What’s New with NIH Training Grants

Wayne T. McCormack, PhD

room CG-72K, phone 294-8334, mccormac@ufl.edu
Agenda

- 8:30 am **Welcome and Workshop Goals**
  - Tom Pearson

- 8:50 am **Preparing Your Training Grant Application**
  - Tom Pearson

- 10:00 am **Coffee Break**

- 10:10 am **What’s New with NIH Training Grants**
  - Wayne McCormack

- 10:25 am **The Application Timeline and Resources to Support Your T32 Application**
  - Audrey Natwick, Yulia Strekalova & Wayne McCormack
    - UF Training Grant History
    - Wayne
    - T32 Toolkit & T Team
    - Wayne
    - Application Timeline
    - Audrey
    - Data Tables
    - Audrey
    - Evaluation Plan
    - Yulia
    - Trainee & Alumni Tracking
    - Audrey
    - Website Generation & Management
    - Audrey
    - Career & Professional Development Programs
    - Wayne
    - Team Science
    - Wayne

- 11:45 am **Wrap-up Discussion**

- 11:55 pm **Adjourn**
What’s New with NIH Training Grants

- NIGMS – new focus on trainee development
- Rigor & Reproducibility Training Plan
- Required Use of the xTRACT System to Prepare Data Tables for Training Grant Research Performance Progress Reports in FY 2020
New NIGMS Institutional Predoctoral Training Grant Funding Opportunity Announcement

Posted by Dr. Alison Gammie, Dr. Kenneth Gibbs and Dr. Shiva Singh on October 19, 2017
Post a Comment | No Comments ↓

We’ve just released a new training funding opportunity announcement (FOA) specifically tailored for predoctoral graduate programs in the basic biomedical sciences. Through this FOA, we intend to encourage changes in biomedical graduate training that allow it to keep pace with the rapid evolution of the research enterprise, which is increasingly complex, quantitative, interdisciplinary, and collaborative.

The overarching objective of this new predoctoral T32 training program is to develop a diverse pool of well-trained scientists who have the following:

- A broad understanding across biomedical disciplines, and the skills to independently acquire the knowledge needed to advance their chosen field.
- The ability to think critically, independently, and to identify important biomedical research questions and approaches that push forward the boundaries of their areas of study.
- A strong foundation in scientific reasoning, rigorous research design, experimental methods, quantitative and computational approaches, as well as data analysis and interpretation.
- A commitment to approaching and conducting biomedical research responsibly and with integrity.
- Experience initiating, conducting, interpreting, and presenting rigorous and reproducible biomedical research with increasing self-direction.
- The ability to work effectively in teams with colleagues from a variety of cultural and scientific backgrounds, and to promote inclusive and supportive scientific research environments.
Looking Ahead: Predoctoral T32 NIGMS is committed to supporting predoctoral training

Why is this important? The other institutes are watching the NIGMS pilot program!

Data: FY15 QVR/FTK Predoctoral T32, Parent F31 (PA-11-111, 14-147), Diversity F31 (PA-11-112, 14-148); Kenny Gibbs

TWD PD Meeting June 2017

From “Overview of NIGMS Training and Diversity Program” presented by Allison Gammie at the NIGMS Training, Workforce Development and Diversity Program Directors Meeting, June 2017
NEW NIGMS-specific funding announcement

• Emphasize trainee development.
• Focus on skills development, rigor & reproducibility, diversity & inclusion, and responsible conduct.
• Address conflicts in the incentive structure of the research enterprise.
• Encourage the use of evidence-based, innovative educational practices.
• Require the collection and dissemination of data on the success/failure of educational interventions.
• Emphasize improvements in career preparation (broadly defined) and dissemination of career outcomes on publicly available sites.

From “Overview of NIGMS Training and Diversity Program” presented by Allison Gammie at the NIGMS Training, Workforce Development and Diversity Program Directors Meeting, June 2017
Proposed *Trainee Focused Objectives: Technical/Operational Skills*

- Broad understanding across biomedical disciplines, and the skills to independently acquire the knowledge needed to advance their chosen field
- The ability to think critically, independently and to identify important biomedical research questions and approaches that push forward the boundaries of their area of study

From “Overview of NIGMS Training and Diversity Program” presented by Allison Gammie at the NIGMS Training, Workforce Development and Diversity Program Directors Meeting, June 2017
Proposed *Trainee* Focused Objectives: Technical/Operational Skills

- A strong foundation in rigorous research design, experimental methods, quantitative literacy & reasoning skills, data analysis & interpretation
- Experience initiating, conducting, interpreting, and presenting rigorous and reproducible biomedical research with increasing self-direction

From “Overview of NIGMS Training and Diversity Program” presented by Allison Gammie at the NIGMS Training, Workforce Development and Diversity Program Directors Meeting, June 2017
Proposed *Trainee* Focused Objectives: Professional Skills

- The ability to work effectively in teams with colleagues from diverse cultural and disciplinary backgrounds, and to promote an inclusive and supportive scientific research environment
- The skills and opportunities to communicate scientific research methodology and findings to a wide variety of audiences (e.g., discipline-specific, across disciplines, and the public)
- The knowledge, professional skills and experiences required to identify and transition into productive careers in the biomedical research workforce

From “Overview of NIGMS Training and Diversity Program” presented by Allison Gammie at the NIGMS Training, Workforce Development and Diversity Program Directors Meeting, June 2017
Career Development

The GradDev calendar lists career development seminars sponsored by UF Health departments and graduate programs, with speakers from a variety of job sectors related to health sciences research.

To have your events included on the GradDev calendar, please contact Susan Gardner (sgard@uf.edu).

Career Interest Teams are informal groups designed to provide introductory experiences for graduate students and postdocs to become familiar with the various career options available for health sciences research. Participation is voluntary. Please feel free to attend any sessions you may be interested in.

Do you have a plan? Check out the Individual Development Plans page for more information about career and professional development planning while you are in grad school or a postdoc.

New Course: What is a Research Professional?

GMS5905 (3G27) What is a Research Professional (PDF)
Professional Skills

SAVE THE DATE! Second Fridays of each month, 12:00 noon – 1:00 pm (feel free to bring your lunch!) All sessions in room C1–15 unless otherwise noted

The “Learn – Discover – Lead” seminar series is designed to provide practical advice for PhD and dual degree scientists, who will be managing and leading research teams of their own. The target audience is graduate students, combined degree students, postdoctoral research trainees, and junior faculty, but everyone who may benefit from these seminars is welcome to attend!

To register for one of these seminars, click on the date.

<table>
<thead>
<tr>
<th>Date</th>
<th>Session Title</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>4/12/2019</td>
<td>Aligning Expectations for Mentoring</td>
<td>Roger Fillingim, PhD&lt;br&gt;Director, CTSI Mentor Academy; Director, Pain Research and Intervention Center of Excellence; Professor, College of Dentistry</td>
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<td>C2-33</td>
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### Professional Development

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<tr>
<th>Theme</th>
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<td>1 Communication</td>
<td>Effective Listening Skills</td>
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<tr>
<td>2 Mentoring</td>
<td>Mentoring &amp; Being Mentored</td>
</tr>
<tr>
<td>3 Res Management</td>
<td>Getting Funded</td>
</tr>
<tr>
<td>4 Leadership</td>
<td>Laboratory Leadership in Science</td>
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<tr>
<td>5 Collaboration</td>
<td>Introduction to the Science of Team Science</td>
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<tr>
<td>6 Teaching</td>
<td>How to Make Lectures More Effective</td>
</tr>
<tr>
<td>7 Communication</td>
<td>Effective Science Communication in the Internet Age</td>
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<tr>
<td>8 Mentoring</td>
<td>Diversity and Bias in Mentoring</td>
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<tr>
<td>9 Res Management</td>
<td>Staffing Your Laboratory</td>
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<td>10 Leadership</td>
<td>Embracing and Leading Change</td>
</tr>
<tr>
<td>11 Collaboration</td>
<td>Building a Research Team - Who and Why</td>
</tr>
<tr>
<td>12 Teaching</td>
<td>University Structure &amp; Planning for T&amp;P</td>
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<tr>
<td>13 Communication</td>
<td>Communicating with a Lay Audience</td>
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<tr>
<td>14 Mentoring</td>
<td>Intro to Mentoring and Giving Feedback</td>
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<tr>
<td>15 Res Management</td>
<td>Time &amp; Project Management</td>
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<td>16 Leadership</td>
<td>Team Dynamics and Leading Teams</td>
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<td>17 Collaboration</td>
<td>Writing a Collaboration Plan</td>
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<td>18 Teaching</td>
<td>The ABC’s of Grading</td>
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<td>19 Communication</td>
<td>Communication and Conflict Management</td>
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<tr>
<td>20 Mentoring</td>
<td>Coaching vs. Mentoring</td>
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<tr>
<td>21 Res Management</td>
<td>IP – Where Science Meets Business</td>
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<tr>
<td>22 Leadership</td>
<td>Understanding Behavioral Styles &amp; Leadership</td>
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<tr>
<td>23 Collaboration</td>
<td>Best Practices to Enhance Team Effectiveness</td>
</tr>
<tr>
<td>24 Teaching</td>
<td>Teaching as Scholarship</td>
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Methods & Technology  | Quantitative & Computational  | Acquiring Information, Experimental Design & Data Interpretation  | Management & Leadership  | Communication & Teamwork

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<thead>
<tr>
<th>Science PhD Core Competencies</th>
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<tr>
<td>1. Broad Conceptual Knowledge of a Scientific Discipline</td>
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<tr>
<td>2. Deep Knowledge of a Specific Field</td>
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<tr>
<td>3. Critical Thinking Skills</td>
</tr>
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<td>4. Experimental Skills</td>
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<td>5. Computational Skills</td>
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<tr>
<td>6. Collaboration and Team Science Skills</td>
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<tr>
<td>7. Responsible Conduct of Research and Ethics</td>
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<tr>
<td>8. Communication Skills</td>
</tr>
<tr>
<td>9. Leadership Skills</td>
</tr>
<tr>
<td>10. Survival Skills</td>
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</table>

# Competency-Based Assessment

<table>
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<tr>
<th><strong>Dreyfus &amp; Dreyfus Levels of Skill Acquisition</strong></th>
<th><strong>Novice</strong></th>
<th><strong>Advanced Beginner</strong></th>
<th><strong>Competent</strong></th>
<th><strong>Proficient</strong></th>
<th><strong>Expert</strong></th>
</tr>
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<tbody>
<tr>
<td>Rule-based behavior, limited, inflexible</td>
<td>Incorporates aspects of the situation</td>
<td>Acts consciously from long-term goals and plans</td>
<td>Sees situation as a whole and acts from personal conviction</td>
<td>Has intuitive understanding of situations, zooms in on central aspects</td>
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<tr>
<th><strong>Training Stages</strong></th>
<th><strong>Beginning PhD Student</strong></th>
<th><strong>Advanced PhD Student</strong></th>
<th><strong>PhD Graduate</strong></th>
<th><strong>Early Career Scientist or Postdoctoral Trainee</strong></th>
<th><strong>Science Professional</strong></th>
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<tr>
<th><strong>Example</strong></th>
<th><strong>MILESTONES</strong></th>
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<tr>
<td><strong>Critical Thinking Skills:</strong> Design a single experiment (answer questions, controls, etc.)</td>
<td><strong>Follow</strong> experimental protocols, <strong>seek</strong> help as needed, <strong>describe</strong> critical role of controls</td>
</tr>
<tr>
<td></td>
<td><strong>Plan</strong> experimental protocol; <strong>include</strong> relevant controls; <strong>choose</strong> appropriate methods; <strong>troubleshoot</strong> experimental problems</td>
</tr>
<tr>
<td></td>
<td><strong>Design and execute</strong> hypothesis-based experiments independently; <strong>evaluate</strong> protocols of others; <strong>predict</strong> range of experimental outcomes</td>
</tr>
<tr>
<td></td>
<td>Consistently <strong>design and execute</strong> experiments with appropriate controls; <strong>assess</strong> next steps; <strong>critique</strong> experiments of others</td>
</tr>
<tr>
<td></td>
<td><strong>Teach</strong> experimental design; <strong>guide</strong> others doing experiments</td>
</tr>
</tbody>
</table>

“Reproducibility” is a problem

Science has lost its way, at a big cost to humanity

Researchers are rewarded for splashy findings, not for double-checking accuracy. So many scientists looking for cures to diseases have been building on ideas that aren’t even true.

October 27, 2013 | Michael Hiltzik
Challenges to Ensuring Rigor and Transparency in Reporting Science: Underlying Issues

- Incentives
  - Publish or perish!
  - Grant support
- Impact factor
- Innovation
- Significance
- Poor training
- Novelty: No negative data

From “Sharing, Reproducibility, Replication – An NIH View”, presented at ACS National Meeting, March 24, 2015 by Philip E. Bourne, PhD, Associate Director for Data Science, NIH
The research incentive structure is sometimes in conflict with training - trainees vs. workforce?

From “Overview of NIGMS Training and Diversity Program” presented by Allison Gammie at the NIGMS Training, Workforce Development and Diversity Program Directors Meeting, June 2017
NIH plans to enhance reproducibility

Francis S. Collins and Lawrence A. Tabak discuss initiatives that the US National Institutes of Health is exploring to restore the self-correcting nature of preclinical research.

A growing chorus of concern, from scientists and laypeople, contends that the complex system for ensuring the reproducibility of biomedical research is failing and is in need of restructuring. As leaders of the US National Institutes of Health (NIH), we share this concern and here explore some of the significant interventions that we are planning.

Science has long been regarded as 'self-correcting', given that it is founded on the replication of prior work. Over the long term, that principle remains true. In the shorter term, however, a host of factors have hobbled the ability of today's researchers to compare and replicate others' findings.

Let's be clear: there is no evidence that reproducibility is abating. In 2011, the Office of the US Department of Health Services conducted a comprehensive review. Even if this represents the actual problem.
Solution:

NIH plans to enhance reproducibility

Francis S. Collins and Lawrence A. Tabak discuss initiatives that the US National Institutes of Health is exploring to restore the self-correcting nature of preclinical research.

\[ t = \frac{(\bar{x} - \mu)(s/\sqrt{n})}{S} \]

Consideration of sex and other biological variables

Scientific premise

Rigorous experimental design

Authentication of key resources

WHAT ARE THE UPDATES?

1. UPDATES TO RESEARCH STRATEGY GUIDANCE

The research strategy is where you discuss the significance, innovation, and approach of your research plan. Let's look at an R01, for example:

The new **research strategy** guidelines require that you:
- State the strengths and weaknesses of published research or preliminary data crucial to the support of your application
- Describe how your experimental design and methods will achieve robust and unbiased results
- Explain how biological variables, such as sex, are factored into research design and provide justification if only one sex is used

2. NEW ATTACHMENT FOR AUTHENTICATION OF KEY BIOLOGICAL AND/OR CHEMICAL RESOURCES

From now on, you must briefly describe methods to ensure the identity and validity of key biological and/or chemical resources used in the proposed studies.

These include, but are not limited to:

- **CELL LINES**
- **ANTIBODIES**
- **SPECIALTY CHEMICALS**
- **OTHER BIOLOGICS**

Standard laboratory reagents that are not expected to vary do not need to be included in the plan. Examples are buffers and other common biologicals or chemicals.

3. NEW REVIEWER GUIDELINES

Here are the additional criteria the reviewers will be asked to use:

- **Is there a strong scientific premise for the project?**
- **Have the investigators presented adequate plans to address relevant biological variables**, such as sex, for studies in vertebrate animals or human subjects?
- **Have the investigators presented strategies to ensure a robust and unbiased approach**, as appropriate for the work proposed?

Reviewers will also be asked to comment on that new attachment (see Update 2)!
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

Notice Number: NOT-OD-16-034

Key Dates
Release Date: December 17, 2015

Related Announcements
NOT-OD-16-081
NOT-OD-16-058
NOT-OD-15-102
NOT-OD-15-103
NOT-OD-16-004
NOT-OD-16-011
NOT-OD-16-012

Issued by
National Institutes of Health (NIH)
Agency for Healthcare Research and Quality (AHRQ)

Purpose
This Notice informs the biomedical and health services research communities of NIH and AHRQ plans to require formal instruction in scientific rigor and transparency to enhance reproducibility for all individuals supported by institutional training grants, institutional career development awards, or individual fellowships. Implementation of these requirements will be as early as FY 2017 but will not be in 2018 as indicated in NOT-OD-16-004. An extension of the anticipated implementation date is to ensure that applicants for NIH or AHRQ institutional training grants, institutional career development awards, and individual fellowships have time to access resources and develop substantive instructional plans to ensure that all supported individuals receive in-depth training in rigorous experimental design and data interpretation. NIH and AHRQ will issue a Notice at a future date to provide an updated timeline for implementing this requirement.
NIH Rigor and Reproducibility Training Modules

- Video modules with accompanying discussion materials
- Focus on integral components of reproducibility and rigor in the research endeavor, e.g., bias, blinding, and exclusion criteria

- Also: Online course “Pragmatic and Group Randomized Trials in Public Health and Medicine” by the NIH Office of Disease Prevention
  - Detailed guide to designing and analyzing group-randomized trials
  - Includes video presentations, slide sets, suggested reading materials, and guided activities

https://www.nih.gov/research-training/rigor-reproducibility/training
Plan for Instruction in Methods for Enhancing Reproducibility (max 3 pages)

- Describe how trainees will be instructed in principles important for enhancing research reproducibility
  - scientific premise
  - rigorous experimental design and data interpretation
  - relevant biological variables
  - authentication of key biological and/or chemical resources
  - data and material sharing
  - record keeping
  - transparency in reporting

- Describe how instruction strategies are:
  - well integrated into the overall curriculum
  - taught at multiple stages of trainee development in a variety of formats and contexts

- Describe how all program faculty will reiterate and augment key elements of methods for enhancing reproducibility when trainees are performing research in their laboratories
Required Use of the xTRACT System to Prepare Data Tables for Training Grant Research Performance Progress Reports in FY 2020

Notice Number: NOT-OD-19-108

Key Dates
Release Date: May 21, 2019

Related Announcements
NOT-OD-15-112
NOT-OD-16-007
NOT-OD-18-133

Issued by
National Institutes of Health (NIH)
Agency for Healthcare Research and Quality (AHRQ)

Purpose
By way of this Notice, NIH and AHRQ announce that training grant recipients will be required to use the xTRACT system in the eRA Commons to prepare the required data tables for Research Performance Progress Reports (RPPRs) for pre- and postdoctoral research training grants beginning in FY 2020.

Background and Related Information
In response to the recommendations of the Advisory Committee to the NIH Director’s Working Group on the Biomedical Research Workforce, NIH has developed an electronic system for creating research training data tables and tracking trainee outcomes. This system, xTRACT, has been available on a pilot basis in the eRA Commons since October 2015, and to date has been accessed by over 2,700 users at more than 200 institutions.
Application Timeline and Resources to Support Your T32 Application

Wayne T. McCormack, PhD
room CG-72K, phone 294-8334, mccormac@ufl.edu

Audrey Dickinson
room CG-72J, phone 294-8336, a.dickinson@ufl.edu

Yulia Strekalova, PhD
room CG-72C, phone 846-2399, yulias@ufl.edu
UF Training
Grant History

Wayne
Making Progress with NIH Training Grants

Data from NIH RePORTER

Fiscal Year

2009-2010 ARRA
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<tr>
<th>Training Grant</th>
<th>Program Director</th>
<th>Home College</th>
<th>Predocs</th>
<th>Postdocs</th>
<th>Other</th>
<th>Year</th>
<th>End Date</th>
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<td>Interdisc Training in Rehabilitation and Neuromuscular Plasticity</td>
<td>D Fuller</td>
<td>PHHP</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>16</td>
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<td>Together: Transforming &amp; Translating Discovery to Improve Health</td>
<td>W McCormack</td>
<td>Medicine</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>03/24</td>
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<td>Short-Term Training for Med Students in Cardiovasc &amp; Pulm Res</td>
<td>G Schultz, S Berceli</td>
<td>Medicine</td>
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<td>20</td>
<td>36</td>
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<td>J Lewis, J Bizon</td>
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<td>Training Prog for Applied Research &amp; Devel in Genomic Medicine</td>
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<td>Interdisc Grad Prog in Type I Diabetes &amp; Biomedical Engineering</td>
<td>M Atkinson, B Keselowsky</td>
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<td>08/22</td>
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<td>GatorStar: A New Marc U*Star Program at the Univ of Florida</td>
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<td>Interdisc Training in Movement Disorders and Neurorestoration</td>
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<td>Physical, Cognitive and Mental Health in Social Context</td>
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UF NIH T, F, and K Awards

*Record high number for UF
Data from NIH RePORTER
NIH Career Development (K) Awards

As of December 2018, n=39

Data from NIH RePORTER
T32 Toolkit & T Team

Wayne
Grant-Writing Courses, Workshops, and Toolkits

New UFHealth Faculty Directory

Need help finding people? Check out the new faculty directory at https://directory.ufhealth.org/

- Grant-Writing Graduate Courses
- F Force - NIH Individual Fellowships Toolkit
- T Team - NIH Training Grants Toolkit
- K College - NIH Career Development Award Toolkit
- D Detail - NIH Diversity Supplements Toolkit
- Loan Repayment Program Toolkit
- Sig and Hei Grants Toolkit
- Pilot Grants Toolkit

https://www.ctsi.ufl.edu/education/grant-workshops/
T Team – NIH Training Grants Toolkit

Are you a faculty member interested in applying for a training grant?

Click here for application resources and instructions

Are you a training grant administrator looking for appointment resources?

Click here for checklists and other resources

Stay tuned for upcoming workshop announcements.

Not sure where to start? Have questions? Email Audrey Dickinson adickinson@ufl.edu or call (352) 392-4832.

NIH-Funded Training Opportunities

The University of Florida partners with the National Institutes of Health to provide training opportunities for the next generation of scientists. As of July 2010, this partnership supports the training of 74 predoctoral, 32 postdoctoral, 20 medical students on short-term research rotations, and 7 undergraduates interested in health science research. To find out more about each training program, please visit its webpage (linked in the table below).

https://www.ctsi.ufl.edu/education/grant-workshops/training-grant-and-application-resources/
Application Timeline

Audrey

Office of Biomedical Research
Career Development
T32 Application Timeline: 6 Months from Deadline

- Target RFA! Search Awards at https://researchtraining.nih.gov/programs/training-grants
- Assemble Leadership Team
  - MPI? Diversity? Succession?
- Arrange Institutional Support
T32 Application Timeline: 5 Months from Deadline

- Contact NIH Program Officer
- Design the training program
  - Research area?
  - Predoc or Postdoc, or both?
  - Didactic curriculum? Certificate?
  - Team Science?
- Evaluate the mentor pool and send invitations to qualified faculty
Optimizing Mentor Pool

- Search the UF Health Web Directory by keyword or Program/Department to find all relevant faculty by Research Area
- Evaluate faculty for
  - Current External Funding: Search NIH Project Reporter, myInvestiGator, etc.
  - 10-year history of training relevant trainees
  - Diversity Balance (approx. trainee pop)
T32 Application Timeline: 4 Months from Deadline

- Draft Education Evaluation plan
- Write the 25-page Proposal Draft
  - Reserve 1 page for Data Table Analysis
  - Consult the Training Grant Library for structure & inspiration
- Submit the as-close-to-final-as-possible mentor list to Audrey Natwick
T32 Application Timeline

3 Months from Deadline

- Invite Key Personnel
  - Internal Advisory Committee members
  - Other relevant faculty who are not mentors, e.g., evaluator, biostatistician
- Request **Training** Biosketches from Mentors, Advisory Committee Members & Key Personnel
- Submit Draft Proposal to **Internal Peer Review**
T32 Application Timeline

2 Months from Deadline

- Develop Budget
- Request Letters of Support from whomever has agreed to matching funds, etc.
- Receive Peer Review Feedback & Revise Proposal
T32 Application Timeline

1 Months from Deadline

- Receive Data Tables & Insert Analysis
  - Brings Page Total to 25
- Submit Proposal for Internal Approvals (UF Office of Research)
- Submit Proposal to NIH!
Data Tables

Audrey

Office of Biomedical Research
Career Development
NRSA Training Grant Data Tables

- May create tables using fillable tables in MS Word or via the xTRACT system
  - We provide Word documents
- Changes made in 2016:
  - Maximum number of tables needed is now 8
  - Minimal reporting of individual-level information
  - Trainee outcomes must be tracked for 15 years
- It all starts with your mentor list!
- What reviewers are looking for & how they will use the data
- What YOU need to do: “Summarize these data in the Research Training Program Plan ...”
Table 1. Census of Participating Departments and Interdepartmental Programs

<table>
<thead>
<tr>
<th>Participating Department or Program</th>
<th>Total Faculty</th>
<th>Participating Faculty</th>
<th>Total Predoctorates</th>
<th>Total Predoctorates Supported by any HHS Training Award</th>
<th>Total Predoctorates with Participating Faculty</th>
<th>Eligible Predoctorates with Participating Faculty</th>
<th>TGE Predoctorates Supported by this Training Grant (Renewals/Revisions)</th>
<th>Predoctorates Supported by this Training Grant (R90 only Renewals/Revisions Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals</td>
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</table>

Part II. Postdoctorates

<table>
<thead>
<tr>
<th>Participating Department or Program</th>
<th>Total Faculty</th>
<th>Participating Faculty</th>
<th>Total Postdoctorates</th>
<th>Total Postdoctorates Supported by any HHS Training Award</th>
<th>Total Postdoctorates with Participating Faculty</th>
<th>Eligible Postdoctorates with Participating Faculty</th>
<th>TGE Postdoctorates Supported by this Training Grant (Renewals/Revisions)</th>
<th>Postdoctorates Supported by this Training Grant (R90 Only Renewals/Revisions Only)</th>
</tr>
</thead>
</table>

- Insight into the environment in which the proposed training will take place
- Summarize these data in the Background Section of the Research Training Program Plan
- Describe the organization of the proposed training program, the participating departments and interdepartmental programs, and the extent to which faculty, graduate students, and/or postdoctorates from those departments/interdepartmental programs participate in the programmatic activities to be supported by the training grant
**Table 2. Participating Faculty Members**

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree(s)</th>
<th>Rank</th>
<th>Primary Department or Program</th>
<th>Research Interest</th>
<th>Training Role</th>
<th>Predoctorates in Training</th>
<th>Predoctorates Graduated</th>
<th>Predoctorates Continued in Research or Related Careers</th>
<th>Postdoctorates in Training</th>
<th>Postdoctorates Completed Training</th>
<th>Postdoctorates Continued in Research or Related Careers</th>
</tr>
</thead>
</table>

- 10-year history
- Distribution of participating faculty by rank (junior vs. senior), by research interests, and by department or interdepartmental program
- Experience of participating faculty in facilitating the progression of predoctorates and postdoctorates in their careers
- Summarize these data in the Research Training Program Plan, within the Background Section and the Program Faculty Section of the Program Plan
- Describe the distribution of participating faculty by academic rank, department or interdepartmental program, areas of research emphasis, and the rationale for the faculty selected to participate in the training grant
- Analyze the data in terms of the overall experience of the faculty in training predoctorates and/or postdoctorates
- Comment on the inclusion of faculty whose mentoring records may suggest limited, recent training experience at either training level (predoctoral or postdoctoral)
• Current level of support for related research training
• Extent to which the proposed training grant has overlap in participating faculty
• Assess institutional environment and determine number of training positions to be awarded
• Summarize these data in the Background Section of the Research Training Program Plan
• Use the narrative to summarize the level of research training support at the institution
• Comment on instances where the tabular data indicate that there may be substantial overlap of participating faculty
• Evidence of the strength of the research environment
• Availability of funds to support research conducted by the trainees
• Appropriateness of the participating faculty in terms of their active research support
• Summarize these data in the Program Plan (Program Faculty Section) of the Research Training Program Plan
• Analyze the data in terms of total and average grant support
• Comment on the inclusion of faculty without research grant support in the proposed training program and explain how the research of trainees who may work with these faculty members would be supported
10-year history & current, abstracts allowed

We search for trainees & mentor as co-authors, up to 3 years past training period

Ability of each faculty member to foster trainee productivity through generation of publishable results

Assessment of the research quality and authorship priority of trainees

Summarize these data in the body of the application, including, for example, the average number of publications, how many students published as first author, and how many students completed doctoral training without any first-author publication resulting from their graduate research
Past 5 academic years

Ability of participating departments/interdepartmental programs to recruit trainees

Selectivity of admissions process, competitiveness of training program, and the appropriate number of training positions to be awarded

Summarize these data in the Program Plan (Trainee Candidate Section) of the Research Training Program Plan

Analyze the data in terms of the overall numbers of potential trainees, their credentials, characteristics, and eligibility for support, and enrollment trends
## Part II. Characteristics

### Most Recent Program Year: 2013-2014

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total Applicant Pool</th>
<th>Applicants Eligible for Support</th>
<th>New Entrants to the Program</th>
<th>New Entrants for Support</th>
<th>New Entrants Appointed to this Grant (Renewal/Revision Applications Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Months of Prior, Full Time Research Experience (range)</td>
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<tr>
<td>Prior Institutions</td>
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<tr>
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<tr>
<td>Mean GPA (range)</td>
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</table>

### Previous Program Year: 2012-2013

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<tr>
<th>Characteristics</th>
<th>Total Applicant Pool</th>
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</table>

### Mean Across All Years

<table>
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<tr>
<th>Characteristics</th>
<th>Total Applicant Pool</th>
<th>Applicants Eligible for Support</th>
<th>New Entrants to the Program</th>
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</tbody>
</table>
# Table 6B. Applicants, Entrants, and Their Characteristics for the Past Five Years: Postdoctoral

## Part I. Counts

<table>
<thead>
<tr>
<th>Most Recently Completed Year: 2013-2014</th>
<th>Total Applicant Pool</th>
<th>Applicants Eligible for Support</th>
<th>New Entrants to the Program</th>
<th>New Entrants Eligible for Support</th>
<th>New Entrants Appointed to this Grant (Renewal/Revision Applications Only)</th>
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<tbody>
<tr>
<td>PhDs</td>
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<td>MDs</td>
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<tr>
<td>Dual Degree Holders</td>
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<td>Other Degree Holders</td>
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<td>Total</td>
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</table>

## Previous Year: 2012-2013

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<th>Total Applicant Pool</th>
<th>Applicants Eligible for Support</th>
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</tbody>
</table>

## Means All Years Count

| PhDs                     |                      |                                 |                             |                                  |                                                                   |
| MDs                      |                      |                                 |                             |                                  |                                                                   |
| Dual Degree Holders      |                      |                                 |                             |                                  |                                                                   |
| Other Degree Holders     |                      |                                 |                             |                                  |                                                                   |
| Total                    |                      |                                 |                             |                                  |                                                                   |
## Part II. Characteristics

<table>
<thead>
<tr>
<th>Most Recent Program Year : 2013-2014</th>
<th>Total Applicant Pool</th>
<th>Applicants Eligible for Support</th>
<th>New Entrants to the Program</th>
<th>New Entrants for Support</th>
<th>New Entrants Appointed to this Grant (Renewal/Revisions Applications Only)</th>
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<tbody>
<tr>
<td>Mean Number of Publications (range)</td>
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<tr>
<td>Mean Number of First-Author Publications (range)</td>
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<thead>
<tr>
<th>Previous Program Year : 2012-2013</th>
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</table>

<table>
<thead>
<tr>
<th>Mean Across All Years</th>
<th>Total Applicant Pool</th>
<th>Applicants Eligible for Support</th>
<th>New Entrants to the Program</th>
<th>New Entrants for Support</th>
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</tbody>
</table>
Renewal/Revision Applications only - evaluation of the use of awarded training positions

“Awarded” and “Appointed” counts auto-filled ("Appointed" editable)

Summarize these data in the Progress Report Section of the Research Training Program Plan

If any trainee positions were not filled, if any trainees terminated early, or if the distribution of appointed positions differs from the distribution of awarded positions, provide an explanation

It may also be useful to refer to these data within the Recruitment and Retention Plan to Enhance Diversity Section of the Research Training Program Plan
### New applications - effectiveness of the proposed training program

### Renewal applications - use of predoctoral training positions (e.g., distribution by faculty member, year in program, years of support per trainee)

### Effectiveness of the supported training program in achieving the training objectives of the prior award period(s) for up to 15 years

### Summarize the data from Parts I-III (as applicable) in the Research Training Program Plan, either in the Program Plan Section or the Progress Report Section, as appropriate
### Part III. Recent Graduates (Only for New Applications and for Postdoctoral Renewal/Revision Applications Requesting an Expansion for Predoctoral Support)

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Faculty Member</th>
<th>Start Date</th>
<th>Summary of Support During Training</th>
<th>Terminal Degree(s) Received and Year</th>
<th>Topic of Research Project</th>
<th>Initial Position Department Institution Activity</th>
<th>Current Position Department Institution Activity</th>
<th>Subsequent Grant(s)/Role/Year Awarded</th>
</tr>
</thead>
<tbody>
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</table>

### Part IV. Program Statistics

<table>
<thead>
<tr>
<th>Percentage of Trainees Entering Graduate School 10 Years Ago Who Completed the PhD</th>
<th>Average Time to PhD for Trainees in the Last 10 years (not including leaves of absence)</th>
</tr>
</thead>
<tbody>
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</table>

### Table 8B. Program Outcomes: Short-Term

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Category of Trainee</th>
<th>Faculty Members</th>
<th>Start Date</th>
<th>Topic of Research Project</th>
<th>Subsequent Training or Related Award/Role/Year</th>
</tr>
</thead>
<tbody>
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</table>

OMB Number 0925-0001 and 0925-0002 (Rev. 06/15 Approved Through 10/31/2018)
### Part I. Those Appointed to the Training Grant

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Doctoral Degree(s) and Year(s)</th>
<th>Faculty Member</th>
<th>Start Date</th>
<th>Summary of Support During Training</th>
<th>Degree(s) Resulting from Postdoctoral Training and Year(s)</th>
<th>Topic of Research Project</th>
<th>Initial Position Department Institution Activity</th>
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</tbody>
</table>

### Part II. Those Clearly Associated with the Training Grant

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Doctoral Degree(s) and Year(s)</th>
<th>Faculty Member</th>
<th>Start Date</th>
<th>Summary of Support During Training</th>
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### Part III. Recent Graduates (Only For New Applications and Predoctoral Renewal/Revision Applications Requesting Postdoctoral Support)

<table>
<thead>
<tr>
<th>Trainee</th>
<th>Doctoral Degree(s) and Year(s)</th>
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OMB Number 0925-0001 and 0925-0002 (Rev. 06/15 Approved Through 10/31/2018)
Evaluation Plan

Yulia

Office of Biomedical Research
Career Development
SUPPORT FOR T32 EDUCATIONAL DEVELOPMENT AND EVALUATION

Yulia A. Strekalova, PhD, MBA
Director, CTSI Educational Development and Evaluation
&
Ast Res Prof, College of Journalism and Communications
yulias@ufl.edu
(352) 846-2399
THIS PRESENTATION

- Services
- Evaluation projects
SERVICES

■ Program planning and development
  - *Development of educational objectives and logic models*
  - *Evaluation planning*

■ Program evaluation
  - *Mixed methods evaluation*
  - *Trainee and mentor perspectives*

■ Instructional design and instructional communication
  - *Consultation on online course design*

■ *Entering Research* curriculum
EVALUATION PROTOCOL

- Established protocol
  - Interviews/focus groups
  - Survey

- Tracking by UFID for cross-program benchmarks
Seven Areas of Trainee Development

1. **Research Comprehension and Communication Skills**
   - Develop Effective Interpersonal Communication Skills
   - Develop Disciplinary Knowledge
   - Develop Research Communication Skills
   - Develop Logical/Critical Thinking Skills
   - Develop an Understanding of the Research Environment

2. **Practical Research Skills**
   - Develop Ability to Design a Research Project
   - Develop Ability to Conduct a Research Project

3. **Research Ethics**
   - Develop Responsible and Ethical Research Practices

4. **Researcher Identity**
   - Develop Identity as a Researcher

5. **Researcher Confidence and Independence**
   - Develop Confidence as a Researcher
   - Develop Independence as a Researcher

6. **Equity and Inclusion Awareness and Skills**
   - Develop Skills to Deal with Personal Differences in the Research Environment
   - Advance Equity and Inclusion in the Research Environment

7. **Professional and Career Development Skills**
   - Explore and Pursue a Research Career
   - Develop Confidence in Pursuing a Research Career
CURRENT PROJECTS

- Medical Scientist Training Program (MSTP) T32 program development
  - Facilitated program development and concept mapping activities
  - Obtained feedback from over current 30 MD-PhD trainees
  - Developed multi-level educational and training objectives for the proposed MSTP program
  - Consulted on logic model development
The PhD program teaches you how to collaborate with people across different disciplines, especially if the thesis is multidisciplinary. It also teaches how to effectively engage with and communicate with different mentors.

More diversity (geographically, racially, intellectually)
Better advising & better recruitment
Teamwork
Openness
More traditional PhDs
More support staff & help
More appreciation & support staff
More praising of student accomplishment
East writing deadlines
<table>
<thead>
<tr>
<th>Process Evaluation</th>
<th>Outcome Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inputs/Resources</strong></td>
<td><strong>Trainee-Level</strong></td>
</tr>
<tr>
<td>Trainees</td>
<td>Experiential Learning</td>
</tr>
<tr>
<td>Mentors</td>
<td>Team Scholarship</td>
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<tr>
<td><strong>Program Components</strong></td>
<td></td>
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<tr>
<td><strong>Institutional Resources</strong></td>
<td></td>
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<tr>
<td>Local, State and National Networks and resources</td>
<td><strong>Structural</strong></td>
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<tr>
<td></td>
<td>Training Program Support</td>
</tr>
<tr>
<td></td>
<td>Career Development</td>
</tr>
<tr>
<td><strong>Federal Sponsors of Research</strong></td>
<td><strong>Program Environment/Culture</strong></td>
</tr>
<tr>
<td></td>
<td>Professional Development</td>
</tr>
<tr>
<td></td>
<td>Diversity and Inclusion</td>
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<tr>
<td><strong>Other Florida and US Universities</strong></td>
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</tbody>
</table>

Motivating Conditions
<table>
<thead>
<tr>
<th>Inputs</th>
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</thead>
<tbody>
<tr>
<td><strong>Trainees:</strong> Undergraduate background; Major Demographics</td>
</tr>
<tr>
<td><strong>Mentors:</strong> Publication and grant record, Mentoring record, Participation</td>
</tr>
<tr>
<td><strong>Program Components:</strong> Course syllabi review, Sections taught and enrollment, Course evaluations and peer observation</td>
</tr>
<tr>
<td><strong>Institutional Resources:</strong> Courses/workshops taught and enrollment, Services used and vouchers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activities</th>
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</thead>
<tbody>
<tr>
<td><strong>Experiential Learning:</strong> Review of course syllabi, Sections taught and enrollment, Course evaluations and peer observation</td>
</tr>
<tr>
<td><strong>Team Scholarship:</strong> Participation in TL1 and Practicum team science projects, Review of course syllabi</td>
</tr>
<tr>
<td><strong>Training Program Support:</strong> Participation (number, demographics), Meeting frequency</td>
</tr>
<tr>
<td><strong>Career Development:</strong> Faculty development of mentors, Courses/workshops taught, enrollment</td>
</tr>
<tr>
<td><strong>Professional Development:</strong> Course and project offerings, enrollment, Annual CV review and career profile update</td>
</tr>
<tr>
<td><strong>Diversity and Inclusion:</strong> Quality of trainees, Demographics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outputs (short-term)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Performance:</strong> Transcript review, satisfactory grades, Degrees obtained, time-to-degree</td>
</tr>
<tr>
<td><strong>Competency Development:</strong> Competency-based assessment, Annual CV collection and career profile update, Abstracts submitted/presented at meetings, Publications</td>
</tr>
<tr>
<td><strong>Scholar Development Infrastructure:</strong> Attendance sheets and evaluation forms, Competency-based assessment, Mentorship Effectiveness Scale (learner), Mentorship Profile Questionnaire (faculty), Focus groups and individual interviews, Scholar participation as instructors, discussion leaders</td>
</tr>
<tr>
<td><strong>Professional Networking:</strong> CV review for collaborative projects, Grant and publication social network analysis, Focus groups and individual interviews, Professional network analysis</td>
</tr>
<tr>
<td><strong>Attitude and Mindset Development:</strong> Team Behavioral Observation Scales (BOS), Teamwork Quality Scale (TWO), Cross-Disciplinary Collaborative Activities, Research Orientation Scale, Integrative Capacity Index, Session feedback from learners, Focus groups and individual interviews, Semi-structured interviews</td>
</tr>
<tr>
<td><strong>Training Environment:</strong> Recruitment reports, Focus groups and individual interviews, Semi-structured interviews</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Outputs (long-term)</th>
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</thead>
<tbody>
<tr>
<td><strong>Degree Completion:</strong> Annual CV collection and career profile update</td>
</tr>
<tr>
<td><strong>MSTP Competencies:</strong> Annual CV collection and career profile update, Competency-based assessment</td>
</tr>
<tr>
<td><strong>Career Placement:</strong> Residency or job placement after MD/PhD, Job placement after residency</td>
</tr>
<tr>
<td><strong>Leadership:</strong> Annual CV collection and career profile update, Behavioral Observation Scale</td>
</tr>
</tbody>
</table>
CURRENT PROJECTS

- Introduction to Clinical Translational Research course
  - *Instructional design strategy of an online version of*
CONTACT

Yulia A. Strekalova, PhD, MBA
Director, CTSI Educational Development and Evaluation
College of Journalism and Communications
yulias@ufl.edu
(352) 846-2399
Trainee & Alumni Tracking

Audrey
Trainee Tracking

- Data housed in Gator Train, a Microsoft Access database
- Ultimate goal: to track employment outcomes for all HSC PhDs & Postdoctoral trainees, including T32 trainees
- Data tracked:
  - Matriculation & Graduation dates, & research titles
  - Mentor(s) & PhD Program/Department affiliation
  - Training Grant affiliation
  - Career outcomes, including initial & current placements, coded according to a nationally-recognized taxonomy
Gator Train: Trainee Profile

Training and Education

Graduate Student
- University of Florida
  - PhD: SY 1: 1/1/1999, SY 2: 1/1/00

Postdoctoral Trainee
- University of Florida
  - MPH: SY 1: 1/1/2004, SY 2: 1/1/08

Training Mentors

Michael Marsiske
- Graduate Mentor
- Open Mentor Form

Linda Cottler
- Postdoctoral Mentor
- Open Mentor Form

Albert Gator

Welcome to Gator Train! Before you enter, you must have up-to-date FERPA training!

Name (As it Appears on Training Grant)
- United States
- Male

Future Funding:

Sources

LinkedIn
ResearchGate
Google Scholar
ORCID
CV
Website Generation & Management

Audrey
T32 Program Websites

- T32s are expected to have webpages on the host department’s website.
- Webpages should display PI, Mentor & Appointee data, describe the program goals and structure, and detail the application process/timeline.
- Audrey Natwick will generate initial webpages for new programs.
Career & Professional Development Programs

Wayne
Grad Student & Postdoc Career and Professional Development (GradDev)

Sponsored by the UF CTSI & UF Health

Career Development

The GradDev calendar lists career development seminars sponsored by UF Health departments and graduate programs, with speakers from a variety of job sectors related to health sciences research.

To have your events included on the GradDev calendar, please contact Susan Gardner (sgard@ufl.edu).

Career Interest Teams are informal groups designed to provide introductory experiences for graduate students and postdocs to become familiar with various career options available for health sciences research. Participation is voluntary. Please feel free to attend any sessions you may be interested in.

Do you have a plan? Check out the Individual Development Plans page for more information about career and professional development planning while you are in grad school or a postdoc.

New Course: What is a Research Professional?

GMS5905 (3C27) What is a Research Professional (PDF)
Professional Skills

LEARN  DISCOVER  LEAD

SAVE THE DATE! Second Fridays of each month, 12:00 noon – 1:00 pm (feel free to bring your lunch!) All sessions in room C1–15 unless otherwise noted.

The “Learn – Discover – Lead” seminar series is designed to provide practical advice for PhD and dual degree scientists, who will be managing and leading research teams of their own. The target audience is graduate students, combined degree students, postdoctoral research trainees, and junior faculty, but everyone who may benefit from these seminars is welcome to attend!

To register for one of these seminars, click on the date.

<table>
<thead>
<tr>
<th>Date</th>
<th>Session Title</th>
<th>Presenter</th>
</tr>
</thead>
</table>
| 4/12/2019  | Aligning Expectations for Mentoring        | Roger Fillingim, PhD  
Director, CTSI Mentor Academy; Director, Pain Research and Intervention Center of Excellence; Professor, College of Dentistry |
| C2-33      |                                            |                                                                          |
Career Outcomes
Interdisciplinary Program in Biomedical Sciences
1996-2016 Current Postdocs

Current Biomedical Science PhD Postdocs

- Academic HSC: 137, 74%
- Univ/College: 6, 3%
- Government: 22, 12%
- Biotech: 1, 1%
- Pharma: 4, 2%
- Non-Profit, Res Inst: 15, 8%

N=185
Career Outcomes
Interdisciplinary Program in Biomedical Sciences
1996-2016 Career Outcomes Beyond Postdoc

Biomedical PhD Career Outcomes – What They Do

N=333
Career Outcomes
Interdisciplinary Program in Biomedical Sciences
1996-2016 Career Outcomes Beyond Postdoc

Biomedical PhD Career Outcomes – Where They Work

N=333
Career Outcomes
Interdisciplinary Program in Biomedical Sciences
1996-2016 Career Outcomes Beyond Postdoc
Team Science

Wayne
Taking Team Science to a Higher Level During Training

If We Expect Future Scientists To Work in Teams, They Should Be Trained in Teams

“TL1 Teams”

Supported by UF CTSA Awards TL1TR001428 and UL1TR001427
Levels of CTS Engagement for UF PhD & Dual Degree Students

- TL1 Training Grant
  - CTS Co-Major
  - TL1 Team
  - Publish
  - ACTS Conference

- CTS PhD Co-Major
  - Core (8)
  - Electives (6)
  - Clin/Trans PhD Aim
  - CTSI Research Day

- CTS Graduate Certificate
  - CTS Core Curriculum (8 credits)
  - Electives (3 credits)
How can we best prepare new researchers to USE team science?

- Use the “Science of Team Science” in our training programs
  - We know a LOT about how teams work
- Support team training via:
  - Didactic curriculum
  - Use TL1 training grant to support TEAMS of trainees
Team Science (GMS 6945)

- Intro to Team Science
- Preparing for Team Science
- Team Leadership
- Building a Research Team
- Writing a Collaboration Plan
- Managing Research Teams
- Conflict Management
- Team Monitoring
- Team Evaluation

Principles, Strategies

Evidence

Application
Team Science (GMS 6945)

- Intro to Team Science
- Preparing for Team Science
- Team Leadership
- Building a Research Team
- Writing a Collaboration Plan
- Managing Research Teams
- Conflict Management
- Team Monitoring
- Team Evaluation

- Behavioral Self-Assessment (DISC)
- Vision/Mission/Values
- Collaboration Plan
- Authorship Agreement
- Team Dimensional Training

2019
Interdisciplinary teams identify unmet medical need of common interest

T Phases
- Lectures, readings
- Immediate application by Team-Based Learning (TBL)
- Apply to unmet medical need
- Team reports

Final report
TL1 Teams

- Team members must be
  - from different PhD programs, in different colleges
  - from different labs

- TL1 Co-Mentors

- Extent of TL1 Team collaboration
  - Team specific aim(s)
    - Barrier to progress that collaboration addresses
    - Level of interdependence
    - Synergy between individual projects
    - Impact on individual dissertation research projects
## 2018 TL1 Teams

<table>
<thead>
<tr>
<th>Team</th>
<th>PhD Majors</th>
<th>Team Project</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Mass Communication</td>
<td>Rural Tobacco Users’ Barriers to Participating in Research</td>
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<tr>
<td></td>
<td>Health Education &amp; Behavior</td>
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<tr>
<td>2</td>
<td>Clin &amp; Health Psychology</td>
<td>A TL1 Team Approach to Clinician Perspectives on Hoarding Disorder</td>
</tr>
<tr>
<td></td>
<td>Biological Anthropology</td>
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<tr>
<td>3</td>
<td>Nursing Sciences</td>
<td>Personalizing Donor Human Milk for the Preterm Infant</td>
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<td></td>
<td>Microbiology &amp; Cell Science</td>
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<tr>
<td>4</td>
<td>Biomedical Engineering</td>
<td>CNS-Localized Delivery of Neurotrophic Factors for Treatment of Parkinson’s Disease</td>
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<tr>
<td></td>
<td>Neuroscience</td>
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</tbody>
</table>
Home Colleges of UF CTSI TL1 Trainees

Individual TL1 Trainees (2009-16) 
- Medicine/Dentistry
- Public Health & Health Professions
- Engineering
- Agriculture & Life Sciences
- Nursing
- Pharmacy
- Liberal Arts & Sciences
- Health & Human Performance
- Genetics Institute
- Veterinary Medicine
- Journalism & Communication

n=34

TL1 Teams (2016-18)

n=18
Degree Goals of UF CTSI TL1 Trainees

Individual TL1 Trainees
(2009-16)

TL1 Teams
(2016-18)

- PhD
- MD-PhD
- PhD (DPT)
- PhD (DVM)
- PhD (PharmD)
- PhD (RN)

n=34

n=18
Agenda

- 8:30 am  Welcome and Workshop Goals
  Tom Pearson

- 8:50 am  Preparing Your Training Grant Application
  Tom Pearson

- 10:00 am  Coffee Break

- 10:10 am  What's New with NIH Training Grants
  Wayne McCormack

- 10:25 am  The Application Timeline and Resources to Support Your T32 Application
  Audrey Natwick, Yulia Strekalova & Wayne McCormack

  - UF Training Grant History
  - T32 Toolkit & T Team
  - Application Timeline
  - Data Tables
  - Evaluation Plan
  - Trainee & Alumni Tracking
  - Website Generation & Management
  - Career & Professional Development Programs
  - Team Science

- 11:45 am  Wrap-up Discussion

- 11:55 pm  Adjourn