The UF CTSI is supported in part by NIH awards UL1TR001427, KL2TR001429 and TL1TR001428
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## New K Awards at UF, 2009 – 2016, by Year of Award and College, including CTSI KL2 Awards (in brackets) and Relocated K Awards

<table>
<thead>
<tr>
<th>YEAR</th>
<th>COM</th>
<th>COD</th>
<th>CON</th>
<th>COP</th>
<th>COVM</th>
<th>PHHP</th>
<th>OTHER</th>
<th>New</th>
<th>KL2</th>
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<td>8:30 am – 9:15 am</td>
<td>T.A. Pearson</td>
<td>Career Development Opportunities and K Awards</td>
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<td>9:30 am – 10:00 am</td>
<td>T.A. Pearson</td>
<td>K Award Components</td>
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<td>10:00 am – 10:30 am</td>
<td>Panel Discussions</td>
<td>Applying for a K Award K Writers’ Toolkit</td>
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Learning Objectives

1. Describe the various career development opportunities across the span of an academic career.

2. Identify the various Research Career Development Awards (K series) available to the new investigator.

3. Understand the rationale for the four parts of an RCDA application and presenting your plan in a compelling, competitive manner.

4. Be able to use the K Writers’ Toolkit to write a K Award application.
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)

Career Enhancement Award Stem Cells (K18)

Midcareer Investigator in Patient-Oriented Research (K24)

Mentored Patient-Oriented Research CDA (K23)

Diversity Supplement
Awards for Individuals with a Research Doctorate (e.g., PhD)

- Predoctoral Fellowships (F31)
- Institutional Training Grants (T32)
- Postdoctoral Fellowships (F32)
- Senior Fellowships (F33)

Programs:
- MARC COR (T34)
- BRTPUG Program
  Undergrads, post-bac, & graduates
- R25 Undergrads

Awards:
- Predoctoral Fellowships (F31)
- Institutional Training Grants (T32)
- Postdoctoral Fellowships (F32)
- Senior Fellowships (F33)
- Mentored Research Scientist Development Award (K01)
- Independent Scientist Award (K02)
- Career Transition Award (K22)
- Career Enhancement Award Stem Cells (K18)

Diversity Supplement
Early Career Development Awards

Goal: To transition junior faculty into successful R01 investigators by:

• Providing training needed for a research career
• Supporting career development activities
• Protecting time and effort for persons in early stages of research career (usually instructor or assistant professor)
• Establishing an independent laboratory
Early Career Development Awards: Eligibility

- Doctorate degree: For clinical research, MD, DO, DDS, doctorally-prepared nurse, or PhD in clinically related sciences (e.g. behavioral science, nutrition, exercise physiology, etc.)
- U.S. citizen or permanent resident (K99/ROO exception)
- Should not have received prior NIH research grant (R01). R21 or RO3 are okay.
- Willing and able to commit 75% effort
- Call NIH Institute contact person for clarification of eligibility
Career Development Support
Available from a K Award

- Stipend (Salary Plus Fringe) usually up to $75,000 per year, for up to 5 years
- Requirement for 75% protected time for research or career development
- Research and training expenses
  - Amount varies by institute (usually $25,000 per year)
  - Tuition
  - Travel
  - Consultant fees (statistical consultation)
  - Research assistants
Career Development Support
Available from a K Award
for highly technical specialties

• Availability differs by Institute
• Requirement for protected time for research or career development reduced to 50% for specialties (usually surgical) which entail levels of practice to maintain technical skills
• Needs to be justified in application
• Involve chair in cost-sharing
Career Development Awards For Underrepresented* Scientists

- Mentored Career Award for Faculty at Minority Institutions (K01): Postdoctoral Individuals/New Independent Researchers.

- Mentored Career Development Award to Promote Faculty Diversity in Biomedical Research (K01): Postdoctoral Individuals/New Independent Researchers. (Unique to NHLBI)

- Research Supplements to Promote Diversity in Health-Related Research

* Institution defined. Disabled and disadvantaged included
K-series Awards

- K01 – Mentored Research Scientist Development Award (3-5 yrs.)
- K08 – Mentored Clinical Scientist Development Award (3-5 yr.)
- K23 – Mentored Patient-oriented Research Career Development Award (3-5 yr.)
- K24 – Mid Career Investigator Award in Patient-oriented Research (3-5 yr.)
- K99/R00 – Pathway to Independence Award (1-2 yr. mentored, 3 yr. independent R00)
Mentored Clinical Scientist Development Award (K08)

- **Applicants**: Clinicians who are interested in developing independent research careers.

- **Application deadlines (new)**: February 12, June 12, and October 12.

- **Requirements**: at least 75% effort.

- **Support**: 3-5 years.

- **Salary**: Up to $75,000 per year plus benefits and up to $25,000 per year for research development support.
Mentored Patient-Oriented Research Career Development Award (K23)

- **Applicants:** Scientists who are committed to developing careers in patient-oriented research.

- **Application deadlines (new):** February 12, June 12, and October 12.

- **Requirements:** at least 75% effort.

- **Support:** 3-5 years.

- **Salary:** Up to $75,000 per year plus benefits and up to $50,000 per year for research development support.
Facts About K08 and K23

Similarities:

- Mentored awards
- Faculty appointment not required
- Require > 75% effort
- 3-5 year of support
- Budgets similar
  - Salary levels may vary by institute
Facts About K08 and K23

Differences -

• Research Development Support –
  $25,000/year for K08
  up to $50,000/year for K23

• K23 candidates must take courses such as study design, biostatistics, epidemiology, data management hypothesis development, drug development, etc., and legal and ethical issues associate with human subjects research.
What is “Patient-Oriented Research?”

For purposes of K23 award –
Research conducted with human subjects (or on material of human origin such as tissues, specimens) for which an investigator directly interacts with human subjects.

This includes:

• mechanisms of human disease
• therapeutic and behavioral interventions
• clinical trials
• development of new technologies
What Doesn’t Count as Patient-Oriented Research?

- Analysis of existing databases.
- Brief interaction with human subjects (such as one blood draw).
- Candidate designs a questionnaire that will be administered by other staff.

The projects listed above may be appropriate for a K08 application.
NIH Pathway to Independence (PI) Award
K99/R00

• **Receipt dates:** Standard NIH deadlines for K series (Feb 12, June 12, Oct 12).

• Up to 5 years support, two phases.

• Phase I Mentored research, 1-2 years (K99).

• Phase II Independent research support (R00) 1-3 years, contingent on securing an independent research/faculty position.

• Each phase provides funds for salary & research costs.
NIH Pathway to Independence (PI) Award
K99/R00 Applicant Requirements

- Outstanding postdoctoral candidates who have terminal clinical or research doctorates (PhD, MD, DO, DDS, DVM, ScD, DNS).
- No more than 5 years postdoctoral research training
- May submit only one PI Award application.
- May not simultaneously submit applications or have pending awards for any other PHS career development award (no K awards).
 NIH Pathway to Independence (PI) Award

K99/ROO Award

• Salary-Phase I Mentored research (K99): up to $75,000, plus applicable fringe benefits; up to $25,000 for research support/year. May engage in teaching and/or clinical duties up to 25% effort.

• Salary-Phase II Independent research support (R00): Consistent with institution’s salary structure. Total cost up to $249,000/year.

• Requirement: minimum of 75% of full-time professional.

• For more information:

  http://grants.nih.gov/grants/new_investigators/QsandAs.htm
Independent Scientist Award (KO2)

- Applicants who have non-research obligations such as heavy teaching loads, clinical work, and administrative duties that prevent them from having a period of intensive research focus.

- Applicant must have independent, peer-reviewed research support at the time of KO2. Need for protected time for research.

- **Requirement**: at least 75% effort.

- **Support**: 3-5 years

- **Salary**: Up to $75,000 per year plus benefits
Mentored Quantitative Research Career Development Award (K25)

- **Applicants**: Individuals with an advanced degree in a quantitative area of science or engineering who are committed to careers as independent biomedical or behavioral investigators.

- **Application deadlines**: February 12, June 12, October 12.

- **Requirement**: at least 75% effort.

- **Support**: 3-5 years

- **Salary**: Up to $75,000 per year plus benefits and up to $40,000 per year for research development support.
Other Resources

NHLBI Training & Funding
https://researchtraining.nih.gov/

NIH Training Opportunities
https://researchtraining.nih.gov/

NHLBI Guidelines for the Applicant
http://www.nhlbi.nih.gov/research/training/application-guidelines
CTSI Resources Available for K Writers: K Writers’ Toolkit

- Workshop Slides
- K Award Program Announcements
  SF 424 (R&R) with supplemental instructions for CDA application
- Current K Awards of UF
- Library of K01, K08, K23 Awards with summary statements for UF faculty (with permission; privileged use).
- Resources (N=112)
- Instruction in Responsible Conduct of Research
- Recruitment and Retention Plan to Enhance Diversity
- Sample Institutional Commitment Letters
- Follow-up and Tracking of CDA appointees.
Components of a Career Development Award

- Candidate
- Mentor(s)
- Institution
- Research Project
- Use SF424 applications as of 1/25/11 (NOT-OD-11-008)
- New Page Limits (NOT-OD-11-027)
Candidate’s Statement for an RCDA
(part of 12 page limit)

- **Background and Training:** Potential and commitment for research career
- **Scientific Bibliography:** Needs assessment for research success.
- **Career Development Plan / IDP**
  - Formal coursework/degree program
  - Seminars/journal clubs
  - Summer institutes/outside courses
  - Annual scientific meetings
  - Interactions with mentor(s)
  - Publications, grant applications
  - Timeline for career development
- **Training in Responsible Conduct of Research**
CTSI Resources Available for Candidate Section

- Office of Education Development and Evaluation for learning objectives, core competencies, evaluation
- Coursework, including specific to translational research
  - Team Science
  - Leadership
  - So you want to be a Professor
- Degree and Certificate Programs (e.g. MSTR)
- Plan for Responsible Conduct of Research
- Office of Career and Professional Development
  - Career Interest Teams
  - Rotation in industry, start-up, regulatory, community/advisory, and educational organizations
- K College
  - Monthly Seminars
  - K2R Boot camp
## Clinical and Translational Science Curriculum for KL2 Scholars (MS-CTS)

<table>
<thead>
<tr>
<th>Year 1 Summer</th>
<th>GMS 7093: Intro to Clinical &amp; Translational Research</th>
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<tr>
<td>Year 1 Fall</td>
<td>GMS 6861: Biostatistics I (3cr) GMC 6895: CTS Journal Club (1 cr)</td>
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<td>GMS 6903: Manuscript/abstract writing For Clinician/Scientist (2 cr)</td>
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<td>GMS 6893: CTS Seminar (2 cr)</td>
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<td>PHC 6001: Principles of Epidemiology (3cr)</td>
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<td>Year 1 Spring</td>
<td>GMS 6190: Quantitative Literacy (1 cr)</td>
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<td>GMS 6931: Ethical/Policy Issues in Clinical Res (2 cr)</td>
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<td>PET 5936: Grant Writing (3cr)</td>
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<td>*Team Science (1cr)</td>
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<td>GMS 7003: Responsible Conduct of Biomedical Research (1 cr)</td>
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<td>Year 2 Fall</td>
<td>*Developing Academic Leaders</td>
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<td>*K College/K to R Boot Camp</td>
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<tr>
<td>Year 2 Spring</td>
<td>GMS 6971: Master’s Thesis (2/3 cr)</td>
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*New Courses

**Electives: Minimum of 3 cr for MS in CTS of Research Design and Analysis coursework

GMS 6822: Measuring and Analyzing Health Outcomes (3 cr)
GMS 6826: Advanced Design in and Methodology for Case Control/Studies in Clinical Research (2 cr)
GMS 6829: Longitudinal Research Design (2 cr)
GMS 6832: Economic Methods for Evaluating Value in Health (3 cr)
GMS 6844: Experimental and Quasi Experimental Research Designs in Community Settings
GMS 6846: Meta-Analysis in Clinical Health Services Research and Public Health (2 cr)
PHC 6000: Epidemiology Methods I (3 cr)
PHC 6011: Epidemiology Methods II (3 cr)

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Mentors(s) for an RCDA (not part of 12 page limit)

- **Primary mentor’s experience**
  - Background and training
  - Experience and funding in area of mentee interest
  - Track record and current involvement in research training

- **Mentorial committee (3-4 co-mentors encourage multidisciplinary research)**
  - Describe role of each co-mentor
  - May have co-mentors from outside institutions, as needed
  - Describe function of the mentorial committee

- **Mentoring plan should be detailed (6 page limit)**
CTSI Resources Available for Mentor Section

- Mentor Development Program
- Mentor Mosaics
- UF Health Education and Research Directory to identify mentors and co-mentors
- Mentor Academy / Master Mentor Program
- Sample Mentoring Plan Letters
Institutional Sponsorship of an RCDA (not part of 12 page limit)

• Description of resources relevant to candidate’s career
  – Education and training programs
  – Research facilities

• Institutional commitment signed by official
  – Support of candidate for faculty career development (e.g. tenure track)
  – Promise to protect % effort as required by the RCDA
  – Usually description of remainder of time not supported by RCDA
CTSI Resources Available for Institutional Commitment Section

- Boiler Plate of Resources on CTSI Website
  - CTSI Facilities and Resources (N=36)
  - UF Colleges (N=16)
  - Other Facilities and Resources Affiliated with UF (N=60)

- K College

- K to R Program

- Sample institutional commitment letters
K College

- All UF K Awardees (Individual and Institutional), CDA’s, and aspiring K Award candidates (N=80).
- Monthly roundtable discussions, networking relevant to early career development.
- K Writers’ Workshop (Annually in fall semesters)
- K to R Program
  - R01 Writers’ Workshop (online)
  - K to R Boot Camp (monthly, Aug – May)

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Research Plan
(part of 12 page limit)

• Similar to an R01, except shorter due to candidate’s statement
• Preliminary results need not be lengthy, may include mentor’s laboratory results if relevant
• Describe expected results and transition to R01 type funding
• Timeline either in Candidate or Research Plan
CTSI Resources Available for Research Plan

- Pilot study funds
- Community engagement / Patient-Centered Resources
- Population databases
- Practice-based research networks
- Tissue repositories
- Research Cores / Shared Instrumentation
Practical Tips for RCDA’s

- Contact Project Officer early on and share goals and plan
- Submit K and then R01, not vice versa
- Understand NIH Institute’s guidelines about submitting R01’s during K Award. Transition of K to R is a measure of K award’s success
- Aim for primary score of 2.0 – 3.5 (non-fundable) and prompt revision
- Talk with current K Awardees, review their proposals