

Workshop 6: Navigating the CBCRP Application Process

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"This workshop session will teach participants how to improve grant application strategies and address the requirements of the CBCRP. It will include an overview of the mission of the grants offered by the CBCRP, how applications are reviewed, and how funding decisions are made by our advisory Council."

- ❖ CBCRP's funding interests
- ❖ Recent funding history
- ❖ CBCRP's evaluation/funding process
- ❖ Point out common mistakes and pitfalls
- ❖ Peer review vs. "programmatic review"
- ❖ Goal: Provide insights to help you use your skills to maximize the chances of success



Key points about the CBCRP

Our "philosophy" and approach include a desire to:

- ❖ Encourage more rapid progress and innovation
- ❖ Support underfunded research topics
- ❖ Emphasize translation & dissemination
- ❖ Permit new & established scientists to enter breast cancer research
- ❖ Allow "advocate" input into priority setting & funding
- ❖ Incorporate "community" interests in research



2008 (Cycle 14) application/grant timeline

- ❖ July—"Call for Applications" released
- ❖ Late August—Application materials and instructions posted on proposalCENTRAL
- ❖ October 15— Translational Research Award LOIs due
- ❖ October 25— CRC "concept paper" submission due
- ❖ 2007
- ❖ January 9— IDEA, dissertation, postdoc, translational research award applications due. LOIs for IDEA competitive renewals due
- ❖ February 28— CRC and IDEA, competitive renewals full applications due
- ❖ March/April— peer review committees meet and assign scientific merit scores
- ❖ Early May— CBCRP's advisory Council meets, conducts programmatic review, and makes funding decisions
- ❖ Late May— notification letters mailed
- ❖ July 1— grant start date
- ❖ June-August— resolve pre-funding issues, award notices made official, funding disbursement, peer review evaluation summaries provided



CBCRP award types

► Innovative research, career development, and translational programs

Award Type	IDEA	IDEA-competitive renewal	Postdoctoral Fellowship	Dissertation	Translational Research
Purpose	Innovative, exploratory research	Developmental, high-reward research	Training, career development	Training, career development	Practical applications
Maximum duration	1.5 yrs	2 yrs	3 yrs	1 or 2 yrs	3 yrs
Maximum direct costs	\$100-150K	\$200-250K	\$125K	\$75K	\$750K
Minimum PI effort on project	5%	5%	80%	80%	10%
Indirect (F&A) costs for non-UC only	Full	Full	None	None	Full



Where to get detailed information: CBCRP's Web site



How to apply: proposalCENTRAL



Overall results from the 2004-2007 CBCRP funding cycles

	2004	2005	2006	2007
Number Applications	223	201	202	220
Number Grants	42	53	53	35
Success Rate	19%	26%	26%	17%
\$ Awarded	\$14.7M	\$7.7M	\$9.8M	\$7.1M



2006 & 2007 funding by award type

Table 2. 2007 portfolio distribution by CB

Award Type	Number of Applications	Grants Funded (success rate)
Dissertation	22	8 (36%)
Postdoctoral Fellowship	48	6* (12.5%)
IDEA	103	9* (9%)
IDEA-Competitive Renewal	8	3 (37.5%)
Translational	10	1 (10%)
CRC Pilot Award	21	3 (14%)
CRC Full Award	6	3 (50%)
Joining Forces Conference	2	2 (100%)

35 grants = \$7.1M

Table 2. 2006 portfolio analyzed by CB

Award Type	Number of Applications	Grants Funded (success rate)
Dissertation	19	7 (37%)
Postdoctoral Fellowship	37	8 (22%)
IDEA*	113	22* (19%)
IDEA-Competitive Renewal	9	1 (11%)
CRC Pilot Award	18	8 ^A (44%)
CRC Full Award	5	2 (40%)
Joining Forces Conference	1	1 (100%)

53 grants = \$9.8M



Increasing your chances for success: think ahead and solve critical review issues before preparing the application

Points to be covered:

- ❖ Critical questions to ask yourself
- ❖ Try to avoid common problems with grant applications in the peer review
- ❖ Scientific merit scoring and how CBCRP uses the various components
- ❖ Differences between the peer and programmatic reviews



Questions to consider when developing a strategy for preparing your application (the big picture)

- ❖ Are you a breast cancer researcher?
- ❖ Have you worked in the topic/techniques previously?
- ❖ What is your overall and recent publication record?
- ❖ Do you have preliminary data?
- ❖ Is the project appropriate for career development?
- ❖ Is this a new project area for you (innovation)?
- ❖ Is your research focused on "mechanism"?
- ❖ What do you expect to achieve, and how are results to be analyzed and prioritized for future work?



Looking ahead: general application problems to avoid in the peer review

- ❖ Problem not important enough. Studies based on a shaky hypothesis or data. Projects lacks a rationale.
- ❖ Lack of original or new ideas. Study not likely to produce useful information.
- ❖ Alternative hypotheses, controls, and pitfalls not considered. Too little detail in the research plan
- ❖ Over-ambitious research plan with an unrealistically large amount of work.
- ❖ Lack of focus in hypotheses, aims, and or research plan. Too many aims.
- ❖ No collaborators. Investigator too inexperienced with the proposed techniques.
- ❖ Proposed project correlative or a fishing expedition, i.e., no hypothesis/question being addressed.
- ❖ Proposal driven by technology, i.e., a method in search of a problem.
- ❖ Experiments too dependent on success of an initial proposed experiment.

Adapted from: http://www.niaid.nih.gov/ncr/grants/write/write_d6.htm



Reviewers are just human too!

Reviewers are knowledgeable, experienced scientists, but they can't know everything!

- ❖ **Problem:** They may not get the significance of your proposed research.
Solution: Make a compelling argument for the project.
- ❖ **Problem:** They may not be familiar with all your methods.
Solution: Write much of the application to the non-expert in the field.
- ❖ **Problem:** They may not be familiar with your background.
Solution: With your biosketch, collaborations, and expertise show them you can do the job.
- ❖ **Problem:** They may get worn out by having to review 8-10 applications.
Solution: Write clearly and concisely, and make sure your application is neat, well organized, and visually appealing. Proofread, avoid typos, and do not "cut-and-paste" from other grant applications.

Adapted from: http://www.niaid.nih.gov/ncr/grants/write/write_d5.htm



Key problems that impact scoring: dissertation & postdoc applications

- ❖ Mentor is not well connected to breast cancer research and no collaborations are planned to address this issue
- ❖ Application was not written by the PI
- ❖ Mentor did not assist the PI in limiting scope of work (overambitious), prioritizing aims, proofreading, and helping in “grantsmanship”
- ❖ Does the project provide the applicant new training opportunities and is it multi-disciplinary?
- ❖ Project is not hypothesis-driven
- ❖ Project is too risky
- ❖ PI has been in the mentor’s lab too long or is not productive.



Dissertation/Postdoc applications: career issues

- ❖ The **applicant (PI)** should prepare an interesting career plan that focuses on breast cancer. Place the project as the key element that links the PI’s background and future career plans.
- ❖ The **mentor** needs to prepare a solid training plan that includes:
 - ❖ The mentor’s background, funding, and publications in breast cancer or the key topic of the research
 - ❖ The mentor’s history of training grad. students and postdocs
 - ❖ The amount of time spent on direct contact between the PI and mentor
 - ❖ Collaborations and interactions to increase the scope of the training experience (time spent in other labs or research settings)
 - ❖ Travel to meetings



Key problems that lower scoring: IDEAs

- ❖ PI is not a breast cancer researcher.
- ❖ Too much previous work by the PI on the project (lacks innovation). Aims are incremental.
- ❖ Topic has little potential or translational opportunities (weak “critical path”). Project is not “high reward.”
- ❖ Parallel work has been completed and/or funded in another cancer type.
- ❖ Project is in a well published topic.
- ❖ PI is not productive.
- ❖ Project is not breast cancer-specific.



Why the “critical path” for IDEAs?

- ❖ The CBCRP does not want to fund “dead end” projects that never have the potential for breast cancer impact (research that only leads to more research)
- ❖ Place the project on a “critical path” that leads from basic discovery, to “proof of principle”, through developmental stages, validation in animal models or human intervention studies, testing in clinical or population settings, and practical applications (translation)
- ❖ We expect researchers to understand the path from basic discovery to practical application for the general topic/discipline being investigated
- ❖ Thus, the PI should explain how their successful project would lead to the next phase of the translational continuum

Read our instructions when preparing the “critical path” portion of the application!



Scientific merit scoring

CBCRP does not use the NIH 1-5 scoring scheme, and we do not ask reviewers to assign a single overall score.

The CBCRP uses “component scoring” 1 (= lowest) to 10 (= highest) scale. There are 4-5 components of scientific merit for each CBCRP award type:

❖ **IDEA application scientific merit components include:**
*Innovativeness *Impact *Approach *Feasibility

❖ **IDEA, competitive renewal application components include:**
*Progress *Impact *Approach *Feasibility

❖ **Postdoc and Dissertation application components include:**
*Innovativeness *Impact *Approach *Feasibility *Career Development

❖ **Translational Research Award application components include:**
*Translational Potential *Critical Path & Research Barriers *Approach *Feasibility



The “other” review process: the programmatic review is conducted CBCRP’s advisory council

Council Membership:

- ❖ 5 Advocate Members
- ❖ 4 Scientist/Clinicians
- ❖ 2 Non-profit health organizations
- ❖ 2 Private Industry
- ❖ 1 Breast Cancer Oncologist
- ❖ 1 Breast Cancer Early Detection Program (“Every Woman Counts”)



Key points for the programmatic review

- ❖ Does not consider the Research Plan or re-visit the scientific details
- ❖ Is performed independently of the peer review
- ❖ Enables issues of Program-wide interest to be evaluated, e.g., portfolio balance, focus on underserved populations, advocate involvement
- ❖ Requires evaluation of applications in a consistent manner
- ❖ Enables the CBCRP to communicate the entire basis for each funding decision



Programmatic review criteria

- ❖ **Response to priorities.** How responsive is the proposed research to CBCRP priority issues?
- ❖ **Response to award type.** How responsive is the project and PI to the selected award type?
- ❖ **Career plan/mentoring** (dissertation/postdoc only). The degree to which the applicant's career plans have developed an interest in and knowledge about breast cancer research reflecting a long-term career commitment to study the disease.
- ❖ **Critical Path/translation** (IDEA only). The degree to which the applicant's statements provide a convincing argument that the proposed research fits into and advances a critical path for translation and impact on breast cancer.
- ❖ **Dissemination and translation potential** (CRC only). The degree to which the research and community collaboration, if successful, have the potential to be more broadly distributed and applicable to other communities and the general California population.
- ❖ **CBCRP "balance" or underfunded.** The degree to which the PI has highlighted the unique aspects of the proposed research from their own projects (past and present) and the research by others. Is the research relatively underfunded by other agencies, or not funded? Is it especially important to fund this application in order to balance the CBCRP's portfolio.
- ❖ **Quality of the lay abstract.** Does the lay abstract clearly explain in non-technical terms the research background, questions, hypotheses, and goals of the project?
- ❖ **Addressing the needs of the underserved.** Do the project and the PI's statements demonstrate how this research will address the needs of the underserved (including those that are underserved due to factors related to race, ethnicity, socioeconomic status, geographic location, sexual orientation, physical or cognitive limitations, age, occupation and/or other factors)?
- ❖ **Advocacy- sensitivity and inclusion.** Does the PI express sensitivity to and awareness of the human issues involved in the research and the concerns of breast cancer advocates? Has the PI committed him/herself to be proactive in disseminating the research to the lay audience? Does the research include advocates?



How to address advocacy involvement

- ❖ Visit breast cancer advocacy Web sites, displays at meetings, and talk to patient survivors "in person"
- ❖ Determine the link to advocacy interests for your type of research (e.g., individualized treatments, better predictive biomarkers, prevention strategies, reducing chemotherapy, earlier detection, etc.)
- ❖ Discuss your project with advocates, gain their input, present your work at their meetings, see whether they might meet with you during the proposed project, and obtain a letter from them to validate a mutually beneficial interaction.

Never address this criteria by "n/a"



To revise...or not to revise?

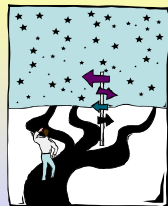
- ❖ Are the shortcomings "fatal"? Certain key evaluative criteria hard to fix:
 - Low innovation score for an IDEA
 - Low career development score
- ❖ Some revisions do worse (same committee)
 - Need to continue the project and publish between applications.
 - IDEAs should have new data and revised aims.



What can you expect?

Keep in mind.....

- ❖ The application evaluation process is not perfect
- ❖ Unfavorable reviews happen to good projects and PIs
- ❖ Apply to other agencies
- ❖ The CBCRP strives to offer an open, fair, and competitive process to our applicants



Don't be afraid to call/e-mail us and ask questions

