K-award Checklist

A. **Research and Related Other Project Information:**
   1. Project Summary or Abstract - Provide an abstract of the entire application (candidate, environment, and research). Include the candidate's immediate and long-term career goals, key elements of the research career development plan, and a description of the research project. (1 page max)
   2. Project Narrative - (2-3 sentences about the relevance of this research to public health)
   3. References Cited - (no page limit)
   4. Facilities and Other Resources - Provide a detailed description of the institutional facilities and resources available to the candidate. This information is used to assess the capability of the organizational resources available to perform the effort proposed. Identify the facilities to be used (Laboratory, Animal, Computer, Office, Clinical and Other). If appropriate, indicate their capacities, pertinent capabilities, relative proximity and extent of availability to the project. Describe only those resources that are directly applicable to the proposed work. Provide any information describing the Other Resources available to the project (e.g., Core Facilities) and the extent to which they would be available to the project. (no page limit)
   5. Equipment – List of major equipment available in the lab and other equipment available to the candidate. (no page limit)
   6. List of Referees – Include name, title, and institution (same list to be provided in the Cover Letter)
   7. Budget Justification - Use this to provide a detailed description and justification for specific items within the Research Development Support costs, e.g., all equipment, supplies, and other personnel that will be used to help achieve the career development and research objectives of this award.
   8. Consortium Justification – (if needed)

B. **PHS Components**
   <u>Research Plan:</u>
   1. Introduction – For resubmissions: Address critique points (1 page). For revisions: (1 page).
   2. Specific Aims – State concisely the goals of the proposed research and summarize the expected outcomes, including the impact that the results will exert on the research field. List succinctly the specific objectives. (1 page max)
   3. Research Strategy - (12 pages max for Research Strategy AND Candidate Information)

      (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 current research or clinical practice paradigms.

      - Describe any novel theoretical concepts, approaches or methodologies, instrumentation or interventions to be developed or used, and any advantage over existing methodologies, instrumentation, or interventions.

      (c) Approach

      - Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. 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 Item 18 below.

- Preliminary Studies (new applications) or Progress Report (renewal/revised applications)

Human subject sections: - (no page limits)
1. Protection of Human Subjects
2. Inclusion of Women and Minorities
3. Targeted/ Planned Enrollment Table
4. Inclusion of Children

Other Research Plan Sections:
1. Vertebrate Animals - (no page limit)
2. Select Agent Research – (if applicable)
3. Consortium/Contractual Agreements - (if there is/are subcontractor(s))
4. Letter(s) of Support - (not a requirement)
5. Resource and Model Organism Sharing Plans – (Resource Sharing Plan is required. Model Organism Sharing Plan is only if the creation of a new mouse model is proposed.) Outline a plan to make research findings available to qualified individuals within the scientific community. (no page limit)
6. Appendix - (Max. 10 pdf attachments. #1 is the summary).
    - Allowed - Manuscripts & abstracts in press. Manuscripts & abstracts published but a free, online, publicly available journal link is not available (submit entire article). Patents directly related to the project (submit entire document). (3 max)
    - Not allowed – Photos/figures that should otherwise be submitted as part of the Research Proposal. Manuscripts & abstracts published that are available free online.

C. **Candidate Information:** (12 pages max for Research Strategy AND Candidate Information)
1. Candidate's Background
    - Use this section to provide any additional information not described in the Biographical Sketch such as research and/or clinical training experience.
2. 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.
3. 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.
4. Training in the Responsible Conduct of Research
    - 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.

D. **Mentor's Statement of Support:** The mentor must explain how they will contribute to the development of the candidate's research career. This statement should include all of the following:
1. The plan for the candidate's training and research career development.
   - This description must include not only research, but also other developmental activities, such as seminars, scientific meetings, training in the responsible conduct of research, and presentations. It should discuss expectations for publications over the entire period of the proposed project and define what aspects of the proposed research project the candidate will be allowed to take with him/her to start their own research program.
2. The source of anticipated support for the candidate's research project for each year of the award period.
3. The nature and extent of supervision and mentoring of the candidate, and commitment to the candidate's development that will occur during the award period.
4. The candidate's anticipated teaching load for the period of the award (number and types of courses or seminars), clinical responsibilities, committee and administrative assignments, and the portion of time available for research.
5. A plan for transitioning the candidate from the mentored stage of his/her career to the independent investigator stage by the end of the project period of the award. The mentor should describe previous experience as a mentor, including type of mentoring (e.g., graduate students, career development awardees, postdoctoral students), number of persons mentored, and career outcomes.

All mentored career development applications should identify all co-mentors, consultants and collaborators involved with the proposed research and career development program. Briefly describe their roles and anticipated contributions. A co-mentor must specifically address the nature of his/her role in the career development plan and how the responsibility for the candidate's development is shared with the mentor. Describe respective areas of expertise and how they will be combined to enhance the candidate's development. Also describe the nature of any resources that will be committed to this CDA. Letters from the mentor(s), co-mentor(s), consultant(s), advisory committee members (if applicable), and contributor(s) documenting their role and willingness to participate in the project must be included.
(Statements of support from all mentors, co-mentors, consultants, contributors, etc, should be uploaded into a single pdf document and cannot exceed 6 pages)

E. **Environmental & Institutional Commitment to Candidate:**
1. Institutional Environment (1 page max)
   - The sponsoring institution must document a strong, well-established research program related to the candidate's area of interest, including the names of key faculty members relevant to the candidate's proposed developmental plan. Indicate how the necessary facilities and other resources will be made available for career enhancement as well as the research proposed in this application. Describe opportunities for intellectual interactions with other investigators, including courses offered, journal clubs, seminars, and presentations
2. Institutional Commitment to Candidate's Research Career Development (1 page max)
   - The institution should provide a document on institutional letterhead that describes its commitment to the candidate and the candidate's career development, independent of the receipt of the CDA. The document should include the institution's agreement to provide adequate time and support for the candidate to devote the proposed protected time to research and career development for the entire period of the proposed award. The institution should provide the equipment, facilities, and resources necessary for a structured research career development experience. It is essential to document the institution's commitment to the retention, development and advancement of the candidate during the period of the award.

F. **Cover Letter:** include list of referees

G. **Administrative:** Completed by the Grants Administrator
1. Detailed Budget - Candidate minimum effort 75% or 9 CM. 8% F&A (exclusive of tuition & fees and major equipment purchase)
2. Other Support - for mentor and co-mentors (4 pages max each)

3. Goldenrod Signatures: PI, Chief and DOM
4. Biosketches - Key personnel only. All individuals who have committed to contribute to the scientific development and execution of the project, including mentors and co-mentors, should be identified as Senior/Key Personnel, even if they are not committing any specified measurable effort to the proposed project. Mentors and co-mentors should be assigned the Project Role of "Other Professional" and then enter "Mentor" or "Co-mentor" in the Other Project Role Category field.
5. Salary back up documentations
6. ACUC / IRB approvals

Special Instructions for K-award Biosketches:

Required Headings for Biosketch:

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

B.   **Employment and Honors:**
• 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.

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

• 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.

C.   **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, 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 published on and after April 7, 2008 and 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.

D.   **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.