Defense Threat Reduction Agency
Amendment 1 of the Basic Research Broad Agency Announcement
Webinar Briefing to Potential Proposers
Questions and Answers

Wednesday, 07 December 2011, 1300-1500

On December 7, 2011 the Defense Threat Reduction Agency conducted a webinar to promote Amendment 1 of the Basic Research for Combating Weapons of Mass Destruction Broad Agency Announcement to the research community. The briefing slides from this webinar are posted at the following link: http://center.ncet2.org/index.php?option=com_content&view=article&id=411.

The questions below were asked following the conclusion of the briefing. The Defense Threat Reduction Agency answered most of the questions in brief as part of the question and answer portion of the webinar. The Defense Threat Reduction Agency is providing this written follow-up for all of those that attended the webinar and to the greater at large community.

1. ***Question***: General: Can a small business engage a foreign university, e.g., Cambridge University, as its academic partner (sub-awardee) to satisfy the at least 30% contribution?
   Answer: The short answer is yes, the requirement is only that there be a 30% contribution by a degree-granting college/university and yes, that may be a foreign university. For additional information regarding eligibility, please see Section III.1 of the Broad Agency Announcement.

2. ***Question***: General: Can a foreign national be a principal investigator or part of a proposing team from the university?
   Answer: Yes, a foreign national may be a principal investigator. A foreign national may also be part of a proposing team for a university.

3. ***Question***: General: We are H1B visa holders working as assistant professors in US accredited universities. Are we eligible to be the principal investigator?
   Answer: Yes, if the visa holder is appropriately and correctly employed by the accredited university.

4. ***Question***: General: For the general Broad Agency Announcement or Service Call, the single scope, multi-disciplinary or young investigator awards, are the $150K, $375K, and $100K awards direct cost only or do they include both direct and indirect costs? Indirect costs are to be capped at 35% of direct costs?
   Answer: The dollar amounts are TOTAL value; all costs are included in the dollar amount specified. There is currently no 35% limitation in the appropriation for fiscal year 2012 funds. However, that does not mean that 35% limitation will (or will not) occur for fiscal year 2013. We do not know yet, and we will address that particular question in the announcement of the award and remind the prospective bidder of the 35% rule if it does, or does not, apply. Period B is anticipated to be made with fiscal year 2013 funds.

5. ***Question***: General: Could you please tell us how national lab can participate or collaborate with a university on an application?
   Answer: A national lab may participate as a sub-awardee to any particular, eligible prime (as defined in Section III.1 of the Broad Agency Announcement). That is, if there is a university that is prime, the national lab may be a sub-awardee. If the prime falls under one of the other categories of eligibility (not a university), remembering that 30% of the award must go to a university, the national lab could also be a sub-awardee.

   With respect to the collaboration question, collaborations with universities are encouraged; however, the university must be the prime awardee. This holds true for both DOE and DoD labs.

6. ***Question***: General: Eligibility for Young Investigator Award, is it a requirement for being US citizen or green card holder, is it okay for H1B visa holder?
   Answer: There is no requirement in the Broad Agency Announcement for principal investigators to be U.S. citizens or green card holders. Principal investigators may be H1B visa holders as long as they are appropriately and correctly employed by one of the eligible entities detailed in Section III.1 of the Broad Agency Announcement.

7. ***Question***: General: Is there an SBIR/STTR component to the Broad Agency Announcement program?
   Answer: As part of this Broad Agency Announcement, no. There is a separate Small Business Innovative Research proposal capability within the Defense Threat Reduction Agency, but it is not part of this Broad Agency Announcement. For additional information regarding all of the opportunities with the Defense Threat Reduction Agency, please refer www.dtra.mil.

8. ***Question***: Topic 7: Will only numerical simulations be funded, or will experimental work to produce benchmarks also be considered?
   Answer: At this time, experimental work will not be considered. Topic 7 is specifically seeking modeling and in particular, micro-and macro-meso scale coupling.

9. ***Question***: General: Why is there such an emphasis only in nuclear weapons?
   Answer: In general the Broad Agency Announcement is not limited to nuclear weapon effects or scenarios—the emphasis is on Combating Weapons of Mass Destruction, of which nuclear weapons represent one category. For this particular amendment to the Broad Agency Announcement the topics of interest are based on the most recent analysis of the Combating Weapons of Mass Destruction requirements. Any appearance of an emphasis only in nuclear weapons is coincidental.

10. ***Question***: General: This is an amendment. Do the focus areas mentioned in the original Broad Agency Announcement still apply?
    Answer: For clarification, the Broad Agency Announcement does not use focus areas. There are five thrust areas that remain unchanged for every amendment issued; and there are topics the do change with the amendments. No; the topics for Period A of the Broad Agency Announcement are closed and white papers are not being accepted. Amendment 1 of the Broad Agency Announcement published the topics for Period B. Only white papers that are responsive to the topics outlined for Period B will be evaluated.

11. ***Question***: General: What would be the deciding factor(s) that would justify a contract, rather than a grant, to a small business?

Answer: For this particular Broad Agency Announcement, only grants will be awarded. Contracts will not be awarded under this Broad Agency Announcement.

12. ***Question***: General/Technical: In the past, the Defense Threat Reduction Agency's Broad Agency Announcement has specifically excluded the examination of Si-based microelectronics. Is there any type of exclusion in this set of topics?
    Answer: For this Broad Agency Announcement, there is no specific topic that addresses microelectronics. There are topics that have indirect issues associated with microelectronics for another reason and those would not preclude silicon-based microelectronics studies as relevant to the particular topic.

13. ***Question***: General: Could you comment on how small business can participate with University? So university will be the primary with minimum 30% contribution?
    Answer: Small businesses with a portfolio predominantly in basic research may be a prime if they have a minimum 30% contribution from an accredited degree-granting college/university. The small business can also participate as a sub-awardee to a prime university. See Section III.1 of the Broad Agency Announcement for additional information on eligibility requirements.

14. ***Question***: General: Can a proposal be only theoretical in nature? Or do you require always an experimental component?
    Answer: Yes, the proposal may be only theoretical. The more cutting edge the proposed work is as it relates to the Combating-Weapons of Mass Destruction (C-WMD) mission as specified in the topic, the more likely it will be only (or primarily) theoretical. We are looking for the true, novel ideas that have the potential to be game-changers in the community of science. No, we do not always require an experimental component.

15. ***Question***: Topic 7: Are the Micro- and Meso-Macro multi-scale modeling interest limited to explosive effects or does it expand to biological and chemical interaction modeling as well?
    Answer: At this time, the topic is limited to explosives or heterogeneous energetic materials, not to other biological or chemical interactions.

16. ***Question***: Topic 4: May the robotics topic address underlying electronics of robotic systems?
    Answer: Yes, they can address the underlying electronics as long as they address the radiation hardening or weapons of mass destruction component of the topic as it applies to electronics.

17. ***Question***: Topic 1: Regarding zeolite application, do you look for certain target chemical elements and detection limits?
    Answer: The Defense Threat Reduction Agency will not suggest specific elements or detection limits.

18. ***Question***: General: Another question about US national laboratory participation. Can the academic participation requirement be satisfied if (one of) the principal investigator(s) is employed by a university (faculty, postdoc, or graduate student), but the research is conducted at the national laboratory?
    Answer: In general, as long as the university is the one making the submission of the proposed project there should be no issue. If the research is conducted at the national laboratory, it would be a partnership arrangement between the prime (the university) and the sub (the national laboratory). The key to this question is who makes the submission: the university business office

needs to make the submission, as national laboratories are not eligible to be the prime awardee under this Broad Agency Announcement.

19. ***Question***: Topic 5: Will purely experimental proposals be considered?
    Answer: Yes, with the understanding that the onus is on the proposer to make sure they address the topic, as well as the evaluation criteria.

20. ***Question***: General: A multidisciplinary proposal should have more than one principal investigator in different departments? Or is just one principal investigator associated with more than one department also accepted?
    Answer: As detailed in the Broad Agency Announcement, proposed research must involve fundamental contributions by multiple investigators from diverse disciplines (proposal must be multidisciplinary). Investigators may be from a single institution or multiple institutions. Thus, the multidisciplinary proposal requires more than one principal investigator. Appointments may be within a department or across different departments/institutions as long as the specific disciplines of each investigator are diverse. It is very important (and paramount if all investigators are within one department) to differentiate the multidisciplinary contributions of the investigators in the white paper.

21. ***Question***: Topic 9: Do you have some specific nanomaterials for the application? What specific properties do you expect for your application?
    Answer: No, the Defense Threat Reduction Agency does not have specific nanomaterials in mind for the application and are not listing any specific properties for the nanomaterials, that will be left up to the proposer. Additionally, the broad agency announcement is soliciting basic research without application

22. ***Question***: General: There are two different funding levels for the Defense Threat Reduction Agency only, and one that has the Defense Threat Reduction Agency with the Joint Science and Technology Office. Which topics are identified for each case?
    Answer: For Amendment 1 (Period B) of the Broad Agency Announcement there are no Joint Science and Technology Office topics. There are only Defense Threat Reduction Agency Research and Development topics.

23. ***Question***: General: As far as I can tell, the Defense Threat Reduction Agency has abandoned its previous interest in basic research relating to biological chemistry, biotechnology, bio-inspired materials, synthetic biology, or other areas at the interface between chemistry and molecular biology. Is this true? (yet another set of studies in the well-trodden "reactive oxygen" does not count, as it is backward looking)
    Answer: The Defense Threat Reduction Agency is still interested in the above mentioned topics, which will appear in future focused Broad Agency Announcements.

24. ***Question***: Topic 8: Does stand-off detection using, e.g. NMR or Photo fission, fall under this topic?
    Answer: The scope of Topic 8 does not exclude exploration that involves equipment with stand-off location; however the white paper should be relevant to the objective stated in the topic. Consideration of novel methods that are generally relevant to improving the understanding of potential nuclear events may be considered. White papers should address basic research, not applied research or incremental development of specific devices.

25. ***Question***: Topic 8: Seismic has traditionally been used to detect and identify nuclear tests, as the webinar noted. It sounded as though seismic proposals would not be of interest. However, will seismic proposals examining BASIC research, which is still needed to advance National Capability, be accepted? Thank you.
    Answer: The emphasis in this topic is not on seismic, but if there was a proposal that came in that really pushed the bounds of basic scientific research in this seismic area (i.e. very new and very novel) it would be considered.

26. ***Question***: General: Is there a limit to the number of proposals that can be submitted from one principal investigator? Is there a limit to the number of proposals that a principal investigator/co-principal investigator?
    Answer: There is no limit on the number of pre-application white papers and invited proposals that a principal investigator may submit in response to this BAA as long as the principal investigator does not propose more than 100% of his/her time in doing so. Refer to Section III.4.2 for additional information.

27. ***Question***: General: What is the total amount available for awards?
    Answer: This amount will not be determined until an appropriation is received.

28. ***Question***: General: May I know is there a requirement for the principal investigator/co-principal investigator number?
    Answer: No, there is not a requirement for the number of principal investigators or co-principal investigators. However, for the multi-disciplinary awards, there should be at least two.

29. ***Question***: Topic 5: Are methods to produce better long distance laser propagation covered by this topic or must a specific use of the laser be studied?
    Answer: The white paper must address the relevance of this basic research to the Defense Threat Reduction Agency mission. If propagation distance is relevant to the mission, then it would be considered.

30. ***Question***: Topic 7: The research areas in the Broad Agency Announcement are more fundamental than those shown in the slide. I presume basic research proposed in the Broad Agency Announcement research areas should be explicitly linked to the specific multi-scale/multi-physics?
    Answer: For this topic, it is described as multi-scale/multi-physics, but specific to heterogeneous explosives, reacting systems, or energetic materials. As written in Topic 7 of the Broad Agency Announcement, the multi-scale/multi-physics reacting systems should focus on heterogeneous energetic material.

31. ***Question***: Topic 9: Will the detection of explosives be of interest to the Defense Threat Reduction Agency?
    Answer: Generally, no. The Defense Threat Reduction Agency is interested in methods and materials used in security, storage or transport of Weapons of Mass Destruction components. So the direct detection of explosives is not of interest.

32. ***Question***: General: Biotechnology, bio-inspired materials, and molecular biology. In the past, the Defense Threat Reduction Agency has had topics in these broad areas. Indeed, in the March 2011 Broad Agency Announcement, it had such topics, received proposals that covered them, and then

(after multiple proposals were prepared and received) canceled the topic and declined to review the proposals submitted. Does this represent the end of the Defense Threat Reduction Agency's interest in basic research in these areas? Or can we expect topics in these areas to emerge in the future?
Answer: The Defense Threat Reduction Agency retains considerable interest in a wide range of basic research topics including but not limited to material science, biological chemistry, biotechnology, synthetic biology, other areas at the interface between chemistry and molecular biology. Efforts aimed at refining topics in these and related areas are underway and they will appear in future focused Broad Agency Announcements.

33. ***Question***: General: Can you speak more to the self-registering for peer review? Thanks!
Answer: Self-registration can be done through the Defense Threat Reduction Agency Basic and Fundamental Research Community Portal which can be found at www.dtrasubmission.net/portal. See the Quick Links titled "For Proposal Evaluation & Peer Reviewer Registration". Registration involves identifying areas of expertise and willingness to be able to take on the responsibilities for peer review. Note that reviewers are selected based on their technical expertise to assist with the review of proposals for each Period under the Broad Agency Announcement. Please also note that qualified reviewers are often not selected because of the conflict of interest rules that the Defense Threat Reduction Agency has chosen to follow for this Broad Agency Announcement.

34. ***Question***: General: Are there specific program managers for each topic, and if so, is it possible and/or encouraged to contact them?
Answer: The accepted way of contacting program managers responsible for each topic is to use the email addresses specified in the Broad Agency Announcement. Please refer to Section VII of the Broad Agency Announcement for the email addresses.

35. ***Question***: General: Please describe the key differences between the general Broad Agency Announcement and the Service Call.
Answer: The key difference is the eligibility criteria. In brief, DoD degree-granting academic institutions are eligible to apply to the Service Call. Three entities are eligible to apply to the Broad Agency Announcement: 1) degree-granting academic institutions, 2) industrial/commercial basic research centers, including small businesses with a portfolio predominantly in basic research proposing a project with significant participation (minimum 30% of total effort value on the proposed project) by one or more accredited degree-granting colleges and/or universities, and 3) not-for-profit organizations/basic research centers with a portfolio predominantly in basic research proposing a project with significant participation (minimum 30% of total effort value on the proposed project) by one or more accredited degree-granting colleges and/or universities. Additional information regarding eligibility criteria may be found in Section III.1 of the Broad Agency Announcement.

36. ***Question***: General: Can potential proposal ideas be discussed with Defense Threat Reduction Agency program managers?
Answer: Only through questions submitted through the email address points of contacts published in the Broad Agency Announcement (see Section VII). Dialogue that assists the applicants in developing better pre-application white papers and invited proposals is encouraged, e.g. asking a specific question on clarification of the research topic. However, requests for pre-review of specific white paper ideas will generally not be answered

37. ***Question***: General: Should initial proposal budgets be submitted for 5 year periods--or for 3 years, with consideration for the additional 2 years submitted at a later time during the proposals period of performance?
Answer: The predominance of awards made under this Broad Agency Announcement will be 3-year base period awards with two, 1-year options. There is no requirement that a proposer provide a proposal that spans the 5-year award period; however, there is also no requirement that limits the proposer from outlining a 2-year project. If there is interest in a 5-year project, it should be proposed as such with care taken to outline the activities with a budget appropriate for a 3-year base period, and then separately include, two, 1-year options.

38. ***Question***: General: Can one single principal investigator with appointments in the departments of physics and chemistry be the single principal investigator of a multidisciplinary proposal? (Notice that the principal investigator has two different specializations in each department)
Answer: No. The Broad Agency Announcement clearly defines Multidisciplinary Awards as follows: "Research projects that involve a comprehensive program of innovative research in an interdisciplinary area with potential for high impact. The proposed research must involve fundamental contributions in research by ***multiple investigators*** from diverse disciplines (proposal must be multidisciplinary). Investigators may be from a single institution or multiple institutions. Research must support multiple undergraduate, and/or graduate students, and/or postgraduate students."

39. ***Question***: Topic 1: Regarding "exploration of zeolites as adsorbent," is this limited to zeolites only? Can a proposer submit a white paper on some other sorbent material?
Answer: No, the exploration is not limited to zeolites only. Yes, the proposer may submit a white paper on some other sorbent material.

40. ***Question***: General: Where can we find the charts you presented today? Thanks!
Answer: The presentations will be posted on a publically available website following the webinar: http://center.ncet2.org/index.php?option=com_content&view=article&id=411

41. ***Question***: General: Can different principal investigators in a multidisciplinary proposal be from the same department?
Answer: Appointments may be within a department or across different departments/institutions as long as the specific disciplines of each investigator are diverse. It is very important (and paramount if all investigators are within one department) to clearly identify the different disciplines and the relevance of the different disciplines to the proposal and the topic being addressed.

42. ***Question***: Will THz (terahertz)-based detection and generation fall under any of the topics?
Answer: Perhaps with regard to laser filamentation, in which case you would have to be using a laser filamentation process in order to generate THz signals.

43. ***Question***: General: This question is very relevant to the general audience, and should not be mischaracterized by the panel as "commentary". Many listeners this afternoon are interested in hearing the Defense Threat Reduction Agency's thoughts on its future involvement in basic research at the interface between chemistry and biology, as it influences the plans of many potential respondents. Can we expect, or should we not expect, any future amendments to this Broad Agency Announcement that restores old topics, or creates new topics, in the area of molecular biology?

Answer: Yes, the Defense Threat Reduction Agency retains considerable interest in a wide range of basic research topics including but not limited to material science, biological chemistry, biotechnology, synthetic biology, other areas at the interface between chemistry and molecular biology.

44. ***Question***: Can a single principal investigator receive multiple awards in different topical areas?
    Answer: Yes, with the caveat that there is understandably a certain amount of expertise that is required for different topical areas and as long as a single principal investigator can demonstrate that expertise and also does not propose more than 100% of his/her time in doing so.

45. ***Question***: General: What date should the PIs use if they are selected for a full proposal? Should it be Oct 1, 2012, since that is when you think that funding will be available? Since students can't start working on a project mid-semester, will it be okay if they don't start until January 2013?
    Answer: For planning purposes, the use of 1 October 2012 is sufficient. During the award process, rates are verified. If a significant delay in the award timeline occurs, updated cost documents will be requested. As long as the proposal clearly includes the support of students which aligns to the intent of the Broad Agency Announcement, the delayed start is acceptable.

46. ***Question***: Topic 1: Will advanced filters be considered rather than adsorbents?
    Answer: Basic research for advanced filters may be considered if the proposed research is relevant to the topic (Topic 1).