

# University Cancer Research Fund AUGUST 2011 INNOVATION AWARDS GUIDELINES

## *Team Science Award Continues*

The Innovation Awards program recently changed Guidelines and added a Team Science submission category. Other changes included increased emphasis on cancer relevance across all submission categories.

Team Science awards support multidisciplinary teams of researchers collaborating on three or more thematically- related research projects aimed towards generating a multi-PI R01, program project, SPORE, or another major team science external funding. Team Science awards can be up to \$200,000 per year for up to two years. Team Science submissions can be focused within the basic clinical / translational, or population sciences, but the best submissions will include projects that span two or more categories (Basic plus Clinical/Translational, Basic plus Population, Clinical/Translational plus Population, etc.).

## I. Purpose

The primary purpose of the University Cancer Research Fund (UCRF) Innovation Awards is to support innovative, collaborative, cancer-focused science across the broad continua of cancer – from fundamental laboratory science to community intervention, from disease prevention to palliative care, and from childhood to adult.

The Innovation Awards program emphasizes:

- ***Top-notch, new cancer-focused science.*** Innovation Awards primarily support new initiatives in cancer or cancer-related research. Awards may also be used for significant and novel enhancements of existing funded efforts but **not** for marginal extensions of existing hypotheses and methods. Awards may not be used to replace existing funding.
- ***Significant novelty in concepts, methods, and/or collaborations.*** Innovation Awards should help break new scientific ground in cancer research, both nationally and at UNC Chapel Hill. They should feature interdisciplinary and transdisciplinary collaboration.
- ***“High-reward” along with “High-risk.”*** When successful, Innovation Award projects should have excellent potential for follow up extramural sponsored funding at the P01 or R01 level (or their equivalent). Findings from Innovation Awards should also – over the long term -- have excellent potential for advances that can enhance our scientific understanding of cancer and/or clinical and public health practice.

## II. Funding

Awards in the Basic, Clinical/Translational, and Population Sciences categories will range upwards to \$100,000 per year and up to two years of funding. Awards in the Team Science category will range upwards to \$200,000 per year and up to two years of funding.

During each round, the UCRF expects to commit at least \$1,000,000 per funding round. The final number and amount of awards will depend upon the quality of the proposals received, the type of proposals selected, and the available funding. Some applications may be considered for co-funding by other developmental programs. The overall level of funding for Innovation Awards depends upon the overall level of funding for UCRF, which is subject to change from year to year.

A budget appropriate for the ideas and work proposed is a review criterion. Proposed budgets may be funded at levels lower than those requested. Expenditures will begin at specified start times but all appropriate animal and human subject approvals must be in place before spending can begin. Funds must be expended within the time limits set by the award notice. Carryover across fiscal years (7/1 – 6/30) is not allowed. Final and interim reporting on progress, significance, and impact are required.

## III. Eligibility

UNC Chapel Hill faculty and all UNC Lineberger Comprehensive Cancer Center members are eligible to apply. UNC Chapel Hill faculty includes tenure-track and fixed term faculty whose primary appointment is at UNC Chapel Hill.

An investigator (acting as principal investigator) may submit only one proposal per round to the Innovation Awards. Investigators can be co-investigators on multiple projects and principal investigator on one project and co-investigator on one or more other projects. Leaders of Team Science sub projects are considered to be co-investigators for the overall project. Principal Investigators may concurrently apply as PI for the UNC Lineberger Developmental Awards and any other UCRF developmental research program.

For review and reporting purposes, each award will have only one PI of record. Functionally, projects may have co-PIs.

Innovation Awardees will be ineligible to submit proposals (as PI) for two years (or four submission rounds, whichever comes first) following their award. Awardees are required to participate in the review process for three future rounds.

## IV. Application

***Note: The application guidelines generally apply to all four submission categories – Basic, Clinical/Translational, Population, and Team Science. The guidelines indicate where requirements for Team Science awards differ.***

**a. Submission**

Applications for the August 2011 round are due at 5 pm EDT on August 26, 2011. To be eligible for review, each application must complete three steps:

1. **Register On-line.** All applicants must register and then submit their proposals at the UCRF Innovation Awards website. The site will be announced and opened in mid-July, 2011. Both registration and submission must be completed by 5:00 pm on the deadline date.
2. **Submit On-line.** At the end of the on-line registration, investigators must submit (upload) their entire application as a **single PDF: the file name should include the PI's name**. The file size of the single PDF **must not exceed 2MB**.
3. **Submit Hard Copy.** In addition, a hardcopy original application must be received by 5:00 PM on the deadline date. Submit the complete hardcopy original application to: Dr. Michael S. O'Malley, Associate Director, UNC Lineberger Comprehensive Cancer Center, CB# 7295, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, 27599-7295. A complete original includes a cover sheet, an Innovation and Impact Abstract, text, budget, budget justification, letters of support, appendices, etc.

Applications missing one or more of the required components (registration, uploaded single PDF electronic copy with the PI's name in the file name, hardcopy) will be considered incomplete and will not be reviewed.

Extensions of the deadline will not be granted.

Supplementary or additional materials will not be accepted after the submission deadline.

**b. Organization and Format**

The proposal text should follow the general PHS 398 research plan outline: specific aims followed by research strategy. Research strategy must include significance, innovation, previous studies, and approach. Be sure to provide a sufficient description of your approach / research plan. "Previous studies" refers to the standard NIH preliminary studies for new applications section and does not include the Progress Report from applicants who have had a prior Innovation Award (see below, subsection c).

Each proposal should include an abstract ***and*** a Cancer, Innovation and Impact statement in both the on-line pdf and the hardcopy.

***Abstract.*** In 250 words or less, the abstract should succinctly summarize the research project.

***Cancer, Innovation, and Impact Statement.*** In a separate section also limited to 250 words or less, the applicant should highlight the cancer relevance of the proposed research, what is novel and innovative about the proposed research, and the potential impact of that research. ***The Cancer, Innovation, and Impact Statement is a key document.*** Make sure you clearly outline why your proposed research is cancer relevant, innovative, and has potential impact. The same or similar information can be included in the significance and innovation sections of your research strategy text.

For Basic, Clinical / Translational, Population Sciences submissions, the text of the application (specific aims – research strategy) is limited to ***four pages***.

The abstract, Cancer, Innovation and Impact statement, budget, budget justification, references, human subjects, etc are ***not*** included in the page limits. Appendices and other supporting materials (such as letters of support) are allowed and are also ***not*** included in the page limit. Please note, reviewers are ***not*** compelled to read appendices. Please make sure that your application is interpretable without appendices and that it meets file size specifications.

Use at least 0.5 inch margins, single or exactly 12 pt line spacing; and no smaller than 11 pt Times Roman font or its equivalent. Use of NIH forms is not required (except for the budget). For example, you don't need to submit an NIH face page.

Use the cover sheet posted on the UCRF Innovation Awards website.

Applications must include biosketches for the principal investigator and all key investigators and collaborators. Use the standard NIH biosketches (limit four pages). Your personal statements can be brief and you may include more than 15 references. However, do not curtail reporting of your other support to create additional room for references.

If the principal investigator or other key investigators have or have received other grant support for the proposed research or similar research in the past, they should include that relevant funding information.

#### ***Additional Requirements for Team Science Applications***

The significance subsection of Team Science award submissions should include an explanation and rationale for the research theme uniting the three or more projects, the overall approach, and the multidisciplinary team. Please also make clear the cancer relevance of the proposed research.

The text of the Team Science application (specific aims – research strategy) is limited to eight pages instead of four.

#### **c. Budget**

Use the NIH budget forms to present one-year and (as appropriate) multi-year budgets. The accompanying budget justification should be sufficiently detailed so reviewers can assess whether appropriate resources have been requested. Inadequate justification may result in a less favorable score and/or lower funding.

#### **d. Progress Reports (Prior Awardees Only)**

Applicants who are past Innovation Award recipients must submit a brief progress report as part of their application. The progress report's findings and research productivity will be considered in the review of the new proposal. This requirement applies to Principal Investigators of Team Science sub projects.

The progress report should include two parts: 1) a brief ( $\leq 1$  page) summary of findings; and 2) a summary of research productivity (grants obtained, grant applications in review, grant applications submitted but not funded; publications and manuscripts in press, manuscripts submitted and in review, patents submitted, etc.) Please use standard reporting formats for grant awards

(agency #, title, award period, annual direct dollars, and annual total dollars) and publications (standard PubMed format including PMID #).

This progress report does ***not*** count against the text page limits.

**e. Other Issues**

Within 72 hours of the deadline, you should receive a notice of receipt of your application. If you submit an application and do not receive notice within 72 hours, please contact Michael O'Malley ( [clover@med.unc.edu](mailto:clover@med.unc.edu) ).

Those receiving an award will submit a ***lay abstract*** (250 words or less). The lay abstract should describe the project or program in terms understandable to the non-scientific community. Either the scientific or lay abstract or both will be published on the UCRF website and may be used in part or in full in reports to the University, the NC General Assembly and the public.

**V. Review**

***Note: The review guidelines generally apply to all four submission categories – Basic, Clinical/Translational, Population, and Team Science. The guidelines indicate where review for Team Science awards differs.***

**a. Study Section and Process**

A study section/committee of peer reviewers (with representation from the basic, clinical/translational, and population sciences) will evaluate and rank proposals. There will ***not*** be a separate study section for Team Science applications.

Depending on the number of applications received, the committee may triage applications to allow a thorough review of the most competitive proposals. This first-stage triage review will use the Abstract and the Cancer, Innovation, and Impact Statement. Following peer review, the UCRF Oversight Committee will consider peer review rankings / recommendations and determine awards. We expect final decisions to be announced within three months of submission.

**b. Evaluation of Basic, Clinical / Translational, and Population Sciences Applications**

Evaluation criteria are weighted to reward innovative, top-notch, cancer-focused science that has potential for impact and that can be accomplished in the time proposed. Reviewers judge the cancer relevance of each proposal (high, medium, low) and use four primary criteria to score each project. The criteria include:

1. **Innovation (35%).** We rely primarily upon the NIH's definition of innovation: "Does the project challenge existing paradigms or clinical practice; address an innovative hypothesis or critical barrier to progress in the field? Does the project develop or employ novel concepts, approaches, methodologies, tools, or technologies for this area?" Innovation can also mean the novel collaborations that enhance and not just extend current approaches. Finally, innovation can mean breaking new ground at UNC Chapel Hill, as well as nationally.

Based on this enhanced definition, proposed projects that are marginal extensions of currently supported work, especially without new collaborators taking the project in new directions, will likely score lower in innovation.

2. **Scientific Merit (25%).** All Innovation Awards are intended to fund high-quality science. Poorly-conceived specific aims and/or inadequate or inappropriate methods should not be funded even if they are innovative. Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed?
3. **Impact (20%).** Impact includes potential for future grants, particularly at the P01 and R01 levels, as well as potential impact of the project on cancer research, the University, and/or the state. The Innovation Awards and the review looks to favor applications that bring diverse disciplines together in novel ways and presage P01 and/or other major grant applications. Other research products, such as patents, publications, etc, also contribute to impact.
4. **Feasibility (20%).** Given facilities, budget (and budget appropriateness), time, investigative team expertise, and other resources, can the project's aims be accomplished in the time allotted?

***To reiterate, to assure that these Awards support innovative cancer-focused science, the reviewer's scores for innovation counts for ~ one-third of the overall score.***

***As noted above, in addition to scoring each proposal on the four primary criteria, each reviewer will assess the cancer relevance of each submission – high, medium, low.*** While assessment of cancer relevance will not directly factor into the scoring, it will be used in making final decisions about which proposals are recommended for funding. For example, if two proposals have equal scores, the one with a “high” cancer relevance rating will have precedence over the one with a “medium” or “low” assessment. In some cases, a proposal with a slightly worse score may be favored over proposals with better scores if the proposal has a higher assessment of cancer relevance.

For applicants who are past Innovation Awards recipients (Innovation Awards only), reviewers will factor in the progress report (findings and productivity) in assigning scores for both innovation (criterion 1) and feasibility (criterion 4).

### c. **Evaluation of Team Science Applications**

Evaluation criteria are weighted to reward innovative, top-notch, high cancer-relevant, multidisciplinary team science that has potential for impact and that can be accomplished in the time proposed. Reviewers will judge the cancer relevance of each proposal (high, medium, low). ***Only proposals with high cancer relevance will be considered for award.*** For those proposals with high cancer relevance, reviewers will use five primary criteria to score each project. The criteria include:

1. **Innovation (30%).** We rely primarily upon the NIH's definition of innovation: “Does the project challenge existing paradigms or clinical

practice; address an innovative hypothesis or critical barrier to progress in the field? Does the project develop or employ novel concepts, approaches, methodologies, tools, or technologies for this area?" Innovation can also mean the novel collaborations that enhance and not just extend current approaches. Finally, innovation can mean breaking new ground at UNC Chapel Hill, as well as nationally.

Based on this enhanced definition, proposed projects that are marginal extensions of currently supported work, especially without new collaborators taking the project in new directions, will likely score lower on innovation.

2. **Scientific Merit (20%).** All Innovation Awards are intended to fund high-quality science. Poorly-conceived specific aims and/or inadequate or inappropriate methods should not be funded even if they are innovative. Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed?
3. **Multidisciplinary Integration (20%).** Do the proposed team and projects integrate expertise, methods, and knowledge from multiple disciplines across the basic, clinical /translational, and population sciences? Is there strong a strong theme connecting the projects and evidence of coordination, interrelationships, and synergy among the individual research projects? Is there a clear advantage or value added by conducting the proposed research as a Team Science Award rather than through separate Innovation Awards?
4. **Impact (15%).** Impact includes potential for future grants, particularly at the P01, SPORE, or other major grant levels, as well as potential impact of the project on cancer research, the University, and/or the state. Other research products, such as patents, publications, etc., also contribute to impact.
5. **Feasibility (15%).** Given facilities, budget (and budget appropriateness), time, investigative team expertise, and other resources, can the project's aims be accomplished in the time allotted?

***To reiterate, to assure that these Awards support innovative cancer-focused science, the reviewer's scores for innovation counts for ~ one-third of the overall score.***

***Also, as noted above, only proposals rated as having high cancer relevance will be reviewed.***

#### **d. Other Aspects of Review**

The intent of the review process is to fund the best applications as identified by the above criteria, but other factors may also affect final award decisions. Other review factors may include but are not limited to: the interdisciplinary / transdisciplinary nature of the research project; the applicant PI's overall past productivity; and potential balance across major cancer research areas (e.g., basic, translational, clinical, and population sciences).

Awardees and other applicants will **not** receive a final score/ranking or a complete critique. The review process **will** provide brief feedback to those not selected for funding.

***The purpose of reviewer feedback is to alert applicants to the major reasons why the reviewers preferred other proposals.*** This feedback is **not** intended to help applicants in improving their proposals and their chances for funding upon re-submission. The UCRF Innovation Award review committee is not a standing study section where over time applications may be reviewed by the same or similar persons and applicants can expect to see scores improve if they address identified shortcomings.

## VI. Requirements

- a. Funding must be used for a project that can be completed in the designated period of the grant proposal. For this round, we anticipate the earliest start date to be January 1, 2012 with 12 to 24 months (depending upon the proposal) to expend awarded dollars. No-cost extensions across fiscal years, particularly those in the second year of funding, will be rare exceptions.
- b. Funds may be budgeted for any of the standard categories and for purposes deemed necessary for the successful execution of the proposed project. However, there are several cases where restrictions and additional scrutiny apply.
  1. **Faculty salary.** Requests for tenure-track or fixed-term faculty investigator salary support must be rigorously justified. The budget should not include more than 0.20 FTE in faculty salary (for PI, co-PI, other faculty investigators combined). Requests for non-tenure track faculty who direct labs or projects and requests for consulting biostatistics faculty support (for data analysis) will not count against the 0.20 faculty salary limit; however, requests for this kind of support should be appropriate for the level of effort required.
  2. **Travel.** Requests for travel support should be limited to funds directly related to project performance. Travel to conferences and meetings will **not** be supported. International travel is **not** allowed.
  3. **Equipment.** Requests for equipment should also be limited to funds directly related to project performance. For example, a laptop for a research assistant to use in clinic to collect data would be appropriate.

Unused funds will revert to the supporting funding source. All proposed expenses must conform to the general policies of the University.

- c. Prior to actual funding, all awarded projects that involve animals or human subjects must be reviewed and approved in accordance with the University's general assurances and HIPAA. Reviews and approvals may be "Just in Time" and are not required for registration/application. Projects involving human subjects must be submitted to an Institutional Review Board (IRB). Intervention studies and clinical protocols must be reviewed and approved by the UNC Lineberger Protocol Review Committee. Appropriate animal forms must also be filed and approved. All investigators and all persons named on the budget page must have certification of training in the protection of human subjects.

Projects that use the UNC Lineberger Biostatistics Core, the Tissue Procurement Core, and/or other core resources (including ICISS) are encouraged to consult with those cores prior to submission.

- d. Prior to actual funding, all award research projects and programs must submit a lay abstract (250 words or less, each).
- e. Interim progress reports are due upon request, generally annually on the anniversary of funding. Failure to submit an adequate progress report may result in suspension of funding.

A summary progress report shall be submitted three months after the end date of support. This report must be submitted earlier, if the recipient of the grant is leaving the University. The summary progress report should assess the project's/program's innovation and impact vis a vis the initial statement of innovation and impact.

To assess the longer term dividends from Innovation Award investments, principal investigators will provide – upon request -- summary progress report updates for at least three years after the end of the funding. The third updated summary progress report will be the final report.

Interim, summary, and final progress reports should reference all research products generated, including abstracts submitted/published, peer-reviewed articles submitted/published, grant applications submitted/funded, and potential/actual intellectual property (reports of invention, etc).

Where appropriate, all progress reports should identify the counties and populations involved or affected. For example, for a project supporting a dietary intervention for adults that works through African-American churches in six rural eastern NC counties, the principal investigator's report should acknowledge the population – African Americans – and name the six counties included in the study.

- f. All manuscripts, abstracts, posters, and presentations should acknowledge support from the University Cancer Research Fund.
- g. Awards co-funded by other sources (such as the Breast Cancer SPORE) will also adhere to reporting and other requirements established by those programs.
- h. Awardees will serve on three UCRF Innovation Award review committees.

## **VII. Note on Awards**

Actual award depends upon funds availability. The earliest start date for Innovation Awards in this round is January 1, 2012. Funds to support these two-year awards will come from the UCRF's FY 2011-2012 and FY 2012-2013 budgets.

## **VIII. Future Rounds**

The next round of UCRF Innovation Awards will likely be due in January or February, 2012.