

Best Practices for Competitive Grant Applications: NIH Funding for Research & Career Development Activities

* 4.0 ACCME Credits, lunch provided

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12:30pm to 5:00pm

Location

Columbia University Medical Center
Atchley-Loeb Conference Room
622 W 168th St., PH8 East 107, New York, NY

12:30 *Lunch & Registration*

1:00 **Federal Funding Agencies & Funding Mechanisms**

Discussion of Federal funding agencies, including the NIH and the other Dept. of Health & Human Services Public Health Service agencies, as well as other agencies that support biomedical research (e.g., the Dept. of Defense, the National Science Foundation, the U.S. Dept. of Agriculture). Discussion of NIH's different extramural funding mechanisms, including the different types of grants, contracts, and cooperative agreements (e.g., research grants, program projects, career development awards, institutional training grants, individual fellowships). Discussion of the different types of funding announcements (e.g., program announcements, Request for Applications, Request for Proposal, Broad Agency Announcements) issued by NIH and other Federal agencies, and what they mean in terms of the type of requested application, funding available, and expected number of application. NIH's grant review process, including the role of Institutes and Study Section review panels, deadlines, scoring system and Impact Scores, allowed number of applications, review criteria, and how to direct an application to the most appropriate review panel.

2:15 **Best Practices for Developing a Competitive NIH Research Grant or Cooperative Agreement Application (R, P, U)**

Discussion of the different types of research funding mechanisms, including grants, cooperative agreements, and contracts, and the different types of grants, e.g., those that provide comprehensive costs for the research project (e.g., R01), as compared to those provide funding for pilot projects (e.g., R03). Discussion of the NIH review process specific for research grant applications, including the role of NIH Institutes and Study Section review panels, deadlines, scoring system, Impact Scores, review criteria, and the allowed number of applications. Detailed description of how to construct appropriate budgets and budget justifications for those involving line item information as well as for those involving modular budgets. Discussion on how to determine appropriate personnel to be involved in the proposed project, including Multiple Principal Investigators, Senior/Key Personnel, Other Significant Contributors, consultants, co-investigators, and collaborators. The Specific Aims and the Research Plan sections of the application will be discussed in detail, including the Significance, Innovation, and Approach sections. The other major components, including the cover letter; grant title; abstract; description of facilities, resources, and equipment; subawards and consortium agreements; letters of support; and resource sharing plans will be addressed. Regulatory issues, including research with human subjects, women and minorities, research with children, research involving clinical trials, research with human embryonic stem cells, and the involvement of international sites will be addressed. Examples of ways to strengthen applications as well as why proposals are turned down will be provided. Approaches to address NIH's new requirements on "Rigor and Reproducibility", including "Sex as a Biological Variable" and "Authentication of Key Biological and Chemical Resources" will be provided. Data on the number of applications, awards, success rates, and paylines for each of NIH's Institutes will be provided.

3:45 **Best Practices for Developing a Competitive NIH Career Development (K) Grant Application for the Support of Junior Faculty**

Discussion of the mission and the different types of career development programs (e.g., K01, K08, K23, K24) will be provided. Discussion of the NIH review process specific for career development grant applications, including the role of NIH Institutes and Study Section review panels, deadlines, scoring system, Impact Scores, review criteria, and the allowed number of applications. An NIH career development application includes all of the components of an NIH research grant application, plus the Candidate Section. The components of this latter section will be discussed in detail, including the Candidate's Background; Career Goals and Objectives; and Career Development/Training Activities. Related topics include how to select a Mentor, when to have more than one Mentor, how to select members of an Advisory Committee, and from whom to request confidential letters of reference. The discussion will also include how to develop a comprehensive research training plan involving formal didactics (e.g., courses, workshops), short-term and long-term goals, and a plan for the "transition to independence". In addition, all of the elements required for a strong Mentor's Statement will be described in detail, including the Mentor's assessment of candidate and the Mentor's funding to support the applicant's research project. In addition, all of the research-related items discussed in the R01 grant application lecture will also be addressed. Data on the number of applications, awards, success rates, and paylines for each of NIH's Institutes will be provided.

4:45 **Identifying Funding Opportunities**

Best approaches for identifying government and non-government agencies who offer sponsor project funding opportunities appropriate for an investigator's specific research interests and career level. Government and non-government funding databases, e-mail funding alert systems that are based on investigator-selected keywords that allow researchers to receive targeted funding opportunity e-mails.

5:00 *Adjourn*

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