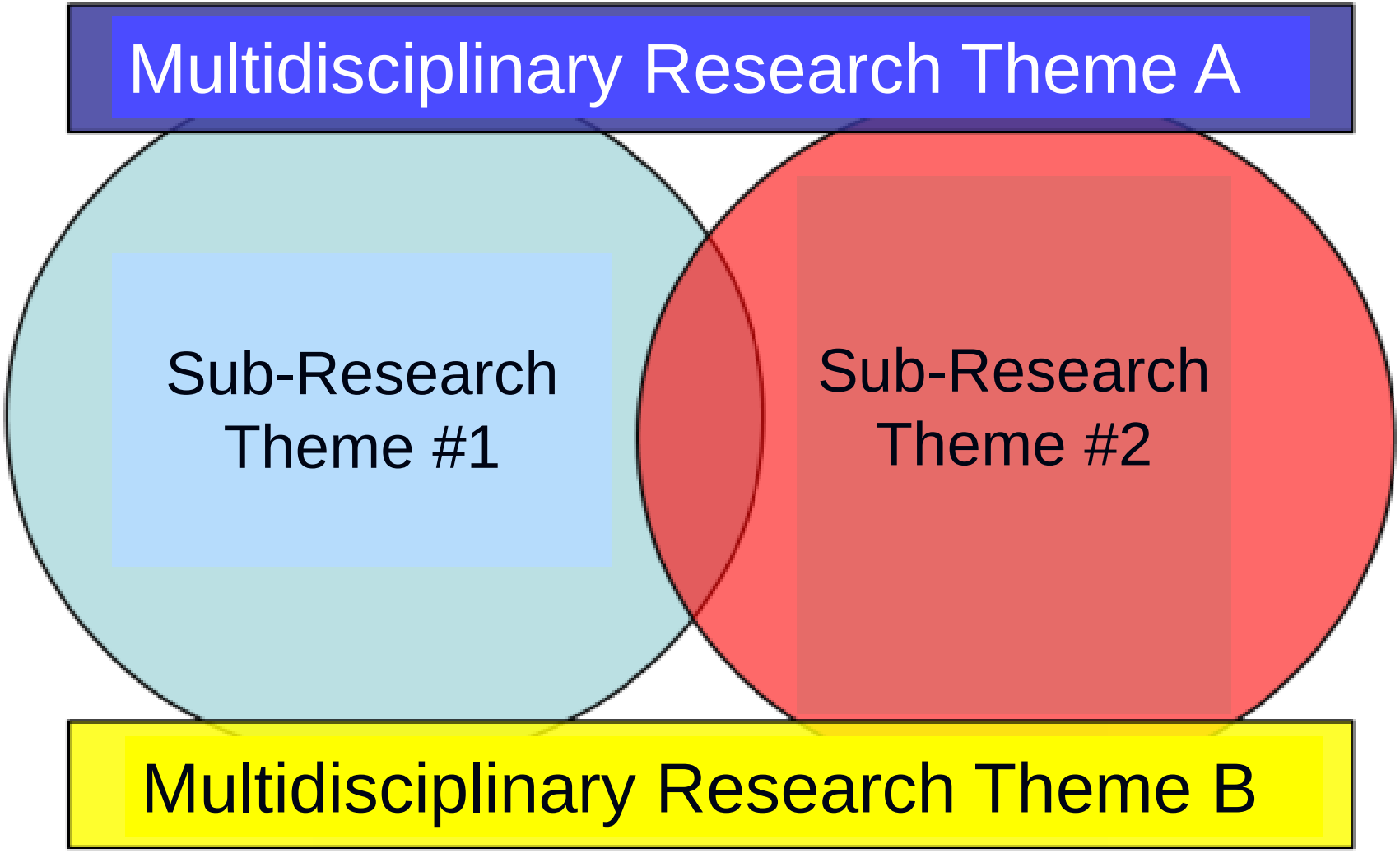
Immunology/ Genomics

Non-Integrated Themes

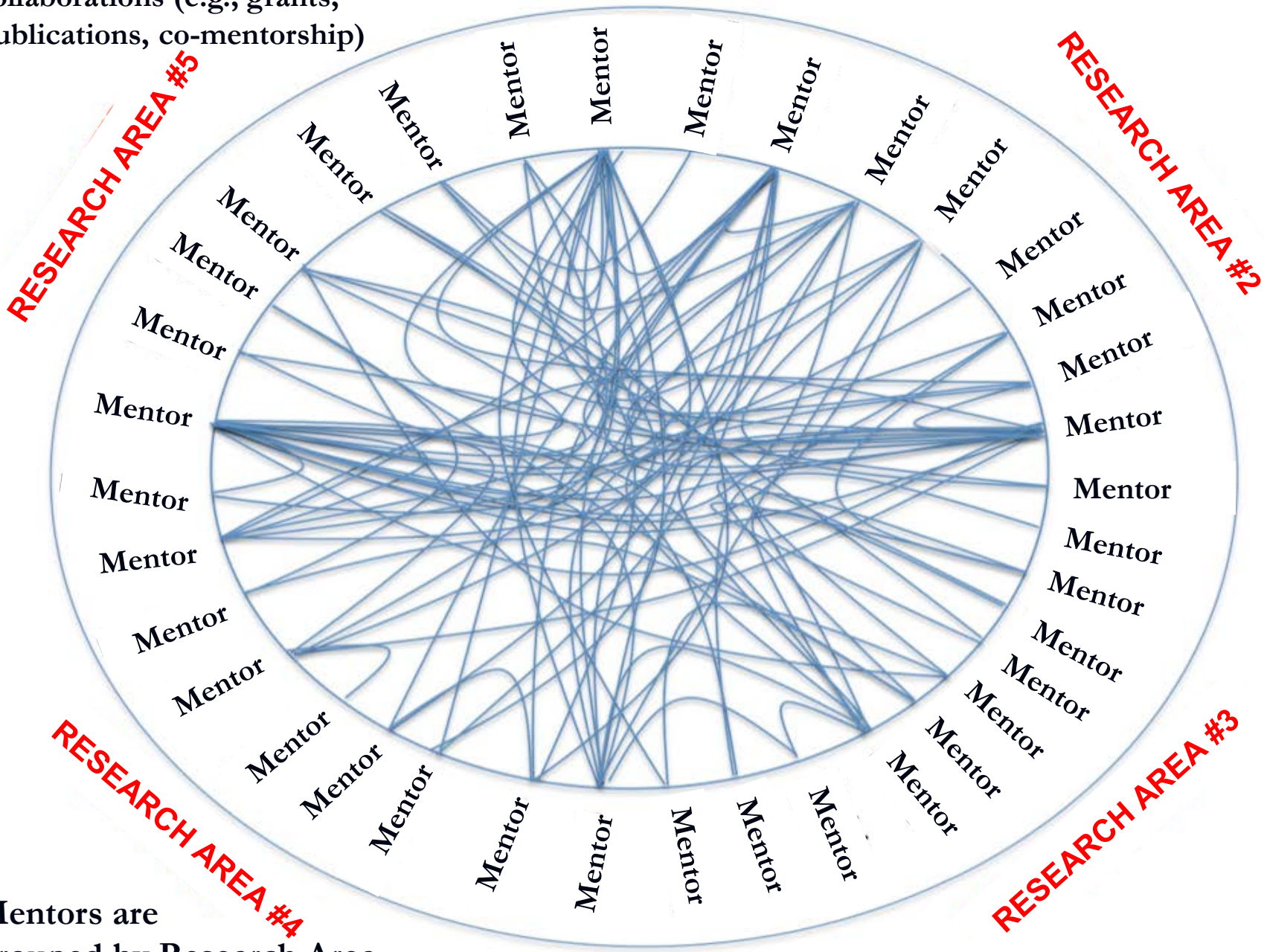
Clinical/ Outcomes

Cardiovascular biology

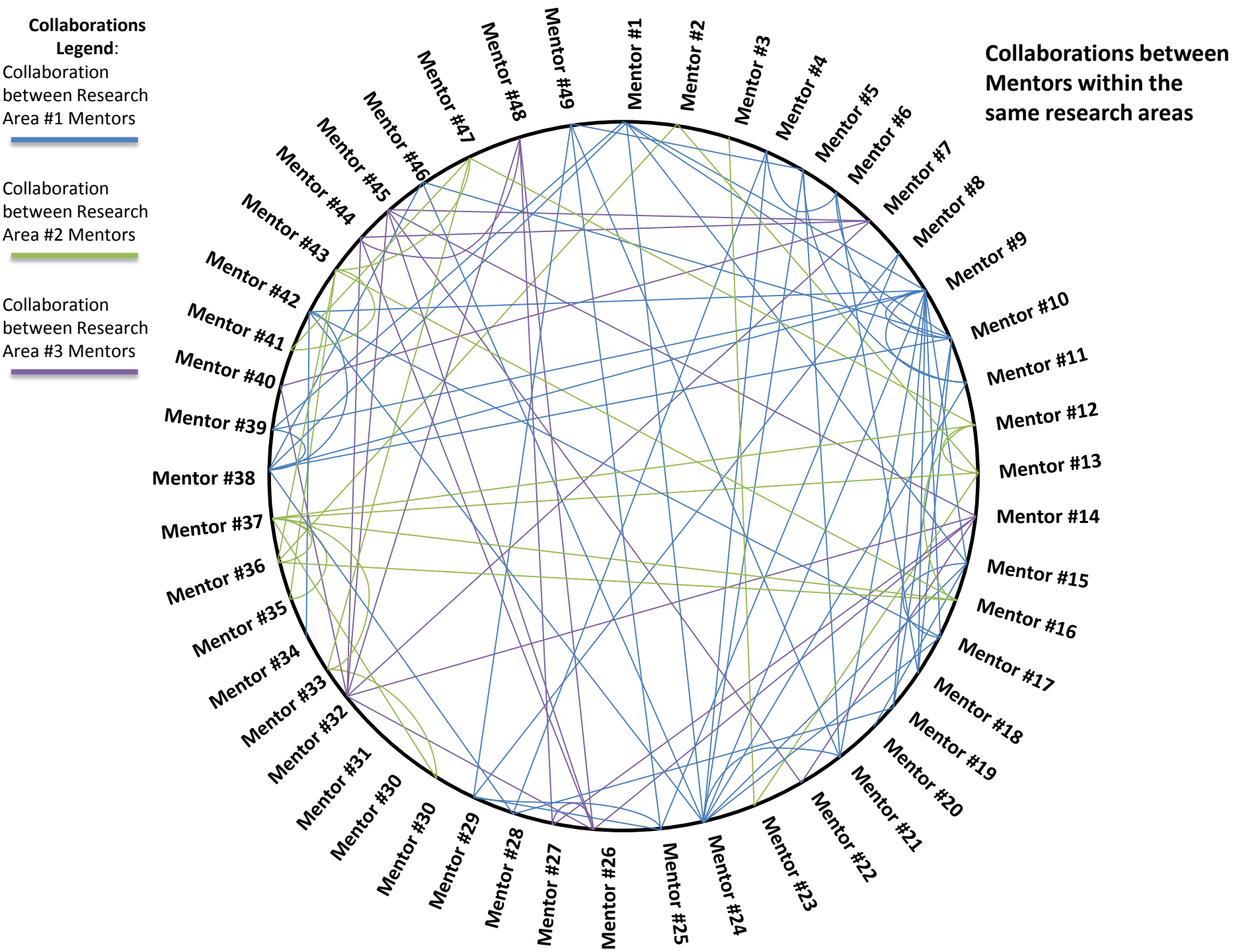
Immunology/ Genomics

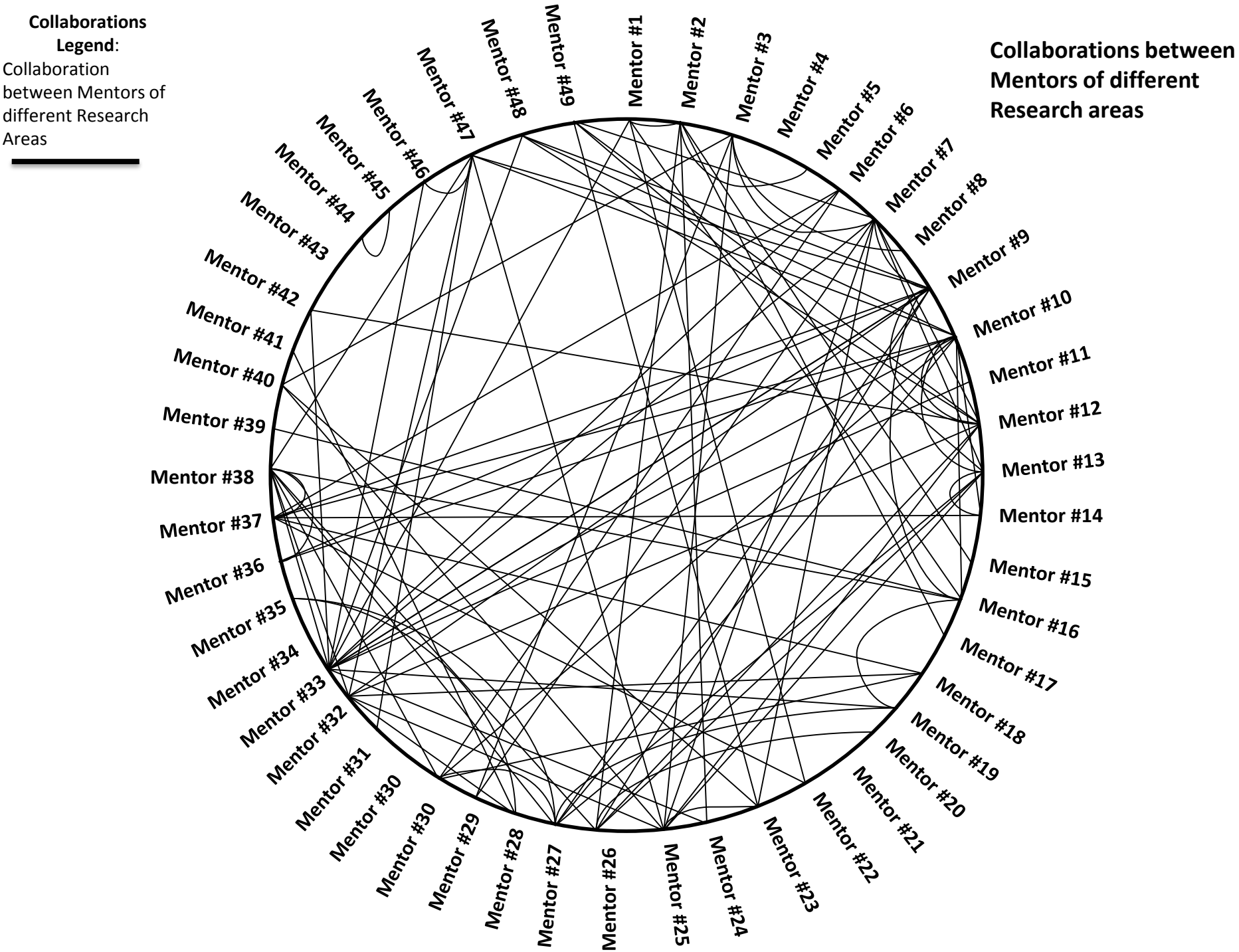

Multidisciplinary Research Theme A
Sub-Research Theme #1
Sub-Research Theme #2
Multidisciplinary Research Theme B

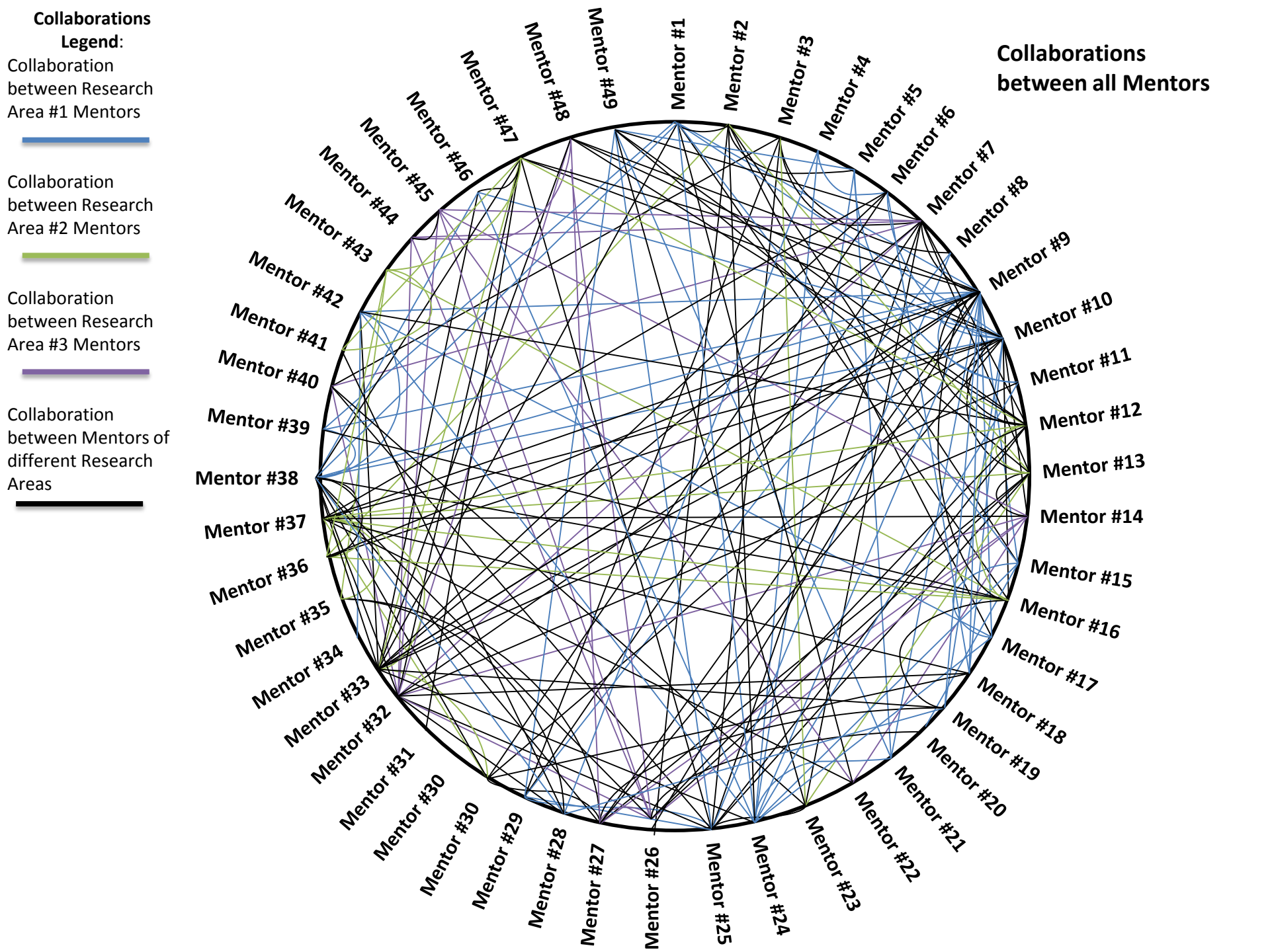
"Connecting lines" represent collaborations (e.g., grants, publications, co-mentorship)



Mentors are grouped by Research Area


Collaborations Legend:
Collaboration between Research Area #1 Mentors
Collaboration between Research Area #2 Mentors
Collaboration between Research Area #3 Mentors
Collaborations between Mentors within the same research areas
Mentor #1
Mentor #2
Mentor #3
Mentor #4
Mentor #5
Mentor #6
Mentor #7
Mentor #8
Mentor #9
Mentor #10
Mentor #11
Mentor #12
Mentor #13
Mentor #14
Mentor #15
Mentor #16
Mentor #17
Mentor #18
Mentor #19
Mentor #20
Mentor #21
Mentor #22
Mentor #23
Mentor #24
Mentor #25
Mentor #26
Mentor #27
Mentor #28
Mentor #29
Mentor #30
Mentor #30
Mentor #31
Mentor #32
Mentor #33
Mentor #34
Mentor #35
Mentor #36
Mentor #37
Mentor #38
Mentor #39
Mentor #40
Mentor #41
Mentor #42
Mentor #43
Mentor #44
Mentor #45
Mentor #46
Mentor #47
Mentor #48
Mentor #49


Collaborations Legend:
Collaboration between Mentors of different Research Areas
Collaborations between Mentors of different Research areas
Mentor #1
Mentor #2
Mentor #3
Mentor #4
Mentor #5
Mentor #6
Mentor #7
Mentor #8
Mentor #9
Mentor #10
Mentor #11
Mentor #12
Mentor #13
Mentor #14
Mentor #15
Mentor #16
Mentor #17
Mentor #18
Mentor #19
Mentor #20
Mentor #21
Mentor #22
Mentor #23
Mentor #24
Mentor #25
Mentor #26
Mentor #27
Mentor #28
Mentor #29
Mentor #30
Mentor #30
Mentor #31
Mentor #32
Mentor #33
Mentor #34
Mentor #35
Mentor #36
Mentor #37
Mentor #38
Mentor #39
Mentor #40
Mentor #41
Mentor #42
Mentor #43
Mentor #44
Mentor #45
Mentor #46
Mentor #47
Mentor #48
Mentor #49


Collaborations between all Mentors
Collaborations Legend:
Collaboration between Research Area #1 Mentors
Collaboration between Research Area #2 Mentors
Collaboration between Research Area #3 Mentors
Collaboration between Mentors of different Research Areas
Mentor #1
Mentor #2
Mentor #3
Mentor #4
Mentor #5
Mentor #6
Mentor #7
Mentor #8
Mentor #9
Mentor #10
Mentor #11
Mentor #12
Mentor #13
Mentor #14
Mentor #15
Mentor #16
Mentor #17
Mentor #18
Mentor #19
Mentor #20
Mentor #21
Mentor #22
Mentor #23
Mentor #24
Mentor #25
Mentor #26
Mentor #27
Mentor #28
Mentor #29
Mentor #30
Mentor #30
Mentor #31
Mentor #32
Mentor #33
Mentor #34
Mentor #35
Mentor #36
Mentor #37
Mentor #38
Mentor #39
Mentor #40
Mentor #41
Mentor #42
Mentor #43
Mentor #44
Mentor #45
Mentor #46
Mentor #47
Mentor #48
Mentor #49

Program Plan

- **B. Program Plan**
  - **c. Proposed Training**
    - Trainees: No., Level(s), Academic/Research Background
    - Research opportunities
    - How Trainees select Mentors and research areas
    - Oversight of Trainees: Monitoring and Evaluation
    - Degree programs, didactics, courses, seminars, workshops, journal clubs (provide examples)
    - Length of training (e.g., 2 years for post-docs)

Program Plan

- **B. Program Plan**
  - **d. Training Program Evaluation**
    - Input from current and former Trainees
    - Evaluation metrics
    - Plans to collect outcome data on former Trainees' career progression (e.g., current positions, funding, publications)
    - Competitive renewal applications: Discuss outcome data results

Program Plan

- **B. Program Plan**
  - **e. Trainee Candidates**
    - Size and qualifications of applicant pool
    - Recruitment activities
    - Process and criteria to select Trainees to be funded by the grant
    - Table 6

Program Plan

- **B. Program Plan**
  - **<u>f. Institutional Environment and Commitment to Training</u>**
    - Document (Letter of Support) and describe institutional support (e.g., PI's effort, space, support of additional Trainees, stipend supplementation)
    - Relationship of proposed training program to any similar programs at the applicant institution
    - Proposed training program should have its own identity, but still integrated into the research and research training/academic activities of the institution

Program Plan

- **B. Program Plan**
  - **g. Qualifications of Trainee Candidates and Admissions and Completion Records**
    - Recruitment and retention of trainees
    - Competitiveness of the selection process
    - "Quality and Quantity" of the applicant pool
    - Justify number of requested funded "slots"
    - Tables 6, 7, and 8

Program Plan

- **C. Recruitment Plan to Enhance Diversity**
  - History and Achievements
    - Describe past record
  - Proposed Plans
    - Identification and recruitment efforts
      - Involvement of Program leadership and Mentors
  - Critical to include Training Program's efforts, not just institutional policies and efforts
  - Tables 6 and 7

Program Plan

- **C. Recruitment Plan to Enhance Diversity**
  - **A:** "Individuals from racial and ethnic groups that have been shown… to be underrepresented in health-related sciences… Blacks or African Americans, Hispanics or Latinos, American Indians or Alaska Natives, and Native Hawaiians and other Pacific Islanders.
  - **B:** "Individuals with disabilities, who are defined as those with a physical or mental impairment that substantially limits one or more major life activities…"

https://grants.nih.gov/grants/policy/nihgps/HTML5/section_11/11.3_institutional_research_training_grants.htm#Applicat

Program Plan

- **C. Recruitment Plan to Enhance Diversity**
  - C: Individuals from disadvantaged backgrounds:
    - **C1:** "Individuals who come from a family with an annual income below established low-income thresholds."
    - **C2:** "Individuals who come from an educational environment [that has] inhibited the individual from obtaining the knowledge, skills, and abilities necessary to develop and participate in a research career."
    - **C1** and **C2:** "applicable to programs focused on high school and undergraduate candidates"

https://grants.nih.gov/grants/policy/nihgps/HTML5/section_11/11.3_institutional_research_training_grants.htm#Applicat

Training Program Section

2. * Program Plan		Add Attachment
3. Plan for Instruction in the Responsible Conduct of Research		Add Attachment
4. Plan for Instruction in Methods for Enhancing Reproducibility		Add Attachment
5. Multiple PD/PI Leadership Plan (if applicable)		Add Attachment
6. Progress Report (for Renewal applications)		Add Attachment

Faculty, Trainees and Training Record Section

7. Participating Faculty Biosketches		Add Attachment
8. Letters of Support		Add Attachment
9. Data Tables		Add Attachment

Tables

- Data on Participating Depts./Centers
- Data on Mentors
- Data on Trainee Applicants and Entrants
- Data on TG-Supported Trainees

Tables

- **Data on Participating Depts./Centers**
  - Training environment (Table 1)
  - "Critical Mass" of faculty
  - Distribution of scientific disciplines
  - # of Faculty
  - # of Training Program participating faculty
  - # of Pre- and Postdoctoral Trainees
  - # of TGE Pre- and Postdoctoral Trainees

Tables

- **Data on Mentors**
  - Distribution and Mentoring Record (Table 2)
    - Distribution: Rank (title), Dept./Center, Degrees, Research interests
    - Mentoring Record for Pre- and Postdoctral Trainees: # Current Trainees, # of Trainees who completed training, # who continued in research-related careers
  - Current other training grants (Table 3)
    - Overlap with other training programs?
  - Extramural research support (Table 4)
    - Adequate for trainee's research costs?
  - Publication track record of Trainees (Table 5)
    - Measure of trainees' productivity ("quality and quantity")

Tables

- **Data on Applicants and Entrants (Table 6)**
  - "Quality and Quantity" of applicant pool
  - Selectivity and Competitiveness of recruitment
  - Determination of the no. of "slots" to be awarded
  - Counts
    - # of Total applicants, # of TGE applicants, # of Entrants, # of TGE Entrants, # of TGE Entrants appointed to TG [by doctoral degree for post-docs]
  - Characteristics
    - GPA of applicants and entrants [pre-docs]
    - Entrants: Previous research experience (months) [pre-dos]
    - # of publications/# of 1st author publications [post-docs]
    - Entrants: Previous institutions, % from underrepresented groups, % with disability

Tables

- **Data on TG-Supported Trainees**
  - TG Appointments (Table 7-renewals)
    - No of "Slots": Awarded and Appointed
    - Best to avoid "unfilled slots"
  - Program Outcomes (Table 8)
    - Individual Pre-and Post-docs:
      - During training: Mentor, Funding, Degrees received, Research topic
      - Post training: Initial and current positions, Subsequent grant support
    - Statistics: % of Pre-docs receiving Ph.D. and average time to degree

- 1. Introduction
- 2. Program Plan
- 3. RCR
- 4. Enhancing Reproducibility
- 5. Multiple PI
- 6. Progress Report
- 7. Biosketches
- 8. Letters of Support
- 9. Tables
- 10. Human Subjects
- 11. Data Safety Monitoring Plan
- 12. Veterbrate Animals
- 13. Select Agent Research
- 14. Consortiums
- 15. Appendix
- Bibliography & References Cited
- Budget
- Equipment
- Facilities & Other Resources
- IDP - Individual Development Plan
- Mentor Research Interests
- Project Narrative
- Project Summary-Abstract

7. Biosketches

- Biosketches - Key Personnel
- Individual participating faculty biosketches

9. Tables

- Table 1 Participating Depts
- Table 2 List of Faculty
- Table 3 Training Grant Support
- Table 4 Other Support
- Table 5 Publications
- Table 6 Applicants and Entrants
- Table 7 TG Appointments
- Table 8 Program Outcomes
- All Training Grant Data Tables - Instructions and Samples

9. Table Sub-folder

- Table 1 - Blank
- Table 1 - Instructions and Sample

Facilities and Other Resources

- CU-CUMC Facilities
- Mentor Research Facilities

T32 Training Grant Faculty Information Tracking Table										
Mentor	e-mail address	Agreed	Biosketch	Research Paragraph	Research Facilities	Table 2 Trainees	Table 3 TG Support	Table 4 Funding	Table 5 Pubs	Collab
							from SPA			
							from SPA			
							from SPA			
							from SPA			
							from SPA			
							from SPA			
							from SPA			
							from SPA			
							from SPA			
							from SPA			
							from SPA			
							from SPA			
							from SPA			
							from SPA			

SPA: Sponsored Projects Administration (grants office)

NIH Resources for Training Grant Applications

- Program Announcements for NIH Institutional Training Grants (e.g., T32, T35)
  https://researchtraining.nih.gov/programs/training-grants
- NIH Research Training and Career Development Programs
  https://researchtraining.nih.gov/
- Application Page Limits
  https://grants.nih.gov/grants/how-to-apply-application-guide/format-and-write/page-limits.htm

NIH Resources for Training Grant Applications

- NIH Biosketch Format Pages, Instructions and Samples
  http://grants.nih.gov/grants/forms/biosketch.htm
- Instruction in the Responsible Conduct of Research
  https://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html

NIH Resources for Training Grant Applications

- Funded Training Grants – NIH Reporter
  http://projectreporter.nih.gov/reporter.cfm
- Application and Award Information-Funding Facts
  http://report.nih.gov/fundingfacts/index.cfm
- NIH Success Rates
  https://report.nih.gov/success_rates/index.aspx
- NIH Data Book
  https://report.nih.gov/nihdatabook/index.aspx

Good Luck!