

APPROPRIATIONS REQUEST FORM OREGON HOUSE DELEGATION FISCAL YEAR 2010

DEADLINE FOR SUBMISSION: FEBRUARY 13, 2009

1. **Project Title:** ONAMI Miniaturized Tactical Energy Systems Development

2. **Organization Name and address:**

Oregon State University University of Oregon
Corvallis, OR Eugene, OR

Portland State University Oregon Nanosciences and Microtechnologies Inst
Portland, OR Corvallis, OR

3. **Primary Contact name, phone number, mobile phone number, fax number and email:**

Principle Investigator	ONAMI	Lobbyist
Richard Peterson	Skip Rung	Jennifer Schafer
(541) 737-7095	(541) 713-1331	202-554-5828

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4. **Project Location Address (if different from Organization):**

Takes place at all of the institutions

5. **Please describe the requesting organization's main activities, and whether it is a public, private non-profit, or private for-profit entity:**

Public University
Research, Development and Deployment activities

6. **Briefly describe the activity or project for which funding is requested (please keep to 500 words or less.)**

The funding will support the development of miniaturized tactical energy systems for a wide range of military and subsequent commercial applications. The research initiative is affiliated with the Oregon Nanoscience and Microtechnology Institute (ONAMI) and will use capabilities being established at ONAMI to miniaturize a wide range of important tactical energy systems including soldier power systems and advanced cooling units for forward deployed operations. We are requesting continued funding in FY 10. ONAMI is a joint research institute of Oregon State University, University of Oregon, Portland State University and PNNL focused on the applications of mixed nanoscale and microscale systems to develop advanced technology such as miniaturized tactical energy systems. ONAMI will work with Ft. Belvoir (Army) to provide tactical energy systems for a range of Army applications. As an example of our success, Ft. Belvoir received budgeted FY 05 through FY 09 funding to support the development of tactical cooling concepts. These cooling systems are now being demonstrated using critical technology developed under previous years congressional interest support. Other technologies in the tactical

energy systems area are also in development including several currently being commercialized in Oregon. These involve nanomaterial production, and two types of biodiesel production which are important energy topics for the nation as well as the military. We expect that our request for continued investment will result in identification and development of more micro/nano-scale technologies suitable for military co-development and commercialization in Oregon

7. Has this project received federal appropriations funding in past fiscal years?

Yes

7a. If yes, please provide fiscal year, Department, Account, and funding amount of any previous funding.

Department of the Army

RDT&E

Line Name:#18, Electronics and Electronic Devices

PE # 0602705A

\$2.5 in 2009, \$2.5 M in 2008, \$1 M in 2007, \$2 M in 2006 and \$1 M in 2005

8. Federal agency and account from which funds are requested (Please be specific –e.g. Department of Housing and Urban Development, Economic Development Initiatives account):

Department of the Army

RDT&E

Line Name:#18, Electronics and Electronic Devices

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9. What is the purpose of the project? Why is it a valuable use of taxpayer funds? How will the project support efforts to improve the economy and create jobs in Oregon?

The purpose of the project is to seed high-risk research projects with DoD clients that will lead to research growth in Oregon (follow-on projects) and commercialized technology (both by industry incumbents and ONAMI-supported startup companies).

ONAMI's areas of innovation are right in the "sweet spot" (energy systems, green nanotechnology) or in essential support (measurement) science of areas of social and economic importance – already identified in stimulus legislation as priorities.

Research funding has both direct stimulating effect (most funds go to graduate student, technician and researcher salaries) and investment effect (develop IP that is more likely to be commercialized in Oregon since the research was done here).

10. Have you requested funding for this project from other Members of Congress?

If so, who?

The Entire OR Delegation, as in previous years

11. Funding Details:

a. Total project cost (all funding sources and all years): \$20,000,000 federal/\$7-13 million state and private

b. Amount being requested for this project in Fiscal Year 2010: \$5,000,000

c. What other funding sources (local, regional, state) are contributing to this project or activity? (Please provide specific dollar amount or percentage.)

ONAMI has received over \$70 million in matching investment funds from state and private sources. And since inception, the researchers associated with ONAMI have won in excess of \$100 million in competitive research grants. For comparison purposes, during 2008, ONAMI received over \$30M of which only about \$7M was in the form of congressionally directed monies.

d. Do you expect to request federal funding in future years for this project? Unknown, depends upon establishment of new federal programs that would fund this type of research that is essential to the nation's nanotechnology agenda.

e. Breakdown/budget of the amount you are requesting for this project in FY 2010.

(e.g. salary \$40,000; computer \$3,000):

Funds are primarily for Research and Development (salaries and stipends, instrumentation and materials). Approximate breakdown; 40% for equipment (\$2,000,000), 50% for research including faculty and graduate student salary/grants (\$2,500,000), and 10% for other ONAMI activities including center development, industry and community outreach, clerical and support services, etc. (\$500,000)

f. Please list public or private organizations that have supported/endorsed this project:

Battelle Memorial Institute/Pacific Northwest National Laboratory
Mike Kluse, Senior Vice President
509-375-6600

Hewlett-Packard
Sam Angelos, VP Technology Development Operation
541-715-2163

FEI Company NanoTech
Annette Kolodzie, Director
503-726-7500

US Army CERDEC
Dr. Edward J. Plichta
732-427-2691

g. Is this project scalable? (i.e. if partial funding is awarded, will the organization be able to use the funds in FY 2010?): Yes