



U.S. CIVILIAN RESEARCH & DEVELOPMENT FOUNDATION

PROGRAM ANNOUNCEMENT

University Centers of Excellence Program (UCEP), 2007

Yerevan State University (YSU)
National Foundation of Science and Advanced Technologies (NFSAT)
U.S. Civilian Research & Development Foundation (CRDF)

I. Introduction

The National Foundation of Science and Advanced Technologies (NFSAT), Yerevan State University (YSU), and the U.S. Civilian Research & Development Foundation (CRDF) announce the University Centers of Excellence Program (UCEP). UCEP will support the establishment of University Centers of Excellence (UCE) in the basic and/or natural sciences at Yerevan State University.

Each UCE will integrate research into the academic curriculum, increase research opportunities for students and junior scientists, and support advanced, high quality research and openly accessible laboratory facilities that stimulate institutional collaborations within Armenia and internationally.

Grants under the UCEP program will be awarded via a merit-based, internationally peer reviewed competition under the terms of this program announcement, and up to US\$300,000 will be available to fund up to three grants. Each 24-month grant will be for up to \$100,000, with 50% of the funding to be spent on major equipment purchase and 50% to be spent on other costs as detailed in the Budget Requirements in Section VII.

The deadline for proposal submission to NFSAT and CRDF is 18:00 Armenian time on 2 April 2007. The competition results will be announced in August 2007.

II. Program Guidelines

A. Program Overview

The objective of the UCEP program is to fund centers of excellence to be housed within YSU that strengthen the academic curriculum of the University, provide new research opportunities, foster development of students and young scientists, and establish productive and sustainable collaborations (within the University, throughout Armenia, and internationally).

There will be no limit on the number of applications submitted to the program, but all applications submitted must strictly adhere to the eligibility requirements stated in II C below.

For explanatory purposes or for the sake of clarification, this Program Announcement may be translated into one or more languages other than English. In the event of discrepancies between such translations and the English-language version, the English-language version will be definitive in determining the interpretation of any provision of this Announcement.

NFSAT will offer a UCEP Proposal Writing Seminar, and all potential applicants to the program are strongly encouraged to attend this seminar prior to proposal submission. The seminar schedule is available at <http://www.nfsat.am>

B. Funding and Background

Funding for this program comes from both Armenian and U.S. sources: 50% of the available funding (US\$150,000) is provided by YSU and 50% of the available funding (US\$150,000) is provided by NFSAT, under a grant from CRDF. The UCEP program will provide a maximum of US\$300,000 on a competitive basis to establish up to three University Centers of Excellence at YSU. The funding decisions in this competition will be made following international standards for merit-based, peer reviewed grant competitions. The grants awarded under this program will be administered by NFSAT.

NFSAT is an independent nonprofit foundation that was established in 1997. NFSAT promotes scientific research and technological development in Armenia through competitive grants, training, and technical resources. Further information on NFSAT may be found on-line at <http://www.nfsat.am>

YSU was founded in 1920 and is the largest university in Armenia. YSU has twenty-two academic departments and more than one hundred degree granting programs in the physical and natural sciences, social sciences, and medicine. YSU has circa 13,000 students presently enrolled in its degree-granting programs, and the University actively seeks and maintains international research and teaching collaborations. Further information regarding YSU can be found at <http://www.y-su.am>

CRDF is a nonprofit organization authorized by the U.S. Congress and established in 1995 by the National Science Foundation. This unique public-private partnership promotes international scientific and technical collaboration, primarily between the United States and Eurasia, through grants, technical resources, and training. Further information on the CRDF can be found at <http://www.crdf.org>

C. Eligibility Requirements

Applications to this competition must meet all eligibility requirements listed below. Applications that do not meet the eligibility requirements will not be considered for funding.

Each proposal submitted to the UCEP Program must have one Principal Investigator who has overall responsibility for the project, coordinating the work of all participating personnel and institutions.

1. Each Principal Investigator must:

- a) Be a full-time member of the faculty of YSU;
- b) Possess the degree of at least Ph.D. or the equivalent;
- c) Have at least five scientific publications in peer-reviewed scientific literature (three publications if the applicant is within six years of completion of the Ph.D. or the equivalent);

- d) Work full-time in a civilian research environment.
2. No individual may appear as a Principal Investigator in more than one proposal submitted to this program.
 3. The Principal Investigator and all team members who receive individual financial support must be citizens or permanent residents of Armenia who will reside in Armenia during the course of the grant period.
 4. All projects must be oriented toward civilian, non-military objectives and must be carried out in a civilian research environment.
 5. NFSAT and CRDF comply with all U.S. laws and regulations pertaining to the treatment of human subjects in scientific research and development. Applicants submitting proposals involving human research subjects should refer to the guidelines regarding research involving human subjects below in Section VI.
 6. Projects may include both basic and applied science and engineering activities, including technological development that is part of the innovation process leading to commercial products. Projects may include product and process engineering, but **not** commercial manufacturing or marketing.
 7. For-profit organizations or their employees may not receive funding from this proposal, although they may participate in the project at their own expense.
 8. Each proposal will be evaluated independently and may not be a part of, nor depend on the success of, other proposals submitted to this program or to other grant programs. More generally, the successful completion of the project proposed in the UCEP application must not depend on securing funds from other sources unless those funds are fully available and documented at the time of submission.
 9. NFSAT and CRDF strongly discourage the inclusion of an “administrative superior” of a Principal Investigator’s institution in a proposal in any role for which individual financial support is requested. For a definition of “administrative superior” and other details, please see the Budget requirements in Section VII.
 10. Researchers and students who are currently participating on other CRDF or NFSAT-funded projects (including under UCEP projects) are eligible to apply to this program. However, the total time worked on all CRDF and NFSAT awards cannot exceed 100% of full time effort. Accordingly, NFSAT and CRDF may require adjustment or elimination of the relevant request for individual financial support (IFS) prior to making a grant award.
 11. Principal Investigators who have participated on a previous CRDF or NFSAT award which is now closed are eligible to apply to this program provided that such participants are up to date on the submission of all progress reports, including final project reports. NFSAT or CRDF grantees who are delinquent in submitting progress reports may be restricted from participating in this program.
 12. NFSAT and CRDF reserve the right to restrict the participation of any individual or institution in this competition.

III. Proposal Submission

A. Submission Process

Applicants must submit proposals to both NFSAT and CRDF by 18:00 Yerevan time on 2 April 2007. Any proposal that is not submitted to both organizations in the manner described below may be deemed ineligible.

Submission to NFSAT

Completed applications must be submitted to NFSAT no later than 18:00 Armenian time on 2 April 2007. Applicants must provide

- Three original hardcopies; one each in Armenian, English, and Russian, printed in standard fonts. Hardcopy applications submitted to NFSAT must include the original signatures of the Principal Investigator and the YSU Representative on the cover sheet (Form A). NFSAT will confirm receipt of proposals via e-mail messages to the Principal Investigator and YSU official.
- Three electronic copies, one each in Armenian, English, and Russian. When the electronic copies are submitted to NFSAT through the e-mail given below, the subject of the e-mail must be "UCEP competition".

NFSAT will not accept fax submissions.

Applications to NFSAT can be sent or hand delivered to:

National Foundation of Science and Advanced Technologies (NFSAT)
26, Azatutyan Ave
Yerevan, Republic of Armenia
Tel: (374-10) -288-192
Fax: (374-10) -281-380
E-mail: info@nfsat.am

Submission to CRDF

Completed applications must be submitted electronically to CRDF no later than 18:00 Yerevan time on 2 April 2007. All submissions must be made using CRDF's electronic proposal submission website for the UCEP competition:

<http://www.crdf.org/ApplicationForms/apps.html>

Proposals may be submitted through this site anytime after 15 March 2007 up until the deadline. Proposals should be submitted only ONCE, by the Principal Investigator. Please note that the electronic proposal must be submitted in its entirety, at one time. At the conclusion of the electronic submission process, an automatic confirmation and verification message will be sent immediately to the Principal Investigator, as well as to the YSU Representative. Further instructions on electronic proposal submission are available at the CRDF website. A hardcopy of the proposal is not required to be submitted to CRDF at any time.

B. Changes After Submission

All proposals must be complete when submitted to NFSAT and CRDF. Any proposal not containing all required elements as indicated in this Program Announcement may be ruled ineligible. No modifications may be made to any proposal or requested by the applicant once it has been received by NFSAT and CRDF. However, NFSAT and CRDF may, at their initiative and discretion, request clarifications or additional relevant information from the applicant before accepting the proposal into the competition.

If circumstances have changed so significantly after the time of proposal submission that the project can no longer be carried out as proposed, the Principal Investigator or YSU representative should notify NFSAT and CRDF accordingly and indicate that they are withdrawing the proposal from the competition.

IV. Peer Review Process

A. Overview of Review Process

First Phase: Technical Review

All eligible proposals will be evaluated by expert reviewers. CRDF will obtain at least two reviews from U.S. researchers and NFSAT will obtain at least two reviews from Armenian or Eurasian researchers based on the evaluation criteria indicated below. Proposals that are judged meritorious in the written review process will be considered for the second stage. Letters will be sent to each applicant informing them whether or not they have advanced to the second stage and all applicants will receive the written reviewer comments.

Second Phase: Formal Site Visit

Each applicant team reaching the second stage will participate in a site visit by a team of Armenian and international experts. Instructions, guidelines, and criteria for this site visit will be distributed beforehand. The recommendations of the site visit experts, in consideration of the written reviews, will form the basis for choosing the proposal(s) that will be funded. The final funding decision will be announced in August 2007.

All funding decisions are final. Appeals of funding decisions will not be considered.

B. Evaluation Criteria

The expert reviewers will use the following criteria in the evaluation of proposals for this program. All of the following criteria will be considered in determining the merit of the proposal:

- **Personnel Capacity:** The expertise of the faculty, staff, and students in the proposed University Center of Excellence to accomplish the proposed research and educational objectives.
- **Integration of Research and Education:** The likelihood that the UCE will strengthen science education by integrating original research into the curriculum and improving access to research facilities for students and young researchers.
- **Research Plan:** The technical soundness of the proposed research approach and the adequacy of technical resources (existing and requested) available to the proposed University Center of Excellence. The adequacy and clear justification for the proposed budget, including the suitability of proposed equipment purchases.

- **Research Merit and Impact:** The likelihood that the UCE will substantively advance knowledge in one or more fields of science or engineering.
- **Access and Collaborations:** The clarity and feasibility of plans to facilitate access to the Center’s laboratory resources by the research community; the benefit and impact of any proposed institutional collaborations (N.B.: Only collaborations documented by institutional letters of support or intent will be considered).
- **Project Management and Sustainability:** The soundness of the project management plan, and project timeline, including the feasibility of carrying out the project and achieving objectives within the two-year project duration. The clarity and feasibility of the plan for sustainability.

C. Funding Priorities

In order to distinguish between proposals that are judged to be equally meritorious, as determined by expert review using the Evaluation Criteria above, the following funding priorities will be considered.

- Proposals that include former weapons scientists. CRDF and NFSAT strongly encourage the full-time inclusion of Armenian scientists and engineers formerly engaged in weapons research, including work on weapons of mass destruction, in the civilian research projects funded through this program. Participants who were formerly engaged in weapons research are required to indicate such experience on Form A of the UCEP proposal, using the Former Weapons Researcher Code List in Appendix 2 of this program announcement;
- Proposals in which the Principal Investigator is an early-career scientist who has completed the Ph.D. or *Kandidat* degree within six years of the proposal submission date;
- Proposals that include participants from outside Yerevan State University, including institutions outside of Yerevan;
- Proposals that include documented cost-shares from other sources;
- Proposals from Principal Investigators who have not previously received NFSAT or CRDF funding;
- Proposals from Principal Investigators who have published research in high-quality, internationally-distributed, English language peer-reviewer journals;
- Proposals that bring unique new equipment and research capacities to Armenia.

V. Proposal Contents

Each proposal must contain all of the elements described below. All proposals should be typed single-spaced; in a font size ≥ 10 points; with margins of 2.5 cm on the sides, top, and bottom. All pages including forms should be numbered consecutively in the bottom right corner. The proposal should present a plan for an up to two-year project.

1. **Cover Sheet (Form A).** The cover sheet should include basic information about the proposal, Principal Investigator, and YSU representative.
 - a) The YSU Representative should be an individual other than the Principal Investigator and should ensure all the conditions for the timely and successful implementation of the project.
 - b) The YSU Representative should be an individual with the formal, legal authority to commit the YSU to the proposal/contractual arrangement and to negotiate the financial terms of an award agreement with NFSAT.

2. **Abstract.** In one concise paragraph, summarize all relevant aspects of the project, with special attention to its objectives, methods, and potential results.
3. **Project Narrative.** The Project Narrative should clearly describe and justify the importance and feasibility of the Research, Education, and External Linkages to be carried out by the proposed University Center of Excellence.
 - a) **Research Rationale (up to 2 pages).** (What is the specific research to be carried out and why is the proposed research important?) The Research Rationale should succinctly describe the scientific problems to be addressed by the Center. The text should provide clear justification for the importance of the research. The research plan should indicate why a Center-based strategy is beneficial or necessary.
 - b) **Research Plan (up to 10 pages, including tables and figures).** (How will the proposed research be carried out?) Clearly describe the methods and approach to be used in carrying out the proposed research. Indicate clearly how each project objective will be accomplished. Also indicate the plans for publishing the results in international peer-reviewed journals. The Research Plan must include a description and justification for each major piece of equipment (equipment valued at US\$5,000 or more) to be purchased and list possible users at the YSU and elsewhere in Armenia. The Research Plan must also indicate how the research will be integrated with education and indicate the mechanisms for including students and young scientists in research projects in an ongoing and substantial way.
 - c) **Research Milestones/Timeline (1 page).** At the conclusion of the Research Plan, provide a one page project timeline that clearly indicates the significant steps in carrying out the proposed research during the two years of support from the UCEP grant. You may choose to use a Gantt chart to diagram this timeline, or you may prefer to provide a one-page written description, but be as specific as possible regarding the exact goals to be achieved and the work required to achieve those goals.
 - d) **Education Plan (up to 3 pages).** Describe the educational goals of the Center and how those goals will be achieved. Explain the importance of the educational goals of the Center and how the educational goals will be integrated with the scientific goals of the Center. Include a description of new academic courses to be developed by the Center.
 - e) **Linkages Plan (up to 1 page).** Provide a clear description of the specific plans to create or enhance linkages beyond YSU, including, where appropriate, other organizations within Armenia: organizations of the Academy of Sciences; industry; local, regional, or national governmental bodies; non-governmental organizations; or international institutions. All proposals should include at least preliminary plans for international linkages of some sort.
 - f) **Management Plan (up to 1 page).** Describe the management mechanism for the proposed UCE, including key personnel and their responsibilities for the students' supervision.
 - g) **Sustainability Plan (1 page).** Describe the plans for sustaining the Center after the grant is over and indicate how the Center will attract additional collaborations and funding sources.
 - h) **References Cited (up to 2 pages).** Provide a list of references cited in the project narrative.
4. **Curriculum Vitae (CV) for Principal Investigator and Personnel Forms for other participants.** Full CVs should be provided for the Principal Investigator and Personnel Forms (Form B) should be filled out for the other leading participants as well as students, young researchers, and technical staff. The PI's CV should include name, title, educational background, current and previous institutional affiliations with dates, area of expertise, contact data, and a list of up to 10 relevant peer-reviewed publications in research journals. Conference proceedings must be listed separately from journal publications.
5. **Budget (Form C).** Applicants should submit one budget Form C for the entire 24-month award period. Applicants should fill out Form C completely and accurately, referring to the *Budget*

Requirements section below for specific guidelines. The recommended budget is US\$80,000 for year 1 and no more than US\$20,000 for year 2.

6. **Budget Narrative (up to 3 pages).** A separate sheet explaining all budget items must follow the budget forms. This sheet should be clearly marked “Budget Narrative.” The funding requests in Form C must all be justified: it is particularly important for all expenses related to travel, the purchase of equipment, materials, and services to be itemized and justified. Applicants should refer to the *Budget Requirements* section below for additional guidance.
7. **Statement of Other Support (Form D).** The Principal Investigator and other leading participants must complete the Statement of Other Support (Form D), listing current and pending sources of support. This form provides additional helpful information for NFSAT and CRDF reviewers and panel members and does not improve or diminish chances for funding.
8. **Other Required Documents:** If applicable, the *IRB Protocol Summary Form* (discussed in the next section), Commitment Letter for Co-Funding, and letters of intent to collaborate, , and justification of IFS request for an administrative superior must be included in the application.

VI. Requirements for Proposals Involving Human Subjects Research

CRDF and NFSAT comply with all U.S. laws and regulations pertaining to the treatment of human subjects in scientific research and development. The CRDF and NFSAT policy on funding proposals involving human subjects research requires the U.S. Principal Investigator, the Armenian Principal Investigator, and the applicant institutions, to meet the following requirements.

1. All proposals involving human subjects research must adhere to CRDF’s policy and guidelines on funding support for projects involving human subjects. Please refer to the CRDF website at http://www.crdf.org/terms/terms_show.htm?doc_id=292607.
2. Each proposal involving human subjects research must include a completed *IRB Protocol Summary Form*, available for download from the CRDF website at http://www.crdf.org/granteeforms/granteeforms_show.htm?doc_id=305885, and related supporting documentation.
3. These materials, indicating an approval or an exemption of the project to use human subjects, must be submitted along with the proposal materials.

VII. Budget Requirements

NFSAT and CRDF will not consider any proposal requesting more than US\$100,000. In the case of an award, a project budget is subject to revision by NFSAT and CRDF staff. The UCEP applicants are responsible for determining their own budget within the bounds of these guidelines:

- **Individual Financial Support (IFS)** for senior scientists: up to US\$18,500 for up to 3 full-time researchers;
- **Stipend** for students: at least US\$11,500 for at least 4 full-time students;
- **Equipment** purchases for at least US\$50,000 (typically 1-3 major pieces of equipment);
- **Materials and Services** required for research (includes expendable supplies) and computer purchase (for up to a total of US\$7,000);

- **Travel** for at least two students for up to a total of US\$8,000;
- **Institutional Support** for up to US\$5,000 to pay for such expenses as repair of existing equipment and room renovations.

1. **Individual Financial Support.** Individual Financial Support (IFS) is defined as payments to individual project participants for work performed on the project, which means that during vacations, IFS will not be provided, and as rule only 11 months of payment per year will be permitted. NFSAT and CRDF calculate individual financial support based on the level of effort and the professional level of each participant. A month for full-time personnel is considered 22 days, with each day made up of 8 hours of work. Individual financial support for leading participants may not exceed an average of US\$280 per person, per month. Maximum IFS for the Principal Investigator may not exceed US\$350 per month and may not exceed US\$300 for a team investigator.
2. **Stipend.** Stipend is defined as additional payments to undergraduate and graduate students involved in the project. The total assigned for stipend payment on average may not be lower than US\$130 per person, per month. The maximum stipend should not exceed US\$150 per month. For the IFS of leading scientists, the Stipend payments will be made only for 11 months per year.
3. **Equipment.** This category of expenses must include purchase of major equipment which will be used to carry out the proposed project. Typically one to three different pieces of equipment will be proposed under this category. Non specific computers and/or their accessories can not be proposed under this category unless they are required for major equipment operation.
4. **Materials and Services.** Support for reagents and other materials to be used in the project implementation and research tools, including computers and telecommunications devices, additional English language training of early career researchers, subscriptions to scientific journals and telecommunications services. Any item of requested equipment valued at more than US\$1,000 must be specifically described and justified in the Budget Narrative.
5. **Travel.** Travel funds may be used for domestic travel within Armenia and support for travel to international scientific meetings, at least 2 (two) opportunities for travel must be provided for young scientists and students. The purpose and cost of all travel should be justified in the Budget Narrative. The following cost guidelines should be used in preparing the budget:
 - i. **International Transportation.** Lowest-cost applicable round-trip airfare from Armenia. Travel must be on U.S. carriers on all segments for which they are available, and is mandatory on transoceanic flights.
 - ii. **International Living Allowances.** For travel of two weeks or less, living allowances should follow U.S. government per-diem guidelines. Applicants should refer to a website listing current U.S. Government per-diem rates, such as http://www.gsa.gov/Portal/gsa/ep/contentView.do?programId=9704&channelId=15943&oid=16365&contentId=17943&pageTypeId=8203&contentType=GSA_BASIC&programPage=%2Fep%2Fprogram%2FgsaBasic.jsp&P=MTT. For research visits of more than two weeks, applicants may request \$2,000 per month or the prorated equivalent. These allowances cover all costs, including health insurance, which is required. The maximum single stay abroad for any one individual is two months per 12-month period of an award.
6. **Administrative Superiors.** An “administrative superior” is defined as an individual who has direct administrative authority over the Principal Investigator, and who works within the same division, laboratory, or unit as the Principal Investigator. Institutional leadership including university rectors and vice rectors and institute directors and deputy directors are also defined as administrative superiors. This definition does not apply to other individuals of higher "rank" within the institution but who work outside the division, laboratory or unit of the Principal Investigator. The responsibilities of an administrative superior include ensuring good working conditions for the research team to implement the project successfully and in due time.

CRDF and NFSAT generally discourage the inclusion of an administrative superior in a proposal in any role for which individual financial support is requested. For an administrative superior of the institution to be supported by CRDF and NFSAT, a written justification must be provided in the proposal. Both a detailed description of the anticipated contribution to the project and a justification of the proposed level of effort to be devoted to the CRDF/NFSAT-funded activity by the administrative superior must be included. This written justification will be evaluated in the proposal review process. All projects recommended for funding and that include support for an administrative superior of the institution will be assessed by CRDF and NFSAT as to the reasonableness of the participation of the administrative superior. CRDF and NFSAT may approve or decline to support the administrative superior's participation, or request that the level of effort be modified and certified by the administrative superior. An administrative superior will be required to submit a signed certification confirming his or her commitment to the level of support approved by CRDF and NFSAT.

VIII. Intellectual Property

CRDF and NFSAT make no claim to intellectual property rights under any award. The applicant should be familiar with and abide by the laws regarding intellectual property in Armenia and by the regulations regarding grants for research projects.

IX. Confidentiality

NFSAT and CRDF treat all proposals as confidential material and require all panelists, reviewers and site visit experts to respect the confidentiality of proposals. However, proposal authors are advised that successful proposals will be treated as being in the public domain. Therefore, at the author's discretion, if there is specific information in the proposal that is business-confidential and not intended for public dissemination, it should be clearly labeled as such at the top and bottom of the applicable page of the proposal. Such passages will be withheld from public distribution if the proposal is successful. Proposals that do not result in awards are not subject to public dissemination by NFSAT or CRDF.

Contact Information

For questions about the proposal submission process, or for further information about this program, please contact the CRDF or NFSAT offices below. ***Inquiries by e-mail are strongly encouraged and will result in prompt response.***

National Foundation of Science and Advanced Technologies (NFSAT)
26, Azatutyan Ave
Yerevan 375014, Republic of Armenia
Tel: (374-10) 28 81 92
Fax: (374-10) 28 13 80
E-mail: anna@nfsat.am
Deputy Chief Executive Officer: Anna Baghramyan

Checklist of Documents Required for Proposal Submission:

- #1** Cover Sheet (Form A)
- #2** Abstract
- #3** Project Narrative, including:
 - #4** Research Rationale
 - #5** Research Plan
 - #6** Research Milestones/Timeline
 - #7** Education Plan
 - #8** Linkages Plan
 - #9** Management Plan
 - #10** Sustainability Plan
 - #11** References Cited
- #12** Budget (Form C)
- #13** Budget Narrative
- #14** Principal Investigator Curriculum Vitae and other team member's Personnel Forms (Form B)
- #15** Statement of Other Support (Form D)
- #16** For proposals involving human subjects: (1) IRB/IEC Approval, (2); Human Subjects Governmental Approval; and (3) Confirmation of FWA

Form A
COVER SHEET FOR UCEP PROGRAM APPLICATION

I. PROPOSED CENTER NAME _____
Scientific Field(s) of Proposed Activity _____
Total Cost of Project US\$ _____

II. PRINCIPAL INVESTIGATOR – *is the primary person responsible for the program*

A. Name
Last _____ First _____ Patronymic _____

B. Sex M ___ F ___ C. Date of Birth (date/month/year) _____

D. Highest Degree Earned _____ Field _____ Year Awarded _____

E. Office Phone _____ Fax _____ E-mail _____

F. Professional Title/Position _____

G. Do you have any experience in weapons-related subjects? YES NO

If “Yes,” please provide the appropriate weapons code from **Appendix 2** describing this individual’s experience in the area to the right and provide a **brief description** of the weapons-related experience in the space below.

Weapons Researcher Code: _____

Description of weapons research:

H. Complete Mailing Address

Signature

Date

III. UNIVERSITY Representative (Rector or Vice-Rector)

A. Name
Last _____ First _____ Patronymic _____

B. Highest Degree Earned _____ Field _____ Year Awarded _____

E. Office Phone _____ Fax _____ E-mail _____

F. Professional Title/Position _____

Signature and Seal

Date

University Centers of Excellence Program

Form B: Personnel Data

(For all members of the team other than the Project Director. Please copy this page as necessary.)

Full Name (Last, First Patronymic/Middle)			
Current Position Institution Name Complete Mailing Address			
E-Mail Address		Fax Number	
Highest Degree and Year Awarded		Passport Number	
Sex (Male or Female)		Date of Birth (MM/DD/YY)	
Classification on Project (please check one)			
Project Manager <input type="checkbox"/>	Researcher/Engineer <input type="checkbox"/>	Technical/Scientific Support <input type="checkbox"/>	Student <input type="checkbox"/> Administrative/Clerical Support <input type="checkbox"/>
HAS THE INDIVIDUAL RECEIVED A GRANT UNDER A PREVIOUS NFSAT/CRDF PROGRAM?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
If "Yes," please indicate program and grant number.			
Does the listed individual have experience in weapons-related subjects?		<input type="checkbox"/> <small>Yes</small>	<input type="checkbox"/> NO
If "Yes," please provide the appropriate weapons code from Appendix 1 describing this individual's experience in the area to the right and provide a brief description of the weapons-related experience in the space below.			
Short Curriculum Vitae (past employment experience, educational history, and relevant publications):			

Form C
Proposed Budget for UCEP Project

Category				Year 1	Year 2	Total
1.	Individual Financial Support (IFS)					
	Name (First and Last)	Title	# of Days Per Month	# of Months		
	a.					
	b.					
	c.					
2.	Young Investigator Support, including					
	a. Stipends					
	Name (First and Last)	Status	# of Days Per Month	# of Months		
	a.					
	b.					
	c.					
	d.					
	b. Additional courses or training					
3.	Major Equipment					
	a.					
	b.					
	c.					
4.	Materials and Services (items over US\$1,000 must be justified in the budget narrative)					
	a.					
	b.					
	c.					
	d.					
	e.					
	f.					
5.	Travel					
	a. International (including Former Soviet Union)					
	b. Living allowance/Per diem					
	c. Domestic (only in Armenia)					
	d. Living allowance/Per diem					
6.	Institutional Support (maximum US\$5,000)					
	a. Repair of space					
	b. Furniture purchase					
	c. Other expenses					
7.	Trainings/Conferences					
8.	Other Expenses (please list)					
	Total Project Cost					

FORM D
OTHER SOURCES OF SUPPORT FOR LEADING RESEARCHERS
(For the Leading Participants of the research team. Please copy this table as necessary.)

Investigator Name			
Support	<input type="checkbox"/> Current	<input type="checkbox"/> Planned in Near Future	<input type="checkbox"/> "None"
Project/Proposal Title			
Source of Support			
Award Amount		Period Covered	
Location of Research			

Sample Commitment Letter for Co-Funding

Letterhead

Nr. _____

Date _____

To: Dr. Harutyun Karapetyan
Chairman
National Foundation of Science & Advanced Technologies

Dear Dr. Karapetyan:

This letter represents a commitment by *[co-funding organization]* to provide *[specify space and facilities and/or funding amount in US\$]* as a contribution to *[name of UCE]*, Project Director *[Name]*, if the funding proposal submitted to the National Foundation of Science & Advanced Technologies.... University Centers of Excellence Program (UCEP) is granted an award.

The funds will be provided to cover the following expenses: *[List of expenses covered by the co-funding organization]*,

[Co-funding organization] guarantees that it will begin payments according to the Budget and Project Schedule approved by NFSAT.

Sincerely,

Print Name and Title

Signature and Stamp

APPENDIX 1

List of General Scientific Areas and Sub-Disciplines

<p>Biological & Biomedical Sciences & Engineering Agriculture & Agronomy Bacteriology Behavioral Biology Biochemistry Biophysics Biotechnology Botany (Plant Biology) Cardiology Cell Biology Conservation Biology Developmental Biology Entomology Environmental Health Epidemiology Genetics Hematology Immunology Marine Biology Medicine Molecular Biology Molecular Medicine Mycology Neurology Oncology Ophthalmology Physiology Population Biology Radiology Toxicology Microbiology Virology Zoology Chemical Sciences and Engineering Analytical & Surface Chemistry Biochemistry Catalysis Chemical Engineering Ecological Chemistry Inorganic Chemistry Organic Chemistry Physical Chemistry: General Physical Chemistry: Kinetics Physical Chemistry: Physical Organic Physical Chemistry: Reactions/Mechanisms Physical Chemistry: Theory & Dynamics Polymer Chemistry Electrical, Materials, and Manufacturing Sciences and Engineering Aero/Astro Engineering Ceramics Composite Materials Electrical Engineering Electronic Materials Instrumentation Lasers Magnetic Materials Manufacturing Materials Science Mechanical Engineering Metallurgy Nuclear Engineering Optical Material Polymers Power Engineering Superconducting Materials</p>	<p>Mathematical Sciences Abstract Algebra Applied Mathematics (non-physics) Complex Systems & Chaos Computer Science Geometry & Topology Mathematical Logic & Number Theory Mathematical Physics Mathematical Statistics and Probability Modern Analysis Numerical Methods Physical Sciences Acoustics Astronomy/Astrophysics Atomic and Molecular Physics Beams Condensed Matter: General Properties Condensed Matter: Magnetic Properties Condensed Matter: Structure Condensed Matter: Superconductivity Condensed Matter: Theory and Transport Electronics Fluids Holography Hydrodynamics Lasers Mechanics Medical Physics Nonlinear Optics Nuclear Physics Optics and Spectroscopy Particles and Fields Plasma Physics Space Theoretical Physics Quantum Computing and Cryptography Quantum Statistic Geological Sciences and Engineering Atmospheric Science Civil and Mechanical Engineering Environmental Science Geochemistry Geological Engineering Geology Geophysics Hydrology Meteorology Mineralogy Oceanography Paleoclimate Petroleum Geology Radioactivity Remote Sensing Seismology Soil Science Volcanology Other</p>	<p>Biological & Biomedical Sciences & Engineering Agriculture & Agronomy Bacteriology Behavioral Biology Biochemistry Biophysics Biotechnology Botany (Plant Biology) Cardiology Cell Biology Conservation Biology Developmental Biology Entomology Environmental Health Epidemiology Genetics Hematology Immunology Marine Biology Medicine Molecular Biology Molecular Medicine Mycology Neurology Oncology Ophthalmology Physiology Population Biology Radiology Toxicology Microbiology Virology Zoology Chemical Sciences and Engineering Analytical & Surface Chemistry Biochemistry Catalysis Chemical Engineering Ecological Chemistry Inorganic Chemistry Organic Chemistry Physical Chemistry: General Physical Chemistry: Kinetics Physical Chemistry: Physical Organic Physical Chemistry: Reactions/Mechanisms Physical Chemistry: Theory & Dynamics Polymer Chemistry Electrical, Materials, and Manufacturing Sciences and Engineering Aero/Astro Engineering Ceramics Composite Materials Electrical Engineering Electronic Materials Instrumentation Lasers Magnetic Materials Manufacturing Materials Science Mechanical Engineering Metallurgy Nuclear Engineering Optical Material Polymers Power Engineering Superconducting Materials</p>	<p>Mathematical Sciences Abstract Algebra Applied Mathematics (non-physics) Complex Systems & Chaos Computer Science Geometry & Topology Mathematical Logic & Number Theory Mathematical Physics Mathematical Statistics and Probability Modern Analysis Numerical Methods Physical Sciences Acoustics Astronomy/Astrophysics Atomic and Molecular Physics Beams Condensed Matter: General Properties Condensed Matter: Magnetic Properties Condensed Matter: Structure Condensed Matter: Superconductivity Condensed Matter: Theory and Transport Electronics Fluids Holography Hydrodynamics Lasers Mechanics Medical Physics Nonlinear Optics Nuclear Physics Optics and Spectroscopy Particles and Fields Plasma Physics Space Theoretical Physics Quantum Computing and Cryptography Quantum Statistic Geological Sciences and Engineering Atmospheric Science Civil and Mechanical Engineering Environmental Science Geochemistry Geological Engineering Geology Geophysics Hydrology Meteorology Mineralogy Oceanography Paleoclimate Petroleum Geology Radioactivity Remote Sensing Seismology Soil Science Volcanology Other</p>
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Appendix 2
FORMER FSU WEAPONS RESEARCHER CODE LIST

Former Weapons Researcher – defined as project participants that were engaged in research at a current or former weapons laboratory or institution. Five categories of former defense researchers are provided below (Categories B, C, and D are classified as Weapons of Mass Destruction researchers):

CATEGORY A: MISSILE TECHNOLOGY EXPERTS	
CODE	DESCRIPTION
A1	Design, construction and performance of air, space, surface and underwater - launched missiles. Materials and technologies for these missiles. Production of engines, fuels, composites, integrated elements, radio-electronic equipment, different testing devices for missiles.
A2	Techniques for guidance and control of missiles from launching to impact. Includes optical guidance, television guidance, wire guidance, present and terminal guidance, internal guidance, command guidance, and homing guidance.
A3	Missile handling and launching, including transportation, storage, and preparation for launching. Air, space, surface and underwater launching and support equipment and technologies; Checkout equipment and procedures. Guided missile ranges.
A4	Techniques and systems for tracking missiles as defensive measures. Can be from surface installations or air and space-borne platforms.
CATEGORY B: CHEMICAL WEAPONS EXPERTS	
B1	Design and performance of missile warheads and rockets for delivery of chemical weapons.
B2	Materials, facilities and performance processes needed for the production of chemical weapon agents and their key precursors.
B3	Dissemination of chemical weapon agents.
B4	Basic knowledge on CW design and their effect on human system.
CATEGORY C: BIOLOGICAL WEAPONS EXPERTS	
C1	Design and performance of missile warheads and rockets for delivery of biological weapons.
C2	Biopolymer production related to biological warhead capabilities.
C3	Dissemination of biological weapon agents.
C4	Basic knowledge on BW design and their effect on human system.
CATEGORY D: NUCLEAR WEAPONS EXPERTS	
D1	Basic knowledge of Nuclear Weapons design, construction, characteristics and the effect on human system,
D2	Design, construction and performance of missile warheads for delivery of nuclear weapons.
D3	Design, construction and performance of the equipment and Components for Uranium and Plutonium separation.
D4	Design, construction and performance of the equipment connected with Heavy Water Production.
D5	Design, construction and performance of the equipment for Development of Detonators.
D6	Design, construction and performance of Explosive Substances and Related Equipment.
D7	Design, construction and performance of the equipment and Components for Nuclear Testing.
D8	Design, construction, performance and operation of production-type nuclear reactors for fissile and tritium-content materials production (breeding).
D9	Design, construction, performance of nuclear reactors and units for submarine and for military space program.
CATEGORY E: OTHER	
E1	Design, construction, and performance of powerful laser facilities for military applications.
E2	Design, construction and performance of accelerator facilities for military applications in space programs
E3	Others