The NIH AREA Program
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AASCU External Funding Conference

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ACADEMIC RESEARCH ENHANCEMENT AWARD
AREA or R15 Program

http://grants.nih.gov/grants/funding/area.htm

- **Strengthening the research environment at eligible institutions**
- **Exposing students at such institutions to meritorious biomedical & behavioral research (including basic research)**
- **Providing support for meritorious research at these AREA-eligible institutions**

Goals of the AREA or R15 Program

- **R15 supports meritorious research**
  - ☐ **AREA grants are renewable**
  - ☐ **Research should contribute to the field**
  - ☐ **Results should be useful & publishable**
- **Students should be exposed to meritorious and peer-reviewed research**
  - ☐ **Students learn how to do research by doing it**
  - ☐ **Students may be co-authors on scientific publications**
- **Insitutional research enviroment is enhanced**
  - ☐ **More faculty will be involved in research**
  - ☐ **Collaborations using complementary approaches**

The NIH R15 or AREA Program
Academic Research Enhancement Award

- **For baccalaureate or advanced degree granting institutions with up to or less than $6M in NIH grants per year for 4 years over the past 7 years (excluding C, S & G grants)**
- **List of AREA-eligible and AREA-ineligible institutions on R15 home-page**
- **Most of work must be done at home institution**
  - □ **Principal Investigator (PI) may recruit students to work full-time during the summer and/or part-time during the academic year**

R15 FEATURES: PA-10-070

- **Renewable grant; competing continuations**
- **Up to $300,000 direct cost for project period of up to 3 years plus negotiated F&A (IDC) rate**
  - □ **$250K or $300K DC requested in budget year 1**
- **Budgets of $250,000 DC or less are modular**
  - □ **Modular budget & budget justification**
- **Budgets of more than $250,000 DC are NOT**
  - □ **Detailed budget & strong budget justification**
- **Standard 5 NIH review criteria plus AREA-specific criteria addressing goals of program**
- **12- Page limit for Research Strategy**
- **Three electronic receipt dates per year: February 25, June 25, and October 25**

APPLICATION FORMAT

- **1-Page Specific Aims**
- **12-Page Research Strategy with discussion of Significance, Innovation, Approach and Preliminary Studies for New Applications and/or Progress Report for Renewal Applications**
- **Biographical Sketch: Personal Statement on why you are well-suited to be the PI**
- **Resource Page for Scientific Environment**
- **1-Page Introduction for Resubmissions**

Preparation by the Institution

- **Are the Faculty, Business Office, Deans all supportive of faculty research & knowledgeable about the NIH application process?**
  - ☐ Know the guidelines, deadlines, submission & correction process, and review criteria
- **Does the Institution provide and support an environment for faculty to succeed?**
  - ☐ Start up packages for equipment, supplies & students
  - ☐ Credit for student involvement in research
- **Do tenure decisions include credit for independent and/or collaborative research (multiple investigators?**
  - ☐ Some projects require team work & more expertise

More Institutional Preparation

- **Help NIH applicants with the Resource page, equipment available and student profiles**
  - ☐ Environment is a review criterion
  - ☐ Resources necessary to accomplish the aims
- **Do not pressure applicants to apply if their projects are not ready for peer-review**
  - ☐ Only 2 submissions allowed per project
  - ☐ Quality over quantity; submit best proposal
- **Use the Cover Letter to help the Receipt and Referral Staff make the two assignments**
  - ☐ NIH Institute & NIH study section assignment

More Preparation by the Institution

- **Mentor new faculty & critique their research & application**
  - ☐ Discuss what reviewers look for, like or dislike
  - ☐ Faculty should be very familiar with all the NIH Review Criteria questions
- **Support faculty researcher to attend national and important meetings in their fields**
  - ☐ Present research and interact with other researchers
  - ☐ Attend NIH grant workshops
  - ☐ Encourage faculty to contact NIH staff by e-mail with specific aims and rationale on a one page (not visit)

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Preparation by the Investigator

- Are you asking the important, next questions in the field?
    - Do you or your collaborators have the appropriate expertise and experience?
    - Does your research fit the NIH research goals?
- Have you generated preliminary data at your current institution with your students and other staff?
    - Is your data supportive of your research proposal?
    - Are your tools & reagents prepared & ready?
- Have you recruited and trained the necessary students and technicians?
    - Are they enthusiastic and engaged? Are you?

Research Strategy

- **Get feedback early on your one-page Specific Aims page**
- **Understand the NIH review criteria & the review criteria questions**
- **Write a clear, reviewer-friendly proposal on your most exciting research project**
- **Be self-critical, rigorous, persistent, and enthusiastic about your research**
- **In the resubmission, respond thoroughly and diplomatically to all review comments, concerns, issues and suggestions**

Manuscripts versus Grant Proposals

Manuscripts
- What experiments you did and why
- Enough details so others can do them
- Retrospective; looking back

Grant Proposals
- What experiments you plan to do, why and what their significance might be
- Discussion of potential pitfalls and possible alternatives, results, their interpretation, and potential impact
- Prospective; looking forward

General Questions

- **Does the AREA Program target New Investigators or Early Stage Investigators (ESIs) ?**
  - ESIs of R01 proposals are targeted by NIH
  - The R15 program does not target ESIs or New PI
- **Does NIH favor translational and interdisciplinary research over basic, fundamental research?**
  - NIGMS supports basic research & model organisms
  - NIH wants & needs a balance of research approaches: investigator-initiated, single PI, collaborative or team, transformational, translational, interdisciplinary, fundamental & basic research
  - Impact and significance of the research needs to be discussed, rationalized and justified

More General Questions

- **When and why should a project be submitted to NIH versus NSF?**
  - NIH and NSF share many research goals in chemistry, biology, biochemistry, biophysics, bioengineering, bioinformatics and biomath
  - NIH focuses on biomedical and behavioral research, both clinical & applied as well as basic, fundamental and non-disease research using model organisms such as bacteria, plants, flies, worms & others (GM)
- **Why is the entire, requested AREA budget in Year 1 only and not spread out over 2-3 years?**
  - R15 is a multi-year funding mechanism, funded in Y1.

Application Assignments & Cover Letter

- **The Division of Receipt and Referral at the Center for Scientific Review (CSR) will make two assignments for your applications, but you may request specific assignments**
  - An NIH Institute or Center (IC) for programmatic and funding consideration, such as NIGMS or NIAID or MIMH
  - An Initial Review Group for review of scientific merit by a Scientific Review Group or Study Section, ie., Cell Biology
- **Include a COVER LETTER with the following:**
  - Research goals and hypotheses/questions and specific aims
  - Biological system or model used or studied (microbe vs animal)
  - Major methods and approaches proposed (biological vs computational or chemical or pharmacological or social, etc.)
  - Areas of review expertise (NOT names of reviewers)
  - Potential conflicts (name & reason, i.e., direct competitor)
  - +/- Requested NIH Institute/Center +/- Study Section Choices

Biobehavioral Methods to Improve Outcomes Research (R01)
http://grants.nih.gov/grants/guide/pa-files/PA-09-125.html

- PA-09-125
- NINR, NIGMS, NIDDK, NIDCD, NCI, NIAMS and OBSSR
- Office of Biobehavioral & Social Sciences Research: http://obssr.od.nih.gov/index.aspx
- To foster biobehavioral research and develop innovative research designs, methods of measurement, and data analysis techniques
- To examine the impact of biologic & behavioral variables on individuals' health outcomes

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R15 SPECIFIC REVIEW CRITERIA

- RESEARCH: Is the research project meritorious and appropriate for available students?
- ENVIRONMENT: Assess the suitability of the applicant school/academic component for an award in terms of the likely impact that an award will have on strengthening the research environment and exposing available students to research.

New NIH SCORING System

- Final score (1 for best and 9 for worst) provided by all reviewers not in conflict
- Overall priority score is the mean score from all eligible reviewer scores multiplied by 10
- Final scores will be reported in whole numbers and will range from 10 to 90

NIH SCORING SYSTEM

Impact	Score	Descriptor	Additional Guidance on Strengths/Weaknesses
High	1	Exceptional	Exceptionally strong with essentially no weaknesses
High	2	Outstanding	Extremely strong with negligible weaknesses
High	3	Excellent	Very strong with only some minor weaknesses
Medium	4	Very Good	Strong but with numerous minor weaknesses
Medium	5	Good	Strong but with at least one moderate weakness
Medium	6	Satisfactory	Some strengths but also some moderate weaknesses
Low	7	Fair	Some strengths but with at least one major weakness
Low	8	Marginal	A few strengths and a few major weaknesses
Low	9	Poor	Very few strengths and numerous major weaknesses

Additional Information for Scoring Guidance Table
Non-numeric score options: NR = Not Recommended for Further Consideration, DF = Deferred, AB = Abstention, CF = Conflict, NP = Not Present, ND = Not Discussed
Minor Weakness: An easily addressable weakness that does not substantially lessen impact   **Moderate Weakness:** A weakness that lessens impact   **Major Weakness:** A weakness that severely limits impact

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Criterion Scores

- **Assigned reviewers will provide preliminary overall impact or overall priority scores**
- **Assigned reviewers will use the 9-point scale for the five review criteria**
  - □ Each assigned reviewer's criterion scores will be reported on the summary statement
  - □ Criterion scores will be reported for discussed and not discussed applications
- **Reviewers will weigh criterion scores as appropriate for each application in determining overall impact or overall priority score**

Criterion & Overall Scores

- **Assigned reviewers will provide preliminary overall impact or priority scores**
- **Assigned reviewers will use the 9-point scale for the five review criteria**
  - □ Each assigned reviewer's criterion scores will be reported on the summary statement
  - □ Criterion scores will be reported for discussed and not discussed applications
- **Reviewers will weigh criterion scores as appropriate for each application in determining overall impact or priority score**

OVERALL IMPACT

Reviewers will provide an overall impact/priority score to reflect their assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved, in consideration of the following five core review criteria, and additional review criteria (as applicable for the project proposed).

REVIEW PROCESS

- **Chair will ask for initial overall impact or overall priority scores from the assigned reviewer 1, reviewer 2, and the reader**
- **Summary of the project aims by reviewer 1 followed by assessment by the assigned reviewers**
- **Discussion of the application opened to the rest of the panel**
- **Assigned reviewers will state their final scores**

Scoring Descriptions

Impact	Score	Descriptor
High Impact	1	Exceptional
	2	Outstanding
	3	Excellent
Moderate Impact	4	Very Good
	5	Good
	6	Satisfactory
Low Impact	7	Fair
	8	Marginal
	9	Poor

The FIVE NIH Review Criteria for Research Proposals

- Significance
- Investigator(s)
- Innovation
- Approach
- Environment

SIGNIFICANCE

- **Does this project address an important problem or a critical barrier in the field?**
- **If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved?**
- **How will the successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?**

INVESTIGATOR(S)

- **Are the PD/PIs, collaborators, and other key researchers well suited to the project?**
- **If Early State Investigators or New Investigators, do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)?**
- **If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?**

INNOVATION

- Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or inventions?
- Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense?
- Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

APPROACH

- Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project?
- Are potential problems, alternative strategies, and benchmarks for success presented?
- If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed?
- If the project involved clinical research, are the plans for 1) protection of human subjects from research risks, and 2) inclusion of minorities and members of both sexes/genders, as well as the inclusion of children, justified in terms of the scientific goals and research strategy proposed?

ENVIRONMENT

- Will the scientific environment in which the work will be done contribute to the probability of success?
- Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed?
- Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?