Academic Research Enhancement Award (AREA) Program – R15

September 9, 2014

Office of Research
Seminar Outline

• Research Project Grants

• Academic Research Enhancement Award (AREA) Program – R15

• NIH Institutes and Centers

• General guidelines for successful grant writing
NIH’s mission is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce the burdens of illness and disability.

- World’s largest source of funding for biomedical research
- Support more than 300,000 research personnel at over 3,000 universities and research institutions
- 27 Institutes and Centers (ICs) with specific research agendas
**Research Project Grant – the RPG**

**What is the RPG?**

- **Financial assistance mechanism** providing money, property, or both to an eligible entity to carry out an approved project or activity.

- This assistance supports the **advancement of the NIH mission** of enhancing health, extending healthy life, and reducing the burdens of illness and disability.

- A grant is used whenever the NIH Institute or Center anticipates no **substantial programmatic involvement** with the recipient during performance of the financially assisted activities.

- While the principal investigator (PI) conceives and writes the application, NIH recognizes the **applicant institution as the grantee** for most grant types.
NIH RPG Award Mechanisms

## Research Project Grants

<table>
<thead>
<tr>
<th>Purpose</th>
<th>R01</th>
<th>R03</th>
<th>R21</th>
<th>R15</th>
</tr>
</thead>
<tbody>
<tr>
<td>discrete, specified, circumscribed research projects</td>
<td>small research projects, including pilot and feasibility studies;</td>
<td>secondary analysis of existing data;</td>
<td>exploratory and developmental research projects in early and conceptual stages;</td>
<td>Small scale research projects that expose students to research and strengthen the institution research environment;</td>
</tr>
<tr>
<td></td>
<td>development of research methodology and new technology</td>
<td></td>
<td>some risk but may lead to breakthrough in field or other methods or technical developments</td>
<td>US institution that does not receive significant NIH funding</td>
</tr>
<tr>
<td>Budget</td>
<td>as appropriate</td>
<td>$50K/year</td>
<td>$275K/entire</td>
<td>$300/entire</td>
</tr>
<tr>
<td>Project Period</td>
<td>5 Years</td>
<td>2 years</td>
<td>2 years</td>
<td>3 years</td>
</tr>
<tr>
<td>Renewable</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Foreign Inst</td>
<td>yes</td>
<td></td>
<td></td>
<td>no</td>
</tr>
</tbody>
</table>
AREA – R15

• Overview of program
• Unique application requirements
• Unique review criteria
• Changes, trends, and funding
• Strategies for success
• Eligibility
Eligibility = applicant institution and PI only

Eligibility ≠ collaborators
Institution Eligibility

- US institutions only
- Health professional schools
- Baccalaureate or advanced degree in biomedical or behavioral science
- Accredited (i.e., degree granting), offers health science degrees
- Receives less than $6 million per year in NIH support in 4 out of last 7 years
There is no “eligible” list

• Ineligible list is on AREA Program website
  ▫ [http://grants.nih.gov/grants/funding/area_ineligible.htm](http://grants.nih.gov/grants/funding/area_ineligible.htm)
  ▫ “College” is called “School”
  ▫ City listed does not necessarily mean that campus only

• “Other Academic” = sum of everything that is not an *R15-defined* Health Professional School
  ▫ Dentistry, Nursing, Public Health

• Academic disciplines considered “health science related” [http://www.nih.gov/about/mission.htm](http://www.nih.gov/about/mission.htm)
PI Eligibility

• **Primary** appointment at eligible institution

• **OK:**
  - Also serve as consultant (e.g., Key Personnel) on another grant
  - Serve as PD of training grant at time of award

• **Not OK:**
  - Also serve as PI of other NIH research grants at time of award
  - Also serve as Multiple PI on another NIH research grant at time of award
Common collaborator/consultant question

- Can I have a collaborator/consultant who is not at an AREA-eligible institution, at home campus or another site?
- Eligibility answer: Yes
- Merit answer: *But* keep the unique goals and criteria of the R15 in mind
  - No one can predict what level of involvement will be seen as counter to the R15 goals
  - Pre-PA-12-006, unique attributes not included as strongly in review criteria
Purpose of AREA Program

• Support small-scale research projects in the biomedical and behavioral sciences

• Conducted by faculty and students

• In educational institutions that have not been major recipients of NIH research grant funds
Goals of AREA Program

• Support meritorious research

• Expose students to research

• Strengthen the research environment of the institution
Key Features of R15

- Project period is limited up to 3 years
- Direct cost limited to $300,000 over entire project period
- Multiple PIs are allowed, if all eligible
- Research Strategy limited to 12 pages
- Grants are renewable
- Preliminary data not required but can be provided
Changes to R15 Over Time

- Now considered career-long, no longer stepping stone to R01

- Renewable

- Now clear incorporation of R15 goals in review criteria

- Now softened language about expected scientific impact
Key Required Questions of R15 Goals

• “Important scientific contribution”. How the AREA grant will provide support for meritorious research?

• How the AREA grant will strengthen the research environment?

• How the AREA grant will expose students to research?

• Strengthen research environment. What is the likely impact of an AREA award in the PI and the school/academic component?
Application Logistics

- Funded through the R15 grant mechanism
  - Program Announcement (PA) Number: PA-13-313

- Receipt dates
  - Standard application deadlines: February 25, June 25, and October 25
  - AIDS-related research deadlines: May 7, September 7, and January 7

- All NIH ICs participate in the AREA program except:
  - Fogarty International Center (FIC)
  - National Institute on Minority Health & Health Disparities (NIMHD)
  - National Center for Advancing Translational Sciences (NCATS)
Some review criteria unique to AREA – R15 program

• PA-12-006 & PA-13-313
• Investigator
  ▫ Experience supervising students in research?
• Approach
  ▫ Can project stimulate students’ interest so they consider biomedical/behavioral science career?
• Environment
  ▫ Well qualified students available?
  ▫ Have or likely will have students pursuing biomedical/ behavioral science careers?
Addition to PI Biosketch

• Summary of previous/current experience supervising students in research

• Specify which pubs/patents involved students under their supervision
  ▫ Publication = published or in press/accepted
  ▫ Publication ≠ submitted or “accepted pending revision”
Additions to Facilities

- For institution or qualifying College/School
- Profile of students
- Estimate of # who obtained Bachelor & went on to doctoral degree in health-related sciences during the last 5 years
- Special characteristics that make it appropriate for 3 goals of AREA
- Impact of R15 on PI & institution
- Any institutional support
- Limited use of special facilities elsewhere
“Student profiles” in Facilities section

“A profile of the students of the applicant institution/academic component and any information or estimate of the number who have obtained a baccalaureate degree and gone on to obtain an academic or professional doctoral degree in the health-related sciences during the last five years”

- “The total number of students who obtained a baccalaureate degree from the University and applied/were accepted to a health professional school is as follows…”

- “Student record information does not include data on how many Psychology majors pursue a doctoral degree; however, most research team members can identify a number of students they have mentored over the past five years that have enrolled in a health-related sciences doctoral degree program.”
Examples of Institutional Support

- Equipment
- Lab space
- Release time
- Matching funds
- Items PI will not be charged for (e.g., no *per diem* for animals)
- Pilot funds
- Supply funds for student research
- Summer stipends for student researchers
Funding Statistics FY11-13 for R15s

- NIH wide: ~1400-1500 applications, ~200 awards

- # applications & awards vary widely among ICs, and not just by size of IC

- Similar success rate to other research grants

FY04-13 Funding Trends for R15s

![Bar chart showing funding trends for R15s from FY2004 to FY2013. The chart displays the number of applications reviewed, the number of applications awarded, and the success rate over the years.]
## FY13 R15 Funding by Institute/Center (IC)

<table>
<thead>
<tr>
<th>Institute/Center</th>
<th>Applications reviewed</th>
<th>Applications funded</th>
<th>Success rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIAAA</td>
<td>21</td>
<td>1</td>
<td>4.8%</td>
</tr>
<tr>
<td>NIA</td>
<td>61</td>
<td>2</td>
<td>3.3%</td>
</tr>
<tr>
<td>NIAID</td>
<td>159</td>
<td>23</td>
<td>14.5%</td>
</tr>
<tr>
<td>NIAMS</td>
<td>52</td>
<td>4</td>
<td>7.7%</td>
</tr>
<tr>
<td>NCCAM</td>
<td>19</td>
<td>3</td>
<td>15.8%</td>
</tr>
<tr>
<td>NCI</td>
<td>215</td>
<td>28</td>
<td>13.0%</td>
</tr>
<tr>
<td>NIDA</td>
<td>28</td>
<td>4</td>
<td>14.3%</td>
</tr>
<tr>
<td>NIDCD</td>
<td>25</td>
<td>2</td>
<td>8.0%</td>
</tr>
<tr>
<td>NIDCR</td>
<td>25</td>
<td>2</td>
<td>8.0%</td>
</tr>
<tr>
<td>NIDDK</td>
<td>76</td>
<td>5</td>
<td>6.6%</td>
</tr>
<tr>
<td>NIBIB</td>
<td>49</td>
<td>3</td>
<td>6.1%</td>
</tr>
<tr>
<td>NIEHS</td>
<td>49</td>
<td>10</td>
<td>20.4%</td>
</tr>
<tr>
<td>NEI</td>
<td>24</td>
<td>4</td>
<td>16.7%</td>
</tr>
<tr>
<td>NIGMS</td>
<td>304</td>
<td>45</td>
<td>14.8%</td>
</tr>
<tr>
<td>NICHD</td>
<td>138</td>
<td>14</td>
<td>10.1%</td>
</tr>
<tr>
<td>NHGRI</td>
<td>1</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>NHLBI</td>
<td>122</td>
<td>17</td>
<td>13.9%</td>
</tr>
<tr>
<td>NLM</td>
<td>4</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>NIMH</td>
<td>58</td>
<td>10</td>
<td>17.2%</td>
</tr>
<tr>
<td>NINR</td>
<td>36</td>
<td>6</td>
<td>16.7%</td>
</tr>
<tr>
<td>NINDS</td>
<td>102</td>
<td>14</td>
<td>13.7%</td>
</tr>
<tr>
<td><strong>FY13 Total</strong></td>
<td><strong>1568</strong></td>
<td><strong>197</strong></td>
<td><strong>12.6%</strong></td>
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</tbody>
</table>
Percentage Success Rate of R15 Funding For 2013

- NINDS
- NINR
- NIMH
- NHLBI
- NICHD
- NIGMS
- NEI
- NIEHS
- NIBIB
- NIDDK
- NIDCR
- NIDCD
- NIDA
- NCI
- NCCAM
- NCIAMS
- NIAID
- NIA
- NIAAA

Success rate

0.00% 5.00% 10.00% 15.00% 20.00% 25.00%
NIH FY14 Overall Budget

NIH Divides most of its investment according to the interests of the component parts (i.e. Institutes or Centers). In red, top 5 Institute or Center success rates for R15 funding.

Total = $30.9 B

- **NCI**
- **NIAID**
- **NHLBI**
- **NIGMS**
- **NIDDK**

**NIMH – 17.2%**

**NEI – 16.7%**

**NIEHS – 20.4%**

**NINR – 16.7%**

**NCCAM – 15.8%**
### Institute/Center (IC) Strategic Plans

**NIH Strategic Plans and Visions**

<table>
<thead>
<tr>
<th>Institutes and Centers</th>
<th>NIH-Wide</th>
<th>Topical</th>
<th>Interagency Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center for Information Technology (CIT)</td>
<td>Center for Scientific Review (CSR)</td>
<td>John E. Fogarty International Center (FIC)</td>
<td>National Cancer Institute (NCI)</td>
</tr>
</tbody>
</table>

Whom should I contact regarding questions about I/C objectives specifically for the AREA grant?

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

Contact information for representatives of each IC may be found at:
News & Resources

- AREA Program evaluation underway
  - Assessing Program’s success in meeting its goals
  - Surveys & interviews by Westat
- AREA Program Facebook page
  - Like us on Facebook
  - https://www.facebook.com/NIHAreaProgram
- AREA Program FAQs
  - http://grants.nih.gov/grants/funding/area_faq.htm
- AREA mailbox
  - R151@mail.nih.gov
FY13 distribution of R15 awards

"NIH Awards by Location & Organization" search terms: PA-12-006, FY13
gid=&distr=&rfa=PA-12-006&om=n&pid=#tab4
<table>
<thead>
<tr>
<th>Organization</th>
<th>City</th>
<th>Awards</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of William And Mary</td>
<td>Williamsburg</td>
<td>1</td>
<td>$367,500</td>
</tr>
<tr>
<td>Eastern Virginia Medical School</td>
<td>Norfolk</td>
<td>1</td>
<td>$366,250</td>
</tr>
<tr>
<td>George Mason University</td>
<td>Fairfax</td>
<td>1</td>
<td>$429,703</td>
</tr>
<tr>
<td>Virginia Commonwealth University</td>
<td>Richmond</td>
<td>1</td>
<td>$352,172</td>
</tr>
<tr>
<td>Virginia Polytechnic Inst. and St. Univ.</td>
<td>Blacksburg</td>
<td>2</td>
<td>$880,974</td>
</tr>
</tbody>
</table>
### NIH R15 Awards at ODU in the Past 4 Years

<table>
<thead>
<tr>
<th>Department</th>
<th>Start Year</th>
<th>Awards</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology</td>
<td>2012</td>
<td>1</td>
<td>$446,056</td>
</tr>
<tr>
<td>Engineering</td>
<td>2010</td>
<td>1</td>
<td>$371,637</td>
</tr>
</tbody>
</table>
Strategies of Successful PIs

• Contact program official
• Cover letter
• Include a collaborator or consultant if you don’t have the necessary expertise or resources
• Understand the review criteria and the review criteria questions
  ▫ Each question should be addressed in the application
• In A1, respond thoroughly and diplomatically to all of the reviewer comments
• AREA grant is research award, not training award
  ▫ Focus on hands-on research not course work
  ▫ Describe PI’s role in research & supervision
Strategies of Successful PIs

• Address the AREA-specific programmatic goals in the application
  ▫ **Support meritorious research**
    • Research should contribute to the field
    • Results should be publishable
  ▫ **Expose students to research**
    • Profile of available and former students at the institution
    • Experience of the investigator in working with students
    • How students will be incorporated into the research project
    • How students will benefit from this research experience
  ▫ **Strengthen the research environment**
    • The suitability of the institution for an award
    • The impact the AREA grant will have on the institution
There is no Winning Formula

- No one can give specifics of what will score well
- Do not treat a successful [or not] application as an iron-clad template [of what not to do]
  - How many students
  - How many papers
  - What % of a collaborator
  - What % of special facilities
  - What amount or type of institutional support
  - What type of environment
Frequently Asked Questions

How many pages are allowed for the Research Strategy? 12 page maximum
The Research Strategy must include Significance, Innovation, and Approach, as well as Preliminary Studies or a Progress Report.

What should I do if I don't get funded?
Be prepared to revise and resubmit your application.

What is a fundable score for an AREA application?
There is no predetermined fundable score for an AREA application. Each Institute or Center has the authority and responsibility to make funding decisions based on priority score, program balance and program priorities.

Is there a separate budget allocated for AREA grants?
No. In Fiscal Year 2002, the funds for the AREA program were moved from the Office of the Director to the various ICs.
Grant writing for success – writing the application

- Start planning EARLY
- Develop your good idea
- Use the NIH webpage (www.nih.gov)
- Talk to your NIH program official(s)
- Provide a good presentation
- Align with review criteria
- Identify collaborators
- Seek advice and feedback from colleagues
So WHY plan and plan early?

You’re more likely to get...

• A compelling scientific question
• Appropriate NIH institute
• Appropriate review committee
• Adequate time to complete
  • A major stress reducer

...A better grant application
Grant writing for success – writing the application

• Start planning **EARLY**
• Develop your good idea
• Use the NIH webpage ([www.nih.gov](http://www.nih.gov))
• Talk to your NIH program official(s)
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• Identify collaborators
• Seek advice and feedback from colleagues
Good Idea

• Does it address an important problem?
• Will scientific knowledge be advanced?
• Does it build upon or expand current knowledge?
• Is it feasible…
  • To implement?
  • To investigate?
  • In my hands/lab?
Specific aims

• Grab the reader immediately
• State long-term objectives AND expected impact
• Explicitly state hypotheses and research question
Grant writing for success – writing the application

- Start planning **EARLY**
- Develop your good idea
- Use the NIH webpage (www.nih.gov)
- Talk to your NIH program official(s)
- Provide a good presentation
- Align with review criteria
- Identify collaborators
- Seek advice and feedback from colleagues
Program Official

• Responsible for the programmatic, scientific, and/or technical aspects of a grant
• Provides scientific guidance to investigators pre- and post-award
• Develops initiatives
• Provides post-award oversight
• Research Management Review, Volume 17, Number 1, Fall/Winter 2009, pages 10-17 – “Can We Talk?”. Robert Porter, University of Tennessee
Grant writing for success – writing the application

• Start planning **EARLY**
• Develop your good idea
• Use the NIH webpage ([www.nih.gov](http://www.nih.gov))
• Talk to your NIH program official(s)
• Provide a good presentation
• Align with review criteria
• Identify collaborators
• Seek advice and feedback from colleagues
Review Criteria

Overall impact – the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved

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

• To view the review criteria and considerations for unsolicited R15 applications, visit: http://grants.nih.gov/grants/peer/critiques/rpg.htm and Review Criteria at-a-glance.

• See the following documents for more information on scoring and critique templates: Scoring System and Procedure, Critique Template Instructions

• A comprehensive list of Guidelines for Reviewers is available at: http://grants.nih.gov/grants/peer/reviewer_guidelines.htm
Review Criteria

• Significance
  • Does the project address an important problem or a critical barrier to progress in the field?
  • Will scientific knowledge, technical capability, and/or clinical practice be improved?
  • How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?
  • If funded, will the AREA award have a substantial effect on the school/academic component in terms of strengthening the research environment and exposing students to research?
Review Criteria

• Investigator(s)
  • Are the PD/PIs, collaborators, and other researchers well suited to the project?
  • Appropriate experience/training?
  • Ongoing record or accomplishments that have advanced their field?
  • If project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise?
  • Suitable experience in supervising students in research?
Review Criteria

• 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 interventions?
Review Criteria

• 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?
  • Does the application provide sufficient evidence that the project can stimulate the interests of students so that they consider a career in the biomedical or behavioral science?
Review Criteria

- **Environment**
  - Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed?
  - Does the application demonstrate the likely availability of well-qualified students to participate in the research project?
  - Does the application provide sufficient evidence that students have in the past or are likely to pursue careers in the biomedical or behavioral sciences?
Grant writing for success – writing the application

• Start planning EARLY
• Develop your good idea
• Use the NIH webpage (www.nih.gov)
• Talk to your NIH program official(s)
• Provide a good presentation
• Align with review criteria
• Identify collaborators
• Seek advice and feedback from colleagues
Frequently Asked Questions

Where can I get help preparing my application?
- Program staff

- Many NIH Institutes publish guides and tips on their Web sites, some of which are listed here http://grants.nih.gov/grants/grant_tips.htm

- Additional useful resources include:
  SF424 (R&R) Application and Electronic Submission Information and eRA Commons

- ODU – Research Foundation & Office of Research that can assist you with developing your application
**They’re here to:**

*Advise* faculty on sponsor instructions.  
*Assemble* required elements.  
*Develop* budgets and justifications.  
*Obtain* documentation from external partners.  
*Review* compliance with agency guidelines.  
*Review* sponsor’s legal terms and conditions.  
*Interact* with sponsor on all non-technical matters.  
*Serve* as authorized official for signatures and electronic submission.
We’re here to:

Search for a funding opportunity that is a fit for your project and experience.
Assist with assembling multi-disciplinary collaborative teams for projects.
Analyze solicitations and guidelines to clarify requirements and ensure eligibility.
Provide guidance in writing, including outlines, checklists and editing support.
Coordinate and link to other grant-related resources.
Help incorporate proposal strategies that may increase the likelihood of funding.
Introduce the ODU Research Foundation’s grant submission and administration functions.
<table>
<thead>
<tr>
<th>College</th>
<th>Specialist</th>
<th>Location</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batten College of Engineering &amp; Technology</td>
<td>Karina Arcaute, PhD</td>
<td>ESB 1104 C</td>
<td>683-4478</td>
<td><a href="mailto:karcaute@odu.edu">karcaute@odu.edu</a></td>
</tr>
<tr>
<td>College of Health Sciences</td>
<td>Elizabeth Saltzman, PhD</td>
<td>IRP 1, #203</td>
<td>683-3579</td>
<td><a href="mailto:esaltzma@odu.edu">esaltzma@odu.edu</a></td>
</tr>
<tr>
<td>College of Sciences</td>
<td>Steve Landowne, PhD</td>
<td>Oceanography #123</td>
<td>683-3655</td>
<td><a href="mailto:slandown@odu.edu">slandown@odu.edu</a></td>
</tr>
<tr>
<td>Darden College of Education</td>
<td>Melissa Hallman, MPA</td>
<td>Education, #167-10</td>
<td>683-5103</td>
<td><a href="mailto:mthallma@odu.edu">mthallma@odu.edu</a></td>
</tr>
<tr>
<td>College of Arts &amp; Letters</td>
<td>Jackie Stein, MA</td>
<td>IRP 1, #203</td>
<td>683-6758</td>
<td><a href="mailto:jstein@odu.edu">jstein@odu.edu</a></td>
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</table>

**Director of Research Development**
Karen Eck, PhD
IRP 1, #203
683-3707
keck@odu.edu