The R03 and K99 Grant Mechanisms

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Purpose: Transition from mentored postdoctoral research to independent research as a tenure-track faculty member.

K99: 1-2 years. Provides mentored postdoctoral research training toward a specific project designed to lead to independence for the candidate. Salary support = $75,000 (+fringe). Research support = $25,000. NOTE: These numbers vary slightly depending on institute.

R00: 3 years. Provides research and salary support up to $249,000.
REQUIREMENTS

• No more than 4 years postdoc experience at time of submission (or resubmission).

• Need to have rationale for requiring 1-2 years additional postdoctoral training.

• Need to be in a mentored postdoctoral position.

• Must not be in independent research position when the award is made.

• Must have a tenure-track faculty position by the end of the 2-year K99 phase for the R00 award to be made.

• Must devote at least 75% effort to career development and research during K99 phase and at least 75% effort to research during R00 phase.
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CANDIDATE

Candidate Background
• Commitment to biomedical research
• Potential for independence

Career Goals and Objectives
• Short and long term research/career goals
• Research training history
• Plans to separate from mentor

Candidate’s Plan for Career Development/Training Activities During Award Period
• Describe plan and activities to promote research and career development
• Describe how the research and training proposed will lead to a new avenue of research that is independent of the mentor.
• Describe plan for evaluation of progress including milestones.
• Describe transition plan.
MENTOR, CO-MENTOR, CONSULTANT, COLLABORATORS SECTION

Plans and Statements of Mentor and Co-mentor(s)
- Prior research and mentoring experience
- Supervision plan
- Description of training elements of research
- Plans to facilitate transition to independence

Letters of Support
- Collaborators, Contributors and Consultants

ENVIRONMENTAL AND INSTITUTIONAL COMMITMENT TO THE CANDIDATE

Description of Institutional Environment
- Facilities and resources available for the candidate
- Intellectual environment

Institutional Commitment to the Candidate’s Research Career Development
- Commitment of resources
- Assurance of minimum effort (≥ 75% effort)
RESEARCH PLAN

Research Strategy

• Divide into sections: Significance, Innovation, and Approach
• Need to cover all the aspects of a good research strategy including, but not limited to

  ➢ Significance of proposed work (why is it important?)
  ➢ Preliminary Data (something worth following up and/or feasibility)
  ➢ Rigor of experimental design
  ➢ Justification of parametric choices (sample size, drug dose, etc.)
  ➢ Discussion of sex as a biological factor
  ➢ Feasibility
  ➢ Potential Outcomes and their meaning
  ➢ Potential complications and contingencies for dealing with them.

• Include discussion of training/independence transition elements
• Describe how the research proposed will lead to a new avenue of research that is independent of the mentor.

Training in The Responsible Conduct of Research
SPECIFIC AIMS
• This focuses on the research proposed, but work in some training/independence-transition text too.

LETTERS OF REFERENCE

OTHER SECTIONS
• Project Summary/Abstract
• Project Narrative
• References Cited
• Biosketches
• Current and Pending Support
• Facilities and Resources
• Equipment
• Vertebrate Animals
• Human Subjects
• Select Agent Research
• Authentication of Key Biological and/or Chemical Resources
• Consortium/Contractual
• Resource Sharing Plan
SCORED REVIEW CRITERIA

• Candidate

• Career Development Plan/Career Goals and Objectives

• Research Plan

• Mentor(s), Co-Mentor(s), Consultant(s), Collaborator(s)

• Environment & Institutional Commitment to the Candidate

Additional Review Criteria and Considerations

• Human subjects protection and inclusions
• Vertebrate animals
• Biohazards
• Resubmissions
• Training in responsible conduct in research
• Select agent research
• Resource sharing plan
• Budget and period of support
Purpose: The NIH R03 funding opportunity announcement (FOA) supports discrete, well-defined projects that realistically can be completed in two years and that require limited levels of funding, such as:

- Pilot or feasibility studies
- Secondary analysis of existing data
- Small, self-contained research projects
- Development of research methodology
- Development of new research technology

The combined budget for direct costs for the two year project period may not exceed $100,000. No more than $50,000 in direct costs may be requested in any single year.

Tend to be institute specific in terms of targeted areas. Not all institutes have general R03 mechanisms.
RESEARCH PLAN

Specific Aims (1 pg)

Research Strategy (6 pg)

• Significance (1.5 - 2 pg)

• Innovation (0.5 pg)

• Approach (3.5 – 4 pg)
OTHER SECTIONS

• Project Description (abstract)
• Project Narrative (2-3 sentence description for public and Congress)
• Facilities and Resources
• Equipment
• Biosketches
• Vertebrate Animals
• Human Subjects
• Resource Sharing
• Letters of Support
SCORED REVIEW CRITERIA

• Significance
• Investigator
• Innovation
• Approach
• Environment
KISS OF DEATH

• Poor writing
• Mediocre idea
• Lack of feasibility
• Poor research design
• Flawed or missing interpretation of potential outcomes
• Poor funding for mentor (K99)
• Lack of institutional commitment
• Poor or modest productivity
• Insufficient rationale for need for training (K99)
• Concern about independence from mentor (K99)
TIPS

• Start writing at least 2 MONTHS before deadline

• FOLLOW INSTRUCTIONS.

• If you are struggling to write research strategy, it probably means that you do not have a well developed idea.

• Work closely with your mentor.

• Talk to your program officer (get on their radar screen).

• BE PRODUCTIVE.

• Write grant proposal using the style of the magazine Scientific American.

• Graphs and tables are excellent.

• Have others with experience read your grant. However, give them a finished draft and do so with ample time to modify your grant to address their criticisms.
BE RELENTLESS