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Award Abstract #0951919

QoLT Foundry - New Business Development Generating from an ERC's Research

NSF Org: [EEC](#)
[Div Of Engineering Education and Centers](#)

Initial Amendment Date: November 25, 2009

Latest Amendment Date: July 30, 2012

Award Number: 0951919

Award Instrument: Standard Grant

Program Manager: Barbara H. Kenny
EEC Div Of Engineering Education and Centers
ENG Directorate For Engineering

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End Date: November 30, 2012 (Estimated)

Awarded Amount to Date: \$1,500,260.00

Investigator(s): James Osborn oz@cmu.edu (Principal Investigator)
Richard McCullough (Former Principal Investigator)
Alan Stone (Co-Principal Investigator)

Sponsor: Carnegie-Mellon University
5000 Forbes Avenue
PITTSBURGH, PA 15213-3815 (412)268-8746

NSF Program(s): EEC Innovation Awards

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ABSTRACT

The QoLT Engineering Research Center (ERC) is devoted to carrying out research needed to advance technology needed to improve the quality of life of the aging and disabled. This ERC has been experimenting with a Foundry to identify and assist small start-up firms working on technology arising from the ERC's research. This proposed effort will expand the Foundry as a broader base for regional economic development and achieve three objectives: 1) ensure that spin-off companies emerge from the QoLT Center more speedily and on a sounder footing than might otherwise be possible for start-up firms, 2) make the QoLT Foundry a permanent feature of the QoLT ERC and 3) refine and codify the ERC's technology transfer processes. The effort is a partnership between the ERC, Carnegie Mellon University and the University of Pittsburgh, industry, local foundations, and regional

economic development organizations.

Intellectual Merit: This project will improve a methodology for commercialization in the ERC that is already showing signs of promise. That methodology injects non-technical, market-based considerations into technology and product development at a much earlier stage than traditional academic research, and parallelizes a number of the analyses so that the conventionally linear process is accelerated. Over the next three years it will be refined by tracking and analyzing each product definition and company formation to develop an understanding of the various development cycles for appropriate intervention, thereby generating a model and set of criteria for optimizing resource application in subsequent efforts. The proposed effort will implement and evaluate a strategy for narrowing the funding gap (commonly referred to as the "Valley of Death") that nascent technology based companies experience while transitioning from university to private sector. Students from Carnegie Mellon and University of Pittsburgh in engineering, computer science, business, innovation management, and law are involved. The augmented Foundry effort will develop a better understanding of how to draw non-technical students into technology commercialization, and formally assess participation of all types of students.

Broader Impact: The broader impacts are strongly focused on generating new business entities that will create new jobs and economic activity. The strong commercialization imperative has attracted additional industrial members. The expanded Foundry will improve the probability of success of QoLT Center spin-off companies, thereby reducing the time-to-market for QoLT-generated technology. There will be measurable economic impact in the Pittsburgh region; well over 100 jobs should be created within five years. The QoLT Foundry will very likely become a model for commercialization of ERC and other academic research, increasing their value as economic engines. The impact to society could be substantial as this program will serve as an integrated research / education / technology commercialization model that can be scaled across the host campuses and beyond. This activity broadens the participation of those with disabilities through the nature of QOL technology development.

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National Science Foundation, 2415 Eisenhower Avenue, Alexandria, Virginia 22314, USA
Tel: (703) 292-5111, FIRS: (800) 877-8339 | TDD: (800) 281-8749

