

APPROPRIATIONS REQUEST FORM OREGON HOUSE DELEGATION FISCAL YEAR 2010

DEADLINE FOR SUBMISSION: FEBRUARY 13, 2009

1. **Project Title:** ONAMI Safer Nanomaterials and Nanomanufacturing

2. **Organization Name and address:**

University of Oregon
Eugene, OR

Oregon State University
Corvallis, OR

Portland State University
Portland, OR

Oregon Nanosciences and Microtechnologies Inst
Corvallis, OR

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

Principle Investigator
Dr . Jim Hutchison
(541) 346-4228

ONAMI
Skip Rung
(541) 713-1331

Lobbyist
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skip@onami.us

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jasca@verizon.net

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.)**

This activity uses proactive strategies to develop inherently safer and greener nanomaterials and nanomanufacturing methods, which directly impact the Defense department's need for high performance materials. Recent achievements in this project include development of a library of greener engineered nanomaterials with widely tunable properties, concomitant assays for biological testing of nanomaterials to ensure safety, creation of a nanomaterials-biological interactions knowledge-base designed to collect data on nanomaterials and predict potential biological impacts, and development of nanomanufacturing methods (e.g. parallel microchannel reactors) to scale quantities for high volume production of nanomaterials.

Three general areas of activity included within the initiative are: rational design of inherently safer and greener materials based upon unique properties found at the nanoscale, systematic assessment of the biological impacts of engineered nanomaterials, and development of

technology for high volume manufacturing of high-performance nanomaterials. The application of this research facilitates application of nanomaterials and manufacturing in important defense technologies including energy production and storage, nanoelectronics and nanophotonics, medical diagnostics and therapeutics, drinking water purification and environmental monitoring & remediation systems. The initiative has increased its focus on energy because of the essential role that nanotechnology will play in addressing the Nation's energy problems. The SNNI's activities are essential because technological solutions that promise clean energy need to employ safe/green nanomaterials and processes.

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 Air Force
RDT&E
Materials
PE# 0602102F

FY09: \$4M; FY08: \$3.2 M; FY07: \$2.3 M; FY06: \$1.7 M; FY05: \$2.5 M

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 Air Force
RDT&E
Materials
PE# 0602102F

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? Currently SNNI is playing a critical role in developing this field and providing leadership for the Nation in this emerging field. If other federal programs are established that fund this type of research that is essential to the nation's nanotechnology agenda we would not need to request funds in the future.

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 for Research and Development (salaries and stipends, equipment and materials)

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

Battelle Memorial Institute/Pacific Northwest National Laboratory
Dr. Rod Quinn, CTO
509-375-2250

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

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

Polymer Branch
AFRL, Materials Directorate
2941 P Street
Wright Patterson AFB, OH 45433
Dr. Peter Mirau (Peter.Mirau@wpafb.af.mil)
937-255-9153; fax 937-255-9157

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