Program Overview, Eligibility Criteria and Selection Process for

the State of Colorado and University of Colorado Technology Transfer Office (TTO) Bioscience Discovery Evaluation Grant Program

Overview

The flow of inventions from research universities to the marketplace is often pictured as a linear path where good ideas obtain funding. However, market financial mechanisms are imperfect when applied to university technology commercialization; consequently, many good technological ideas do not receive funding and when they do, the path is often circuitous. A funding gap exists between inventions that exhibit commercial promise and adoption of the technologies by the commercial sector. Preclinical research studies for developing nascent university bioscience IP are necessary for the purposes of broadening patent claims and enhancing licensing prospects. The focus of this preclinical research is typically related to understanding or enhancing the most appropriate application of the technology, such as in the case of medical device technologies, building a bench prototype.

The State of Colorado realizes that a funding gap exists for university inventions and has addressed this problem for biosciences related IP through the creation of a law that provides matched funding to Colorado research institutions. The bill called the "Advancement of New Bioscience Discoveries at Colorado Research Institutions Through Evaluation and Making an Appropriation" is essentially a State bioscience proof of concept (POC) program. This program provides funds to be used on a one to one matched basis for development oriented research to accelerate commercialization by reducing inventions to operational practice and validating their ability to address significant market applications. Commercialization potential from the selected research projects should be realized by companies operating in Colorado. Typical examples of development research objectives that may dramatically increase commercial value and applicability for inventions are:

- Advancement of hypothesis testing, such as testing an idea or in silico prediction with in vitro experiments, extending in vitro results with in vivo experiments, or building a bench prototype;
- Target validation screening small molecule libraries, producing antibodies, or selecting target-binding peptides or aptamers; and
- Pre-commercial research validate academic software code for commercial application, drug formulation/reformulation, or development of alternative applications for technology.

Eligibility Criteria

Principal Investigator: University of Colorado Faculty or Research Staff

Research Topic: Advancement of a bioscience invention which has been submitted as a written disclosure to the CU Technology Transfer Office by September 15, 2006, where the intellectual property rights to the invention have not been obligated to any private entity.

Under the rules of the program, the TTO may enter into a legal agreement (option or license) for the commercial disposition of the invention after 50% of the total budget costs of the project have been expended or as approved by the State Office of Economic Development.

Eligible Fields of Research: Development of therapeutics, diagnostics or devices to improve human health or agriculture.

Funding Amounts: A minimum of \$50,000 and a maximum of \$200,000

Project Duration: Maximum time 18 months, but projects of shorter duration are encouraged.

Designated Facilities and Administration Fee: 8 % applied to the entire budget.

Commercial Disposition: Given the program is partially funded by the State of Colorado, it is expected that the commercialization of the intellectual property will occur within the State. Accordingly, background and project-derived intellectual property should be primarily directed to either existing Colorado bioscience companies or companies that will be formed (start-ups) and operated in Colorado.

Selection Process

The State bioscience preclinical research program awards levels (which include an 8% facilities and administrative cost) will be between \$50k to \$200k. Technologies will be selected by the following competitive application process.

- Step 1- CU investigators must have submitted an Invention Disclosure before **Sept 15**, **2006**. Any invention disclosure in the area of human therapeutics, diagnostics or devices that CU TTO has received and is not optioned or licensed to a commercial entity by this date will be considered an eligible invention for this program.
- Step 2- Proposals from inventors must be submitted in person or on-line to the TTO by 5 PM on **September 27, 2006**. Investigators will have worked with their campus Office of Grants and Contracts to prepare preliminary budgets. The First Level Review will be conducted by TTO and sponsored program staff to determine if the proposal fits the program criteria as articulated in the program Request for Proposals (a 2-day process). Investigators whose applications do not survive this first level review will be informed by e-mail at the conclusion of the First Level Review.
- Step 3 The pool of proposals surviving First Level Review will be further assessed by CU TTO staff in Second Level Review. In the event that the aggregate requests for funding exceed \$2.06M, TTO staff will cull the proposals to obtain a number commensurate with funding that is between 1.5 and 2 times the \$2.06M available for funding. This 5-workday process will be completed by **October 4th**, **2006**. Investigators whose applications do not survive this Second Level Review will be receive e-mail notification at the conclusion of the review.

Step 4 - Successful proposals will move to the Third Level Review and will be distributed via e-mail to an independent panel of partners and associates in biotechnology venture capital firms that have a relationship with CU TTO. This panel will conduct the Third Level Review during the Oct 11th to 18th period. The proposal's PI will deliver an in-person 10 minute presentation to the panel. TTO staff will follow that presentation with a maximum 5-minute discussion of intellectual property and commercialization strategies. Panel reviewers will have 10 minutes to ask questions of the PI and TTO staff. At the conclusion of questions, the PI will leave the room and the panel will take five minutes to discuss the proposal. The discussion will produce a consensus numerical rating for each proposal. After each of the proposals have been presented and discussed, the entire group of proposals will be ranked by the review panel based on numerical ratings and any appropriate additional considerations. The Third Level Review will result in one of the following outcomes: (1) a proposal is recommended for full funding without any change of development objectives, work activities or budget; (2) a proposal is recommended for either increased or decreased funding and/or a change of development objectives or work activities; (3) a proposal is declined with written feedback provided to the PI.

Step 5- TTO will work with investigators whose proposals received a recommendation to revise budget or objectives. These proposals will be revised in conjunction with the appropriate campus Office of Grants and Contracts.

Step 6. Recommended projects will be submitted to the Colorado Office of Economic Development and International Trade (OEDIT) by **October 23rd 2006** for State review and formal approval. The State review will be completed no later than **November 24**, **2006**.

Step 6 - OEDIT will work with the campus Offices of Grants and Contracts to establish a contract for transferring funds to the University. Similarly, TTO will work with the campus Offices of Grants and Contracts to transfer the matching funds. The University will set up accounts and the research can begin by the beginning of **January 2007**.

Questions and Addition Information

Applicants are highly encouraged to discuss their research project ideas with the TTO staff person assigned to their invention disclosure. If you don't know the manager assigned to your invention, for UCB and UCCS please contact Kate Tallman at 303 492 5732 or kate.tallman@cu.edu; and for UCDHSC please contact Rick Silva at 303 724 0222 or rick.silva@cu.edu.