WORKSHOP ON TRAINING GRANT APPLICATIONS
June 27, 2019

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OBJECTIVES

1. Consider the scope, size and goals of your proposed training programs.

2. Understand the components and preparation of a competitive application for an institutional training grant.

3. Identify and access various resources, tools and expertise to allow efficient completion of a training grant application.
Figure 3 Translational workforce development governance, working groups and programs
* CTSA-supported programs
I. Training Grant Application Workshop
II. National Research Service Award (PA-16-015)
III. Current training grants at UF HSC
IV. Library of T32 applications and critiques
V. Training Grant Application Timeline
VI. Identifying Mentors at UF HSC
VII. Resources (Boiler Plate) (Updated 6/18)
   • CTSI Facilities and Resources (36)
   • UF Colleges (16)
   • Other Facilities and Resources Affiliated with UF (60)
VIII. Certificate Programs
IX. Plan for Instruction in Responsible Conduct of Research
X. Marketing of UF Training Programs
XI. Recruitment and Retention Plan to Enhance Diversity
XII. Institutional Commitment Letter
XIII. Health Insurance Coverage
XIV. Assistance for Training Grant Administrators
XV. Stipends, Tuition/Fees, etc. (NOT-OD-19-036)
XVI. Data Tables Required for T32
XVII. Follow-up and Tracking of T32 Appointees
XVIII. Acknowledgement of CTSA grant support on papers and proposals
WHY APPLY FOR AN INSTITUTIONAL TRAINING GRANT?

• Address the needs for the scientific workforce.
• Support graduate students and postdoctoral fellows to work in your research program.
• Organize “academic communities” around a topic of interest.
• Develop curricula, instructional materials, degree programs, and continuing educational sessions (e.g. seminars).
• Enact recruitment and retention strategies to assure enrollment of high quality, diverse trainees.
CHECKLIST: WHEN TO WRITE A T32 APPLICATION

- Unmet need for trainees or training in your subject area (including private sector)
- Program Director with interest, NIH funding (usually), and track record of training
- NIH-funded Mentors in subject area
- Source of diverse trainee candidates
- Facilities to support trainees
- Department/College support for a Training Program
Federal government, NSF and NIH in particular, is the funding agency for most institutional training programs

- Foundations and Voluntary Health Agencies fund many individual scholarships and fellowships
- Limited number of nonfederal funders of training programs (e.g. HHMI)

NIH funds the Ruth L. Kirstein National Research Service Awards (NRSA) Institutional Training Grants with an Omnibus Program Announcement* (Parent T32; PA-18-403)

- Most NRSAs are reviewed by individual Institutes/Centers
- Requirements/Rules may vary by IC!
  - Number of submissions per year (often only one)
  - Receipt dates
  - Other T Awards= T34 (PA-19-219); T35 (PA-14-404); T90

* See T Kiosk at http://grants.nih.gov/training/T_Table.htm
<table>
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<th>Types of Institutional Research Training Grants</th>
<th>Example</th>
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<td>Pre-college, undergraduate training (pipeline)</td>
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Awards for Individuals with a Health-Professional Doctorate (e.g., MD)

- Institutional Training Grants (T32)
- Short-Term Training Grant (R25)
- Medical School
- Internship/Residency
- Specialty
- Postdoctoral Fellowships (F32)
- Senior Fellowships (F33)
- Scientist Development Program (K12)
- Mentored Clinical Scientist Development Award (K08)
- Independent Investigator
- Midcareer Investigator in Patient-Oriented Research (K24)
- Career Enhancement Award Stem Cells (K18)
- Mentored Patient-Oriented Research CDA (K23)
- Diversity Supplement
Awards for Individuals with a Research Doctorate (e.g., PhD)

Predoctoral Fellowships (F31)

MARC COR (T34)

College

Graduate School & Medical School

Postdoctoral Fellowships (F32)

Senior Fellowships (F33)

Institutional Training Grants (T32)

Postdoctoral

Independent Investigator

Career Transition Award (K22)

Career Enhancement Award Stem Cells (K18)

Independent Scientist Award (K02)

Mentored Research Scientist Development Award (K01)

Diversity Supplement

BRTPUG Program
Undergrads, post-bac, & graduates

R25 Undergrads
TRAINING GRANT TIMELINE

Activity

Conceptualize the training program
Obtain instructions and application
Identify PI/PD
Contact Program Officer
Review Funding Agency’s Portfolio
Confirm institutional support
Identify Key Personnel and Mentors
Identify courses and degree programs
Identify responsible conduct of research instruction
Get input from educational development/evaluators
Obtain Biosketches
Develop Budget and Justification*
Obtain Letters of Support
Develop Tables I-X (XI – XII for renewals)
Organize resources pages
Write draft of proposal
Review of proposals by advisors
Write and review abstract
Review final application

*Identify >$500K budget at >6 week phase
Administrative Sections of Training Grant

• All forms from SF424
  – Face Page
  – Abstract
  – Training Sites
  – Key Personnel
  – Table of Contents
  – Detailed Budgets
    • Initial Period
    • Entire Period (Calculate each year to verify <$500K)
• Biographical Sketch of Program Director
• Resources
• Appendices (Training-related syllabi, teaching materials, etc.)

* NOT-OD-11-008
Training Grant Budgets

• Stipends (NOT-OD-19-036)
  – Predoctoral (Per trainee per year by NIH up to 5 years of support)
  – Postdoctoral (Per trainee based on # of years since receipt of doctoral degree as set by NIH, up to 3 years of support), compliant with FLSA

• Tuition and Fees (NOT-OD-10-073)
  – Predoctoral: 60% of tuition and fees up to $16K/year ($21K for dual degree students)
  – Postdoctoral: 60% of requested tuition up to cap of $4.5K/year or $16K/year if enrolled in degree-granting program

• Trainee Travel (Usually one trip per year)

• Training-related Expenses (NOT-OD-19-036)
  – Supports training plan (health insurance, books, computers and software, consultants, data) ($4,200 for predoc, $10,850 for postdoc)

• Indirect Costs (8%)
Displacement of stipend and tuition from R01
  Predoctoral ($40,000/yr/trainee)
  Postdoctoral ($60,000/yr/trainee)
Support for PI (Director 10% FTE) (Coordinator up to 20% FTE) from Department?
Tuition for predoctoral fellows ($16K/yr.)
  Degree programs for postdoctoral fellows
Institutional support for shared services
  Educational Development and Evaluation
  Follow-up of trainees
Grant application support (e.g. Tables)
Number of Positions To Request

- Pre- vs. Postdoctoral
- Preapproval (>6 weeks) required for budgets > $500K per year for any one year of the grant.
- ? Too Many
  - Can you recruit high quality trainees?
  - Can the courses, mentors, etc. accommodate this number of trainees?
- ? Too Few
  - Is there a “critical mass” of trainees?
  - Is the number of trainees sufficient to have journal clubs, seminars, etc.?
Biographical Sketch of Program Director/Principal Investigator

• Personal Statement (summary of description in body of application)
• Role as PD/PI including % effort and leadership activities
• Track record in research
• Track record in administration
• Track record in training
• Honors and Offices: Training awards
• Publications: Related to topic of training grant
• Other support: Research and training support (e.g. prior training grants)
Resources
(Updated June 2018)

CTSI Facilities and Resources (N=36)
   Educational Programs
   Cores

UF Colleges (N=16)

Other Facilities (N=60)
   Animal Care Services
   Centers/Institutes
   Departments
   Information Systems
   Institutional Review Boards
   Health Science Center Library
   Research Administration
   Sid Martin Incubator
Research Training Program Plan

- Background/Introduction/Specific Aims*
- Program Plan
  - Program Administration*
  - Program Faculty*
  - Proposed Training*
  - Evaluation*
  - Trainee Candidates*
  - Institutional Environment and Commitment*
- Recruitment and Retention Plan to Enhance Diversity*
- Plan for Responsible Conduct of Research (3 page limit)

*Part of 25 page limit on SF 424 form pages.
Instruction in Responsible Conduct of Research

- **Course:** Responsible Conduct of Biomedical Research (GMS 7877)
- **Human Subject Protection Program Certification**
- **Research with Vertebrate Animals (IACUC)**
- **Workshops**
  - Recruitment and Retention of Research Subjects
  - Research Program Administration
- **Continuing Education:** Regular discussions
- **Integration of ethics and integrity issues in didactic coursework (e.g. Grant Writing)**
Instruction in Methods for Enhancing Reproducibility

• T Team Advising Rigor Training Workgroup (McCormack, Rethlefsen, Marsiske, and T Team members)

• Didactic courses in the Graduate Curriculum
  – GMS 7877 “Responsible Conduct of Biomedical Research” (McCormack)
  – GMS 6848 “Ensuring Rigor and Reproducibility in Clinical and Translational Research” (M. Gurka)
    • One credit online course offered in summer

• Other modules in individual graduate and professional schools’ programs

• Module in T Writers’ Toolkit
Background

• Overall Goals of the Program
• Specific Aims
  – Training Program
    • Didactic components
    • Career development opportunities
    • Mentored research experiences
  – Career Development Plan
  – Recruitment and Retention
  – Evaluation
• Rationale (Premises underpinning the training)
• Current Research Training at the Institution
• Research Training at Participating Organizations
• Relation of the Training Program to Other Training Activities
Objectives of NRSA Institutional Research Training Grants (PA-18-403)

1. A strong foundation in research design, methods, and analytic techniques.
2. Enhanced ability to conceptualize and think through research problems with increasing independence.
3. Experience conducting research using state-of-the-art methods as well as presenting and publishing their research findings.
4. Interaction with members of the scientific community at appropriate scientific meetings and workshops.
5. Enhancement of the trainee’s understanding of the health-related sciences and the relationship of their research training to health and disease.
Organization and Administration of Training Programs

• Principal Investigator/Program Director
  – Research Experience
  – Training Experience
  – Administrative Experience
  – Multiple PIs
• Internal Executive Committee
• External Advisory Committee
• Didactic Core
• Mentors
• Career Development Program
• Evaluation
Training Program Faculty

• Mentors versus Preceptors
• Organization by Disciplines:
  Research Clusters
  – Breadth: Number of disciplines involved in the training
  – Depth: Number of faculty in each discipline
• Biosketches
  – PI & Key Personnel to SF424 file
  – Non-key faculty and mentors
    • Research Training Program Plan Form (SF424)
    • Do not require personal statement
• Mentor information needed ~2+ months in advance to prepare Tables.
Training Grant Advisory Committees

• Internal Executive Committee
  - Specific overview duties (e.g. Recruitment/Selection, Mentor Review, Trainee Progress)
  - Meeting quarterly or for specific duties

• External Advisory Committee
  – Annual Overview
  – Opportunities for engagement of partnering institutions.
Institutional Commitment for Institutional Training Grants

• Required, reviewers look for more than the minimum
• Signed letter on institutional letterhead from responsible official (Chair, Dean, Research Administrator)
• Description of applicant institution’s commitment
  - PD/PI time, and salary to direct the program (usually 10% effort)
  - Program faculty and staff (e.g. coordinator, usually at least 20% effort)
  - Stipend, tuition support needed beyond that provided by training grant.
UF and UF Health Institutional Commitment to Institutional Training Grants

1. Funding of tuition required above that provided by the T32 Award.*
2. PD/PI and coordinator time and effort.*
3. Space for predoctoral and postdoctoral students.*
4. Support for 5% effort faculty-level Educational Development specialists for curriculum development and evaluation plan.**
5. Centralized office for follow-up of NIH-funded trainees.**
6. Access to CTSI services, pilot studies, vouchers, etc.

*Department/College   **HSC and UF CTSA Program
Mentored Research Experience

- Definition of a mentor: faculty with >1 years of experience in training and current NIH funding of research (N>284 at UF HSC)
- Mentor Development: Mentors vs. preceptors
- Selection of a mentor/mentorial team
- Mentoring Plan: Frequency, duration, etc.
- Individual Development Plan (IDP) (NOT-OD-14-113)
- Oversight of mentoring and career development plans (e.g. PI/PD, Internal Executive Committee)
Didactic Curriculum

• Driven by learning objectives and competencies to be acquired.
• Degree or certificate as recognized credentials.
• Full time vs. Part time.
• Criteria for successful completion.
• Identify instructors, synopsis.
• Perpetual conflict: lab time vs. class time.
• For postdocs, Certificate as alternative to MS degree.
Trainee Candidates

- Description of applicant pool

- Qualification and criteria for acceptance
  - Disciplines/prior training
  - Transcripts
  - Letters of recommendation
  - Standardized test scores (GRE*, MCAT)

- Process of review and selection

*GRE under fire as legitimate qualification.
Recruitment and Retention Plan to Enhance Diversity

- UF/UF HSC/CTSI Programs in Toolkit
- Track Record
  - Underrepresented Racial and Ethnic Groups
  - Disability Groups
- Pipeline Programs
- Plan
  - Website
  - Advertisements
  - Personal efforts by Program Director/Faculty
  - Formal collaboration with minority institutions
  - Recruiting consultation service

*Do not rely solely on institutional efforts
Progress Report

- Accomplishments of the Program to date
- Use of training-related expenses
- Lack of completion of planned duration of training
- Synopsis of trainees’ programs
  - Didactic coursework/degree program
  - Research project/Mentors
  - Publications (PubMed)
  - Current position (if graduated)
REVIEW OF T32 APPLICATIONS

Presubmission

• Allow 2+ weeks prior to submission
• Identify faculty with T32 experience
  - Current PI/PD of T32
  - Recent T32 Reviewers

Post review

• Communicate review scores and critiques to OBRCD
• If not funded, schedule discussion of revision, resubmission.
Institutional Training Grants at UF HSC

1. Strategically important, large DC-carrying NIH grants
2. Enhanced institutional support
   - Tuition supplement, no RCM
   - Website for resource boiler plate, biosketches, courses
   - Doctoral-level—expertise in curricular design, educational evaluation
   - Assistance with table development, ? Follow-up of trainees.
3. Grant-writing help (course, application review)