



AAAS Reviewer Guidelines

Proposals for 2009 Summer Commercialization Grants Competition

A. Introduction and Background

Introduction. The following guidelines apply to the Life Sciences Discovery Fund (LSDF) 2009 Summer Commercialization Grants Competition and are for AAAS expert reviewers to follow in reviewing full proposals. Before starting your reviews, read the request for proposals (RFP) for this grant competition at:

http://www.lsdfa.org/grants/current/2009/Commercialization_Grants/RFP.pdf.

These Reviewer Guidelines will also be posted there.

Contact Information. If you have questions at any point during the review, contact:

Ed Derrick

AAAS Research Competitiveness Program

202-326-6788

ederrick@aaas.org

Background of the Life Sciences Discovery Fund. LSDF was created by the Washington State Legislature to receive approximately \$33 million per year (\$19.5 million per year in 2010 and 2011) in tobacco settlement bonus payments over a period of 10 years to invest in life sciences research. The mission of LSDF is to support innovative research in Washington State to promote life sciences competitiveness, enhance economic vitality, and improve health and health care.

Board of Trustees. LSDF is governed by a board of trustees, which has final award-making authority. The board is considerably informed by the expert review process, but uses additional criteria in making award decisions.

Commercialization Grants. Advancing the commercialization of ideas and research discoveries is a key component of LSDF's mission. LSDF commercialization grants will support research and development to enhance the flow of technologies from the research lab to the marketplace. These grants support highly targeted research and development activities in a segment of the commercialization pathway—the so-called “valley of death”—which is considered to be too applied for federal grant support and yet too risky for private investment. Work within this segment centers on validating the commercial merit of new technologies. This type of work is often referred to as “proof of principle” or “reduction to practice,” (e.g., the first demonstration of a new therapeutic approach in an animal model) or “prototype development” (e.g., the creation of an integrated instrument for further testing).

Expectations of Reviewers. LSDF achieves its mission by funding proposals through a competitive granting process, the success of which depends upon superb expert review. As a reviewer considering LSDF proposals, you are expected to protect the confidentiality of the proposals and of the review process itself and to abide by a strict standard in avoiding any conflict of interest. Any concerns you may have about a proposal or your ability to review it impartially should be communicated in confidence to AAAS.

1. *Confidentiality.* The proposals and the review process are confidential. If you believe that additional scientific expertise is needed to review a proposal, you should not solicit it yourself, but instead notify AAAS to make arrangements for outside assistance. You must not contact applicants or the LSDF Board of Trustees under any circumstances. You will be asked to sign a Confidentiality Certification prior to your engagement to review LSDF proposals.

2. *Conflict of Interest.* A perceived or actual conflict of interest in scientific peer review exists when a reviewer has an interest associated with a grant proposal that may bias his or her evaluation of it. There are several bases for a conflict of interest: employment, financial arrangements, personal or professional relationships, or other personal interests. Any one condition may serve to disqualify you from participating in the review of a proposal. If you feel that there may be a conflict or a perception of conflict, notify AAAS, who will make the determination about your ability to review a proposal without conflict. You will be expected to sign a declaration(s) that you have disclosed all conflicts of interest that you may have with the proposals under review.

Revisions to These Guidelines. If revisions or additions to these guidelines are necessary, we will post them on our web site and send them to reviewers through AAAS.

Pre-proposal and Resubmission. The proposals you are reviewing were preceded by a pre-proposal. Principal investigators received written feedback on their pre-proposal from a panel of commercialization experts. Consequently, you may see references in the proposal to that pre-proposal review. Neither pre-proposals nor reviewers' comments on the pre-proposals will be available for the current review. If a proposal you are reviewing is a resubmission of a previously unfunded proposal, you will see a response to the previous full proposal review.

B. Competition Goals and General Proposal Review

Commercialization Grant Goals. LSDF intends to award up to \$750,000 in grants in the 2009 Summer Commercialization Grants Competition. As many as five to six grants could be funded.

The work of successfully completed grants is expected to lower the risk associated with further commercial technology and product development by increasing the probability of follow-on research and development funding (e.g., Small Business Innovation Research and/or private

investment), generation of significant intellectual property, formation of a new company, or licensing to an existing company. LSDF strongly encourages company formation and licensing within Washington to promote the growth of the life sciences industry and maximize the returns to the state. Proposals with the potential to have near-term impact on improving health and health care are especially desirable. However, successful LSDF-funded research and development does not have to result in a market-ready commercial product or service (*i.e.*, one that is ready for commercial sale).

What is Fundable under a Commercialization Grant? All funded activities will be expected to enhance commercialization of a technology that addresses both a market need and a health or health-care need in Washington State. Proposed research and development must be scientifically rigorous and have commercial merit. Funded work must have the potential to be beneficial to health and health care—that is, not merely continuing the current state of care or practice, but changing it demonstrably for the better. Commercialization grants fund research and development leading to new commercial goods, services, and practices, including, but not limited to, new approaches to:

- diagnose, treat, prevent, or manage disease;
- manage health-care delivery environments and systems;
- promote healthy patient behaviors and patient compliance with care-providers' recommendations;
- better integrate care providers, patients, and health-care systems; or
- accomplish any of the above in a more cost-effective manner.

Proposal Rating Process and Evaluations. Review of the scientific and technical merit of the proposal, including the appropriateness of the budget, will be undertaken by your AAAS-organized panel. A separate expert review of the health, health-care, commercial and economic merit of the proposal will be performed by a panel convened by LSDF. Your panel's evaluation of the proposal will be provided to commercial reviewers in advance of their panel meeting. The commercial review panel will incorporate your panel's comments into its own evaluation and make the final funding recommendations to the LSDF Board of Trustees.

The scientific and technical expert review process consists of an individual preliminary evaluation of proposals and a consensus evaluation developed during a review panel discussion. Your objective, in the consensus evaluation, is to analyze the proposals and to place them into one of three rating categories, reflecting your collective recommendation for regarding their suitability for funding.

First, you will review and evaluate proposals individually, according to your judgment of their strengths and weaknesses. Then, following a meeting of the review panel, a consensus evaluation will be written.

Following the competition, principal investigators will receive the consensus reviews of their proposals, so these evaluations must be constructive and written with care, accuracy, and respect. Neither principal investigators nor LSDF will receive individual reviewers' preliminary comments on proposals.

In preparing both preliminary and consensus evaluations, follow these guidelines. The overall evaluation should consider all scientific and technical aspects of the proposal, and, to be of most help to the LSDF and to proposal submitters, it must be thorough. Do not describe the investigator's plans in detail, but briefly describe the overall goals of the proposal. Then summarize the scientific and technical strengths and weaknesses of the proposal. Put strengths and weaknesses in perspective by indicating their relative magnitude. Review and comment on the appropriateness of the budget. The budget justification is in a freestanding document to encourage PIs to provide greater detail and to facilitate your review. If any changes in the budget are recommended, explain what changes should be made and why. In a very strong proposal, the technology will be innovative, the scientific and technical plan and the budget will be appropriate for the work to be performed, the team will be complete and highly qualified to perform the work, and the project outcomes will be feasible and well defined.

C. Detailed Proposal Review Criteria

In particular, read sections 3.3.4, 3.3.5 and 4.2 in the RFP for further context.

Proposals Must Serve the LSDF Mission. The Life Sciences Discovery Fund is an investment on behalf of the citizens of Washington State. All proposals will be expected to enhance commercialization of a technology that addresses a market need in the State of Washington. Successful proposals will also have the potential to contribute to LSDF's primary strategic goals: to improve health and health care, stimulate economic activity, and promote life sciences competitiveness in Washington. As a reviewer, you will not be expected to be familiar with the particular environment of Washington State.

Specific Review Criteria. The principal review criteria for this grant competition are derived from the Fund's mission. Proposals are evaluated with regard to their (1) scientific and technical merit, (2) impact on health and health-care, and (3) commercial merit and future economic returns. **The AAAS scientific and technical review panel will address aspect (1) only.** Construct your discussion of the review criterion with sections describing the proposal's strengths and weaknesses.

In addition, you will be asked to identify any scientific or technical areas or issues that should be addressed if the proposal is considered for funding. If your overall proposal rating is "Not Recommended," note any scientific or technical areas or issues that should be addressed if the

proposal is not funded and the principal investigator resubmits the proposal for a later competition.

AAAS Review Criteria in Detail.

Your evaluation of proposals is expected to be based on your judgment of the extent to which a proposal meets the scientific and technical merit criteria listed below.

Scientific and Technical Merit

The proposed work must be of high scientific and technical merit. The merit of the proposal will be judged by how well it demonstrates the following qualities:

- provides promising new approaches to solving problems in health and health care;
- establishes a framework for the proposed activities with strong potential to achieve novel and important results;
- defines clear and realistic outcomes in the direction of commercial development;
- demonstrates the principal investigator's and any co-investigators' commitment, experience, and ability to execute the proposed work successfully;
- demonstrates, where collaboration is proposed, that investigators have a history of effective collaboration and an appropriate plan to manage the collaborative process; and
- justifies that the budget is appropriate to the scope and goals of the proposed work.

A strong scientific and technical plan will be necessary, but not sufficient, for funding by LSDF. Proposals with flawed scientific or technical plans should not be recommended for funding.

Other Review Criteria

The *Impact on Health and Health Care* and *Commercial Merit and Future Economic Returns* review criteria (described below) are not part of the AAAS panel's charge; these criteria will be evaluated by a commercial expert review panel convened by LSDF. **These criteria are provided for information purposes only so that AAAS reviewers will understand the complete context of the proposals' evaluation for funding.**

Impact on Health and Health Care

The potential impact of the proposed activities on health and health care within Washington State will be judged by how well the proposal demonstrates the following qualities:

- addresses a significant problem in health or health care in Washington State;

Life Sciences

DISCOVERY FUND

- has excellent potential to make a substantial, beneficial, and measurable contribution to improving health and health care in areas such as the following:
 - improved diagnosis, treatment, prevention or management of disease;
 - better management of health-care delivery environments and systems;
 - promotion of healthy patient behaviors and patient compliance with care-givers' recommendations;
 - better integration of care-givers, patients, and health-care systems; or
 - accomplishing any of the above in a more cost-effective manner.

Near-term benefit from the results of the funded work is especially desirable.

Commercial Merit and Future Economic Returns

The commercial merit and potential for future economic returns of the proposed activities will be judged by how well the proposal demonstrates the following qualities:

- provides a clear and understandable description of the product or service that the proposed work eventually aims to develop;
- shows the potential for the new product or service to improve health or health care in Washington State;
- demonstrates that the potential market size, in Washington and beyond, for the proposed product or service is commercially viable;
- provides a compelling argument for the superiority of the proposed product or service over existing products and services;
- presents an intellectual property protection plan for the subject matter of the proposed work that is clear and appropriate for the product or service and the target market;
- demonstrates the applicant organization's commitment to commercialization of the technology under development; and
- shows how LSDF support advances the technology and lowers the risk associated with further work along the commercialization pathway.

The proposed benefits of the work to the state's economic environment must be clear. Benefits may include, but are not limited to, the following:

- measurable gains in cost-effective health care through commercialization of the proposed technology;
- future economic consequences of improvements in health or health care induced by the proposed work, e.g., through restoring work time that would otherwise be lost;
- new training and employment opportunities fostered by the proposed work;
- attracting life sciences researchers, companies, and jobs to Washington;
- creating new companies and jobs and attracting investment capital to Washington;

- creating new or enhancing existing IP that presents attractive licensing opportunities; or
- future research and development and investment funding enabled by the LSDF grant.

D. Clarification of Issues That May Arise During Review

These are not issues that you are required to comment on, but they may arise as you evaluate proposals.

Indirect costs. LSDF grants pay the full costs of accomplishing the proposed activities (*i.e.*, including what are typically called “indirect” costs, and noted on the LSDF budget as “Administrative Costs” and “Facilities Charges”), with all costs expressed as direct costs. Principal investigators are not to apply their organization’s federally negotiated indirect cost rate to their “direct” costs to derive facilities and administration (F & A) charges. Reviewers are not expected to determine how the principal investigator arrived at the F & A charges. Awardees will be required to provide a detailed breakdown of all costs.

Outliers. As reviewers prepare consensus reviews, LSDF asks them to make special note of compelling opportunities within proposals that might otherwise be considered ordinary or overly risky.

LSDF participation in consensus review. An LSDF program staff person may listen in during the consensus review meeting. The program staff person is not acting as a reviewer.

E. Overall Rating

Funding. LSDF grants are highly competitive. Funds available are sufficient for only five to six awards. The commercial review panel will incorporate your recommendation into its summary review and make the final funding recommendations. This integrated review will be presented to the board of trustees, which will take the review into account in making award decisions.

Rating. Use the following general guidelines to rate proposals:

Highly Recommended: scientific and technical merit is excellent

Recommended: scientific and technical merit is good

Not Recommended: scientific and technical merit is poor and lacking in one or more critical areas



Note: this form is a sample and will not be provided to reviewers in the Guide. The actual form and mechanism provided through AAAS' on-line proposal review system.

AAAS Review Comment Form

2009 Summer Commercialization Grants Competition Proposals

Proposal Title:
Principal Investigator:
Applicant Organization:
Request ID:

Rating Scale

Use the following scale in your ratings.

Highly Recommended: scientific and technical merit is excellent

Recommended: scientific and technical merit is good

Not Recommended: scientific and technical merit is poor and lacking in one or more critical areas

Overall scientific and technical merit: Highly Recommended
 Recommended
 Not Recommended

Analyze the proposal's scientific and technical merit and provide constructive comments. Indicate the relative magnitude of both strengths and weaknesses. Comment on the appropriateness of the budget and explain any recommendations for changes.

Overall comments:

Strengths:

Weaknesses:

Life Sciences

DISCOVERY FUND

Note any scientific or technical areas or issues that should be addressed if the proposal is considered for funding. If your overall proposal rating is "Not Recommended", note any scientific or technical areas or issues that should be addressed if the proposal is not funded and the principal investigator resubmits the proposal for a later competition.

Comments: