

## News from the National Institute of General Medical Sciences (NIGMS)<sup>1</sup>

### WHAT ARE THE HIGH RISK/HIGH IMPACT (R21) AWARDS SUPPORTED BY THE NIGMS? WHERE IS INFORMATION AVAILABLE ABOUT THIS NEW PROGRAM?

The purpose of this new initiative is to encourage applications for research projects that involve an especially high degree of innovation and novelty and require a preliminary test of feasibility. These research projects may involve substantial experimental risks, such that their potential for highly significant outcomes may be difficult to judge by standard criteria used in evaluating research project (R01) proposals.

NIGMS wants to encourage fundamental research that falls into the following classes: projects to test novel and significant hypotheses for which there is scant precedent or preliminary data and which, if confirmed, would have a substantial impact on current thinking; projects to explore new experimental organisms or systems in order to address particularly difficult basic biomedical questions for which the new systems would be particularly advantageous; and projects to develop innovative techniques or methodologies with wide applicability to the study of basic biomedical problems.

The projects must align with the mission of NIGMS as described in the "Divisions" information under "About NIGMS" which can be found on the NIGMS www home page at <http://www.nih.gov/nigms/>. In brief, NIGMS supports research in (a) cell biology and molecular biophysics, including basic studies of the structure and function of cells, cellular components, and the biological macromolecules that make up these components; (b) fundamental mechanisms of inheritance and development that typically utilize non-human model systems; (c) basic studies in pharmacology, physiology, biochemistry, biorelated chemistry and anesthesiology; (d) basic studies in biotechnology, including biocatalysis and metabolic engineering; (e) bioengineering, including instrumentation development and refinement and development of bioanalytical methods and biomaterials; and (f) trauma and burn injury.

Research projects will be supported by the exploratory/developmental research grant mechanism (R21). Applicants may request up to two years of support and up to \$70,000 per year in direct costs. Applications are to be submitted on the grant application form PHS 398 (rev. 5/95) for the regular research grant application receipt deadlines: February 1, June 1 and October 1. The number and title of the program announcement PA-97-049-EXPLORATORY STUDIES FOR HIGH

RISK/HIGH IMPACT RESEARCH-must be typed in Section 2 on the face page of the application.

Applications will be reviewed in the usual Division of Research Grants study sections, but will not receive percentile scores and will not be included in the base from which the percentiles of other applications are calculated. Study sections will be asked to take into account the requirements of NIGMS that the project show "potential for ground-breaking, precedent-setting significance . . . with particular emphasis on novel and innovative approaches that clearly require additional preliminary data for their value to be established."

There is no "set-aside" for the program; NIGMS staff will recommend only those proposals clearly meeting the stated requirements. The R21 cannot be renewed; if sufficient data are generated during the term of the award, investigators could then apply for further funding through regular research grants, e.g., the R01 mechanism. Complete information about the objectives, eligibility, and procedures can be found in the full text of the program announcement PA-97-049, which can be accessed at <http://www.nih.gov/nigms/funding/pa/r21.html>. This site also provides a useful information sheet prepared by NIGMS staff with commonly asked questions and answers.

To recap, NIGMS wants to provide pilot-scale support for potentially ground-breaking ideas/methods/systems that meet the following criteria: they lack sufficient preliminary data for feasibility to be established, and therein lies the "risk"; their successful demonstration would have a major impact on biomedical research; they fall within areas supported by NIGMS.

All conditions listed above must be satisfied. Therefore, gathering preliminary data for a proposal whose significance is already well established would not qualify. Similarly, projects that will provide incremental advances in knowledge, whether or not there is a lack of preliminary data, are likewise not eligible. Finally, only NIGMS is committed to accepting proposals in response to this Program Announcement, and will do so only if they fall within its purview. Potential applicants are strongly encouraged to call NIGMS staff members listed in the program announcement PA-97-049 regarding any possible proposals.

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<sup>1</sup> Future topics for this column: training grants at the NIGMS, new NIH review scoring criteria, and your suggestions.

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