

New Hampshire Innovation Research Center



www.nhirc.unh.edu

Granite State Technology Innovation Grant

Proposals are sought for partnership projects between New Hampshire companies and academic institutions. NHIRC matching funds are specifically designed to expand the research activities of an industry partner by providing funds for collaborations.

While projects may be proposed in any discipline, applications are particularly encouraged in the following areas:

- Bioinformatics
- Computational Tools
- Environmental Technologies
- Geospatial Analysis
- Information Technology
- Materials Science
- Medical Technologies
- Nanotechnology
- Optics
- Precision Engineering
- Robotics
- Sensors

Approximately \$400,000 has been designated to fund four to eight awards in the current fiscal year, to be matched 1:1 by partner companies in cash or in kind. NHIRC funding is contingent upon state appropriations.

Program information is available online at www.nhirc.unh.edu.

Background: In 1991 the NHIRC was created by the New Hampshire Legislature for the purpose of providing a mechanism to increase collaboration between businesses and university-based research to promote applied and basic scientific research, engineering, and associated marketing and technology transfer, and to support the New Hampshire industrial and business community for the purpose of creating high quality jobs through technology development and innovation. The state Department of Resources and Economic Development distributes funds to NHIRC and refers companies to NHIRC for assistance.

- Over \$4.5 million awarded
- 156 technical assistance grants
- 111 NH companies

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Building Partnerships for Technology-Based Economic Development

Established by the Legislature in 1991, the NHIRC helps NH companies find the expertise they need at research universities to solve scientific or technical problems. The NHIRC has awarded more than \$4.5 million in state funds, in 151 grants to university labs, to benefit 106 companies. Since 2004, results from NHIRC projects have enabled companies to receive \$1.267 million in federal grants for technology

Suflex Newmarket

Makes flexible sleeving and tubing products for electrical insulation.

Founded: 1946

Annual sales: \$6 million

Employees: 46



NHIRC grants totaling \$50,269, matched 100% by company contributions, funded research projects with P.T. Vasudevan, Ph.D., UNH professor of chemical engineering.

Goal: Improve efficiency and reduce costs in the chemical formulation and drying process.

Results: Increase of 50% in production process allowed Suflex owners Al Ferrari (left) and Gerry Landry to add nine jobs to its site in the historic downtown mill. Former managers Ferrari and Landry bought the company when it was on the verge of closing, and turned it around.

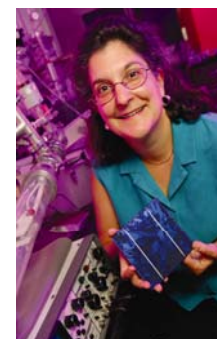
GT Solar, Inc. Merrimack

Product: Photovoltaic manufacturing: solar cell fabrication, equipment, automated sensor-controlled systems.

Founded: 1994

Annual sales: \$58 million

Employees: 130



NHIRC grants totaling \$206,666, matched 119% by company contributions, funded research projects with Carmela Amato-Wierda, Ph.D., UNH associate professor of materials science.

Goal: Improve chemical vapor deposition processes for polysilicon growth and anti-reflective silicon nitride coating at atmospheric pressure.

Results: Lab prototype used to design a full-size polysilicon reactor, which will reduce the cost of producing solar cells. Tested at DOE lab; pending design modifications, reactor sales expected to reach \$50-\$100 million per year within two years.

Pleasant View Gardens Loudon

Wholesale plant grower and supplier; new varieties rigorously tested in Proven Winners® trials.

Founded: 1976

Annual sales: \$20 million

Employees: 125-225 (seasonal)



NHIRC grants totaling \$110,965, matched 100% by company contributions, funded research projects with Rosanna Freyre, Ph.D., (above), UNH research assistant professor of plant biology.

Goal: Improve blue and orange cultivars of an annual ornamental flowering plant, develop breeding lines of other ornamentals and search for new genera.

Results: Two patents awarded, seven pending, four breeding lines in Proven Winners® trials. Increased volume of successful breeding lines will yield higher sales.

Warwick Mills New Ipswich

Develops high-performance composites for aerospace, industrial, and recreational use.

Founded: 1888

Privately held

Employees: 130



An NHIRC grant totaling \$99,000, matched 100% by company contributions, is funding research with Jack Hoopes, Ph.D., Dartmouth College assoc. professor of surgery and medicine (depicted are lab manager Rendy Strawbridge and bioengineering student Cathy Gaito).

Goal: Evaluate design of medical graft scaffolds that are hospitable to growth of new tissue, thereby reducing incidence of rejection, scarring and calcification.

Results: In progress. Anticipated results: testing in humans, FDA approval, and 5-10 new jobs annually.