

National Institutes of Health (NIH)

Individual Career Development Awards (K Series)

Template and Instructions for Selected Sections

Template begins on page 10

This document contains information from the NIH document “Details of Application Changes for Career Development Application Changes (for due dates on or after January 7, 2011)” dated December 21, 2009 (http://enhancing-peer-review.nih.gov/docs/Details_of_Career_Development_Application_Changes.pdf) along with suggested formatting guidelines for the Specific Aims page. Candidates should refer to the SF 424, PHS 398 and funding notices (e.g., requests for applications, requests for proposals, funding opportunity announcements) and other official NIH documents when preparing their applications.

Important Information to Know When Using this Document

For Current and Specific information for Career Development Awards (K Series) and other Unsolicited or Investigator-Initiated Applications, see

http://grants.nih.gov/grants/guide/parent_announcements.htm

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K Series Checklist

	SECTION OF APPLICATION	LIMITS (INSTRUCTION PAGE #)
	Letters of Reference <ul style="list-style-type: none"> • Submitted by referees directly to eRA Commons • Due by application due date 	At least 3, no more than 5 (I-128)
	Project Summary/Abstract	1 page (I-131 & I-61)
	Project Narrative	2-3 sentences (I-61)
	Bibliography & References Cited	No page limit (I-62)
	Facilities & Other Resources	No page limit (I-131 & I-62)
	Equipment (if applicable)	No page limit (I-63)
	Referee List <ul style="list-style-type: none"> • Attach under "12 - Other Attachments" 	No page limit (I-131)
	Biosketch (version B)	4 pages per person (I-132)
	Mentor/Co-Mentor Current & Pending Support <ul style="list-style-type: none"> • Only list support relevant to K candidate's research plan 	4 pages per person (I-133)
	Detailed (R&R) Budget <ul style="list-style-type: none"> • Budget justification for all costs 	No page limit (I-135)
	Candidate Information (sections 2-4) <ul style="list-style-type: none"> • Candidate Background • Career Goals & Objectives • Career Development/Training Activities 	12 pages with research strategy – section 11 (I-141)
	Training in the Responsible Conduct of Research	1 page (I-142)
	Statements by Mentor, Co-Mentors, Consultants, Contributors	6 pages (I-143)
	Description of Institutional Environment	1 page (I-145)
	Institutional Commitment	1 page (I-146)
	Specific Aims	1 page (I-147)
	Research Strategy <ul style="list-style-type: none"> • Significance • Innovation • Approach 	12 pages with candidate information – sections 2-4 (I-147)
	Protection of Human Subjects (if applicable)	No page limit (I-149 & II-1)
	Inclusion of Women & Minorities (if applicable)	No page limit (I-149 & II-12)
	Targeted/Planned Enrollment (if applicable) http://grants.nih.gov/grants/funding/424/SF424R-R_enrollment.doc	No page limit (I-150 & II-14)
	Inclusion of Children (if applicable)	No page limit (I-150 & II-15)
	Vertebrate Animal Section (if applicable)	No page limit (I-151)
	Select Agent Research (if applicable)	No page limit (I-152)

	SECTION OF APPLICATION	LIMITS (INSTRUCTION PAGE #)
	Consortium Contractual Arrangements (if applicable)	No page limit (I-153)
	Resource Sharing Plan (if applicable)	No page limit (I-153)
	Appendix (if applicable)	10 max (I-154)
	Cover letter <ul style="list-style-type: none">• Required for mentored applications• Must include referee list• Request IC or SRG assignment	No page limit (I-136 & I-92)

Helpful Resources

Criteria and Considerations for K Critiques:

<http://grants.nih.gov/grants/peer/critiques/k.htm>

K Kiosk - Information about NIH Career Development Awards:

<http://grants.nih.gov/training/careerdevelopmentawards.htm>

NIH Standard Due Dates for Competing Applications:

<http://grants.nih.gov/grants/funding/submissionschedule.htm>

NIH Scoring Key

<http://enhancing-peer-review.nih.gov/scoring&reviewchanges.html>

NIH Glossary & Acronym List

<http://grants.nih.gov/Grants/glossary.htm>

Writing the Application

General Formatting Guidelines

For specific information, see SF424 R&R:

<http://grants.nih.gov/grants/funding/424/index.htm>

Font

Use an Arial, Helvetica, Palatino Linotype, or Georgia typeface, a black font color, and a font size of 11 points or larger. (A Symbol font may be used to insert Greek letters or special characters; the font size requirement still applies.)

Type density, including characters and spaces, must be no more than 15 characters per inch. Type may be no more than six lines per inch.

Paper Size and Page Margins

Use standard paper size (8 ½" x 11). Use at least one-half inch margins (top, bottom, left, and right) for all pages. No information should appear in the margins, including the PI's name and page numbers.

Page Formatting

Since a number of reviewers will be reviewing applications as an electronic document and not a paper version, applicants are strongly encouraged to use only a standard, single-column format for the text. Avoid using a two-column format since it can cause difficulties when reviewing the document electronically.

Do not include any information in a header or footer of the attachments. A header will be system-generated that references the name of the PD/PI. Page numbers for the footer will be system-generated in the complete application, with all pages sequentially numbered.

URLs

Unless otherwise specified in the FOA, Internet website addresses (URLs) may not be used to provide information necessary to the review because reviewers are under no obligation to view the Internet sites.

Figures, Graphs, Diagrams, Charts, Tables, Figure Legends, and Footnotes

You may use a smaller type size but it must be in a black font color, readily legible, and follow the font typeface requirement. Color can be used in figures; however, all text must be in a black font color, clear and legible.

Grantsmanship

Use English and avoid jargon.

If terms are not universally known, spell out the term the first time it is used and note the appropriate abbreviation in parentheses. The abbreviation may be used thereafter.

Candidate's Biographical Sketch Instructions

A biographical sketch attachment (limited to 4 pages) is required for the K candidate. A copy of the biographical sketch format page is here: http://grants.nih.gov/grants/funding/424/SF424R-R_biosketch_VerB.doc

A biosketch for the K applicant should follow the instructions below:

Position Title: If the candidate is not currently located at the applicant organization, include both "current" and "projected" position titles, labeling each accordingly.

Education: Complete the educational block at the top of the format page beginning with the baccalaureate or other initial professional education, such as nursing, and include postdoctoral training; separately referencing residency training when applicable. For each entry provide the name and location of the institution; the degree received (if applicable); the month and year the degree was received, and the field of study. For residency entries, the Field of Study section should reflect the area of residency. For non-degree education, indicate the time period covered. List professional certifications received within the last 10 years.

Personal Statement: Briefly describe why your experience and qualifications make you particularly well-suited to receive the K award for which you are applying.

Research and/or Professional Experience: Use the headings given below instead of the instructions on the Biographical Sketch Format Page. Identify each heading.

Employment

Start with the first position held following the baccalaureate and give a consecutive record to date. Indicate the department and organization, department head or supervisor, rank, tenured or non-tenured, status (full- or part-time), and inclusive dates (month and year). When applicable, include information on military service, and, if not referenced under Education above, internships, residencies, research assistantships, fellowships, etc. If the candidate is not currently located at the applicant organization, include the projected employment position in this section as well.

Honors

List academic and professional honors chronologically, including research grants and competitive fellowships awarded to the candidate.

Professional Societies and Public Advisory Committees

Identify professional societies and related organizations in which membership has been held within the last 10 years, giving dates. Include present membership on any Federal Government public advisory committee.

Publications

NIH encourages applicants to limit the list of selected peer-reviewed publications or manuscripts in press to no more than 15. The individual may choose to include selected publications based on recency, importance to the field, and/or relevance to the candidate's proposed research. Candidates without 15 publications may substitute the following in lieu of publications:

- Original research and theoretical treatises;
- Non-experimental articles, e.g., review of literature in field, book chapters, etc.;
- Books, pamphlets, etc.

For each publication, list the authors in published sequence, full title of article, journal, volume number, page numbers, and year of publication. Indicate if you previously used another name that is reflected in any of the citations. URLs or NIH PubMed Central (PMC) submission identification numbers may be included along with the full reference. While there is no limit to the number of URLs or PMC submission identification numbers that can be cited, applicants should be both judicious and concise.

Do not include manuscripts submitted or in preparation.

When citing articles that fall under the Public Access Policy, were authored or co-authored by the applicant and arose from NIH support, provide the NIH Manuscript Submission reference number (e.g., NIHMS97531) or the PubMed Central (PMC) reference number (e.g., PMCID234567) for each article. If the PMCID is not yet available because the Journal submits articles directly to PMC on behalf of their authors, indicate "PMC Journal - In Process." A list of these Journals is posted at:

http://publicaccess.nih.gov/submit_process_journals.htm. Citations that are not covered by the Public Access Policy, but are publicly available in a free, online format may include URLs or PMCID numbers along with the full reference (note that copies of publicly available publications are not accepted as appendix material.)

Research Support: List both selected ongoing and completed (during the last three years) research projects (Federal or non-Federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and responsibilities of the Senior/Key Person identified on the Biographical Sketch. *Do not include number of person months or direct costs.*

Don't confuse "Research Support" with "Other Support." Though they sound similar, these parts of the application are very different. As part of the biosketch section of the application, "Research Support" highlights your accomplishments, and those of your colleagues, as scientists. This information will be used by the reviewers in the assessment of each individual's qualifications for a specific role in the proposed project, as well as to evaluate the overall qualifications of the research team. In contrast, "Other Support" information is required for all applications that are selected to receive grant awards. NIH staff will request complete and up-to-date "other support" information from you after peer review. This information will be used to check that the proposed research has not already been Federally-funded.

K Template (12-page limit)

How to Use this Template: Fill in the blank areas beneath each of the sections and delete the template as you write, leaving the bold-faced headings. This template is to serve as a guideline only and should be modified as needed based on the specific research project and NIH funding notice (e.g., funding opportunity announcement, request for application or request for proposal). Though this template reflects the general formatting guidelines on page 6, please ensure that you have correctly formatted your own application before submitting it.

This template is formatted in 11-point Arial font

Specific Aims (1 Page Limit)

NIH Instructions: State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will exert on the research field(s) involved. List succinctly the specific objectives of the research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology.

*****Begin Specific Aims Template Below*****

Specific Aims

- What is your project about? State your goal/objective/outcome.
- Why is it important? State the significance and overall impact.
 - Medical significance
 - Long-terms goal/objective of the project
- What is known? Provide background related to your research question.
 - This could include data from your lab as part of this background
- What is unknown? What do you hope to accomplish?
- Why is the gap in this knowledge a problem and how do you propose to address it?
 - Rationale of this study – why are you doing THIS project?
 - What have you accomplished to date that suggests this approach? (Preliminary Data)
- What is your hypothesis (hypotheses)?
 - Objective of this application
- Explain how you will address your hypothesis (hypotheses) using your **Specific Aims**. You may also list a hypothesis for each aim here.
 - Address “why” questions rather than “what”: no “demonstrate” or “describe” words should lead the aims, which should be very succinct and include expected outcomes
 - If you can briefly include an indication of the expected outcome/significance here, do so
 - KEEP THE AIMS SHORT – a full paragraph/aim is too much
- Summary paragraph: what you propose to do
 - Why it is relevant/SIGNIFICANT to medical science and the field
 - Why your research team is the best team for the project
 - INNOVATION
 - Other salient features (e.g., multidisciplinary investigative team, outstanding clinical and/or laboratory environments)

*****End Specific Aims Template*****

Important Note: The total number of pages for these sections (Candidate's Background, Career Goals and Objectives, Career Development/Training Activities during Award Period, and Research Strategy) *combined* may not exceed 12 pages.

*****Begin Candidate Template Below*****

Candidate's Background

Use this section to provide any additional information not described in the Biographical Sketch Format Page such as research and/or clinical training experience.

Career Goals and Objectives

Describe your past scientific history, indicating how the award fits into past and future research career development. If there are consistent themes or issues that have guided previous work, these should be made clear; if your work has changed direction, the reasons for the change should be indicated. It is important to justify the award and how it will enable you to develop or expand your research career. You may include a timeline, including plans to apply for subsequent grant support.

Career Development/Training Activities During Award Period

Stress the new enhanced research skills and knowledge you will acquire as a result of the proposed award. If you have considerable research experience in the same areas as the proposed research, reviewers may determine that the application lacks potential to enhance your research career. For mentored awards, describe structured activities, such as course work or technique workshops, which are part of the developmental plan. If course work is included, provide course numbers and descriptive titles. Briefly discuss each of the activities, except research, in which you expect to participate. Include a percentage of time involvement for each activity by year, and explain how the activity is related to the proposed research and the career development plan. Note that recipients of mentored K awards may receive concurrent support from an NIH research grant award or cooperative agreement only under certain conditions (see NIH Notice NOT-OD-08-065).

Training in the Responsible Conduct of Research

For mentored career development awards, describe a plan to acquire instruction in the responsible conduct of research. For independent career awards, describe a plan to provide instruction in the responsible conduct of research. See Part III Section 1.16 for information on the NIH Policy on Training in the Responsible Conduct of Research (RCR).

Attach a description of plans for obtaining instruction in the responsible conduct of research. This section should document prior instruction or participation in RCR training during the applicant's current career stage (including the date instruction was last completed) and propose plans to either receive instruction or participate as a course lecturer, etc., in order to meet the once every four-year requirement. The plan should address how applicants plan to incorporate the five instructional components outlined in the NIH Policy on Instruction in the Responsible Conduct of Research: format, subject matter, faculty participation, duration, and frequency. The plan may include career stage-appropriate individualized instruction or independent scholarly activities that will enhance the applicant's understanding of ethical issues related to their specific research activities and the societal impact of that research. The role of the mentor in RCR instruction must be described.

Where applicable, Renewal applications must describe the RCR instruction activities undertaken during the project period as well as future plans.

*****End Candidate Template*****

Research Strategy

Organize the Research Strategy in the specified order using the instructions provided below. Start each section with the appropriate section headings: (a) Significance, (b) Innovation, (c) Approach. Cite published experimental details in the Research Strategy section and provide the full reference in the Bibliography and References cited section of the application.

*****Begin Research Strategy Template Below*****

(a) Significance

Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.

Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.

Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.

(b) Innovation

Explain how the application challenges and seeks to shift current research or clinical practice paradigms.

Describe any novel theoretical concepts, approaches or methodologies, instrumentation or intervention(s) to be developed or used, and any advantage over existing methodologies, instrumentation or intervention(s).

Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation or interventions.

(c) Approach (Include Preliminary Studies here)

Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. *Tip:* make it clear what tasks are related to each specific aim. Unless addressed separately in Item 21 (Resource Sharing Plan), include how the data will be collected, analyzed, and interpreted as well as any resource sharing plans as appropriate.

Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.

If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high-risk aspects of the proposed work.

Point out any procedures, situations, or materials that may be hazardous to personnel and precautions to be exercised. A full discussion on the use of Select Agents should appear in Sections 19 and 21.

*****End Research Strategy Template*****