The NHIRC matches businesses in New Hampshire with dollars to support translational research efforts that further growth and development of New Hampshire businesses, increasing job growth, opportunities, and revenues. The NHIRC was legislated in 1991, Title 15 Chapter 187A.

**NHIRC Highlights**

- 650 jobs created or retained
- 20:1 total leverage for state funds
- $32MM SBIR awards for NHIRC projects
- $25MM in additional federal funding for NH educational institutions through EPSCoR
- Awardees have raised over $900MM in additional funding creating many marketed products

**Questions?**
Contact Tim Willis at nhirc.info@unh.edu; 603.862.0948

**The NHIRC Oversight Committee 2015**
These positions are legislated or appointed by the NH Governor.

- **NH Senate**
  - *Open*
  - Martha Fuller Clark, Senator

- **NH House of Representatives**
  - Christopher Way, Interim Director, Division of Economic Development
  - John Orcutt, Professor of Law
  - Robert Gyurik, Pharmaceutical Consultant
  - Richard Powers, VP and Deputy General Manager, BAE Systems
  - Jenny Houston, VP of Business Development, Warwick Mills
  - Jan Nisbet, Senior Vice Provost for Research
  - Glenn Shwaery, Associate Dean for Research
  - Marc Sedam, Executive Director
AavidThermalloy, Laconia, NH (‘95, ‘02)
“We entered the new market area of heat pipes through a NHIRC grant by working with UNH chemical engineering professor to study the corrosion and aging to improve the reliability of these heat pipes. UNH had equipment not available at Aavid and the expertise needed to develop a predictive aging model. Aavid officials estimated this market to produce between $500,000 and $1 million within the following year, and add about eight new jobs.”

~ Craig Wood, CEO

“The technology developed in this project will allow us to broaden AEC’s markets by expanding the range of components that can be fabricated using 3D weaving and resin transfer molding. While these technologies are relatively new, they are being used in some major programs, such as the CFM LEAP-X engineer program, and the landing gear braces for the new Boeing 787 Dreamliner. For growing, leading technology companies like AEC, it is crucial to be able to participate in high risk-high impact research through NHIRC. It should also be noted that NHIRC funding is also crucial for UNH in providing its faculty and students the opportunity to work on cutting-edge research in collaboration with the industry, thereby providing the next generation of engineers and scientists who will continue to grow the economy of our State.”

~ Jon Goering, Divisional Chief Technology Officer

Did you know...

Albany Engineered Composites (‘99, ‘01, ‘09, ‘10) has moved its global headquarters to Rochester, NH. Albany employs 6,200 people worldwide.

Presby Environmental (‘01) is an innovative environmental organization that engineers new technology to change the way the world approaches wastewater treatment. Today the company is working at the cutting edge of water pollution control to help protect and preserve our most precious natural resources.
Velcro, Manchester, NH (‘08, ‘09, ‘11)

“The NHIRC eased Velcro’s transition to collaborative interaction with UNH by matching their investment and thereby doubling their investment’s impact. Our project is aimed at developing new fastening technologies based on nanoscale structures developed at UNH (i.e., new nanotechnologies). Velcro is likely to utilize this developing technology for years to come to produce next generation fastening products. This would favorably impact NH’s economy by increasing manufacturing jobs, not to mention corporate tax revenues.”

~ Glen Miller, Principal Investigator

Pleasant View Gardens, Loudon, NH (‘02, ‘04)

“We are the largest wholesale nursery in New Hampshire and a founding partner in Proven Winners, the #1 nationally recognized consumer brand of gardening plants. Nine of the developed varieties, developed through the NHIRC project have been patented. Increased sales of these breeding lines have yielded higher profits for our company.”

~ Henry Huntingdon, Founder

Did you know...

Pleasant View Gardens (‘02, ‘04) has researched, experimented with and grown millions of plants, selecting the very healthiest and hardiest assortments. The company has become an industry pioneer in energy and labor savings.
Celdara Medical, Lebanon, NH (’08, ’10)
“Without our first NHIRC award we may not have been able to raise angel funding in such a difficult economic climate, we would not have a CLIA-certified lab in which to develop and bring to market a diagnostic/prognostic/predictive test for patients with scleroderma. Without it, we may have had to close our doors, or more likely, we may well have opened our doors in VT or MA.”

~ Jake Reder, CEO

ImmuRx Inc., Lebanon, NH (’07, ’09)
“An IRC grant catalyzed the start of ImmuRx, Inc., a biotechnology company. It got us started with a grant of $69,000. We have since raised over $5,000,000, hired skilled workers and moved our cancer treatment toward commercialization. We are on target to keep growing.”

~ David Delucia, CEO

Did you know...

Celdara (’08, ’10) has created a CLIA-certified diagnostic/prognostic/predictive test for patients with scleroderma.

GlycoFi (’03) was founded in 2000 with the mission of dramatically improving the capacity and cost of producing human therapeutic proteins, while simultaneously enhancing their efficacy and safety as therapeutics. GlycoFi was acquired by Merck in 2006 for $400MM.
Roy Matheson and Associates, Keene, NH ('09)

“This research project developed a bridge between the Electrical and Computer Engineering and the Occupation Therapy Departments at UNH and created student interest by applying their knowledge to evaluate and enhance the equipment used to perform functional capacity evaluations (FCE) for Heart Rate Monitors, Blood Pressure Monitors, and Load Cells.”

~ John LaCourse, UNH Professor of Electrical and Computer Engineering

Graphicast, Inc., Jaffrey, NH ('07)

“The NHIRC project improved an existing process to make it more efficient. This helped to improve production rates, improve quality, and increase capacity.”

~ Val Zanchuk, President

Did you know...

IXXAT ('06) is one of the leading suppliers of data communication technology for the automation and automotive industry with a continual and considerable amount of investment in research and development of innovative, powerful and cost effective products and constant training for our employees to insure their familiarity with the latest technological advancements.
New Hampshire Optical Systems, Nashua, NH (‘12)

“As a telecommunications provider of fiber optic infrastructure solutions, our NHIRC award allows us to research software-defined networks that offer increased broadband speeds and capabilities to businesses of all sizes across the state. The anticipated result is that we will be able to bring network technology to broadband companies who want to expand Internet and communication products to under-served and un-served areas in New Hampshire.”

~ Rob Carmichael, President

Warwick Mills, New Ipswich, NH (‘06)

“Warwick worked on a project with Dartmouth to advance materials for medical applications. The NHIRC grant positioned us to secure $150,000 in National Science Foundation funding and a new federal grant has the potential to secure an additional $500,000 later this year. This means jobs for Warwick and jobs for New Hampshire.”

~ Jenny Houston, VP of Business Development

Did you know...

Hitchiner (’11) is the premier supplier of complete-to-print, high-volume, complex thin-wall investment castings and fully-finished casting components to industry. Hitchiner has over 2,000 employees worldwide and revenues of $200MM.

AIRMAR Technology Corporation (‘96, ’13), a NH small business formed in 1982, is a designer and manufacturer of marine electronics, and has had steady growth in business volume and size. Nearly 100% of AIRMAR’s products are designed and built in NH and construction of a second manufacturing building began in Fall 2012.
Districts 13, 14, 19, 22

<table>
<thead>
<tr>
<th>District 13</th>
<th>Senator Bette R. Lasky</th>
<th>NHIRC Proposal Dollars</th>
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<tbody>
<tr>
<td>2007</td>
<td>Sky Skan, Inc.</td>
<td>Nashua</td>
</tr>
<tr>
<td>2000</td>
<td>Resonetics, Inc.</td>
<td>Nashua</td>
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<tr>
<td>1998</td>
<td>Lancast</td>
<td>Nashua</td>
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<td></td>
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<th>District 14</th>
<th>Senator Sharon M. Carson</th>
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<tbody>
<tr>
<td>2011</td>
<td>Conductive Compounds</td>
<td>Hudson</td>
</tr>
<tr>
<td>2009</td>
<td>Presstek Inc.</td>
<td>Hudson</td>
</tr>
<tr>
<td>2007</td>
<td>Presstek Inc.</td>
<td>Hudson</td>
</tr>
<tr>
<td>2002</td>
<td>Durham Research</td>
<td>Londonderry</td>
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<td>2001</td>
<td>Durham Research</td>
<td>Londonderry</td>
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<td>2000</td>
<td>Diatide</td>
<td>Londonderry</td>
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<td>1997</td>
<td>Acu-Gage</td>
<td>Hudson</td>
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<tr>
<td>1997</td>
<td>Admix</td>
<td>Londonderry</td>
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<td></td>
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<th>District 19</th>
<th>Senator Regina Birdsell</th>
<th>NHIRC Proposal Dollars</th>
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<tbody>
<tr>
<td>1999</td>
<td>Johnson / Johnston Associates</td>
<td>Hampstead</td>
</tr>
<tr>
<td>1995</td>
<td>Built-On Technology</td>
<td>Derry</td>
</tr>
<tr>
<td>1993</td>
<td>Fireye</td>
<td>Derry</td>
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<th>Senator Chuck Morse</th>
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<tbody>
<tr>
<td>2011</td>
<td>Design Mentor, Inc.</td>
<td>Pelham</td>
</tr>
<tr>
<td>2007</td>
<td>AmberWave System Corporation</td>
<td>Salem</td>
</tr>
<tr>
<td>2001</td>
<td>Chart Inc., Storage Systems Division</td>
<td>Plaistow</td>
</tr>
<tr>
<td>2001</td>
<td>Ion Physics Corporation</td>
<td>Atkinson</td>
</tr>
<tr>
<td>1998</td>
<td>Process Engineering, Inc. (now Chart Inc.)</td>
<td>Plaistow</td>
</tr>
<tr>
<td>1997</td>
<td>Advanced Device Technologies</td>
<td>Salem</td>
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<tr>
<td>1993</td>
<td>Bioquest</td>
<td>Atkinson</td>
</tr>
<tr>
<td>1993</td>
<td>Global Ozone Solutions</td>
<td>Atkinson</td>
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<td></td>
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<td><strong>$1,158,462</strong></td>
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Conductive Compounds, Hudson, NH ('11)

“The fact that a small business in the state of New Hampshire was able to join forces with a small group of researchers at a state university to participate in what is considered the current “holy grail” of material science and commercialization is extraordinary. My company employs 13 people, we are currently hiring three more and have sustained double digit growth over the past three years despite the economy. We have sales offices throughout Europe, Israel, Russia and in three key areas in Asia. Research into nanoparticle metals was way beyond the scope of a small business like mine, but with the NHIRC matched funding and the resources at UNH, we will end with a commercially viable means to manufacture and sell specialty inks and coatings.”

~ Don Banfield, CEO

Design Mentor, Inc., Pelham, NH ('11)

“We view our current NHIRC award as THE critical link between our internal investment in the VentriFlo technology and having it further supported by a combination of SBIR grants and Corporate Sponsorships. I wish I had known of the NHIRC Match Grant process several years ago. It provides access to critical resources at a tenuous point in technology development that are very difficult to afford any other way. The award is, in essence, a very important “multiplier” to our efforts.”

~ Doug Vincent, President and CEO

Sky Skan, Nashua, NH ('07)

“This NHIRC project ‘Climate and Change’ visualization for immersive Full Dome Environments allowed us to find new ways of making NOAA data products more widely accessible with an immediate value of helping the public understand meteorological and ocean current concepts.”

~ Colin Ware, UNH Data Visualization Lab

Did you know...

At Sky Skan’s world headquarters in Nashua ('07) they design and install the world’s top full-dome planetariums and visualization theaters which are in use at world-renowned institutions such as Cunard’s Queen Mary 2 (the only planetarium at sea) and the Smithsonian Institution’s National Air and Space Museum.
ArgenTech Solutions, Durham, NH (‘12, ‘14)

“Many industrial, automotive, military, and manufacturing markets need new solutions to ensure safety in case of a lack or loss of power. This innovation will bring improved protection for workers and offers energy-saving lighting alternatives in sight-limiting environments. The partnership with UNH allows us access to specialized equipment and research knowledge, the assistance of talented UNH students to hone organic talent, and an environment in which to test our products before commercialization.”

~ Russell Mason, VP Marketing & Sales and CIO

Xemed, Durham, NH (‘06)

“A breakthrough in medical imaging, achieved through funding from the IRC, has also been the catalyst for acceleration of commercial success for Xemed. Xemed recently received a contract to develop its imaging technology from a major pharmaceutical company. Several research hospitals world wide are lining up to acquire Xemed’s recently announced xenon polarizer product. Each sale will produce close to $1MM in revenue. Many states have state-funded mechanisms to attract and support small technology businesses. Xemed would not have achieved its present trajectory with out grant assistance from the IRC.”

~ William Hersman, CEO and Founder

Did you know...

Applied GeoSolutions (‘09) was formed in 2000 to promote, support and provide scientifically sound cutting-edge geo-spatial technologies, biogeochemical models and integrated spatial information services for greenhouse gas (GHG) emission, ecosystem modeling, and agricultural and forestry management.

Hutchinson Sealing Systems (‘12) manufactures vehicle weather strips for cars, trucks, and RVs as well as engineered seals used for HVAC systems, computer cabinets, and other containers. Hutchinson is known for innovation with over 200 engineers and scientists dedicated solely for this purpose with proven innovation in materials, process and product.
Itaconix, Hampton Falls, NH ('08, '09, '11)
“Our privately-held green technology company founded in 2008 develops polymers that are derived from renewable resources and that replace the petroleum-based chemicals used in products such as detergents. Our company has demonstrated remarkable growth and in 2009 announced the commercial launch of its first two products. Most recently, we have filed 5 patents related to our NHIRC projects.”

~ John Shaw, CEO and Co-Founder

Foss Manufacturing, Hampton, NH ('08)
“The IRC award allowed us to carry our analytical work and gain the understanding needed to optimize the processing of an antimicrobial agent into a polymer. At the same time we worked in parallel with the FDA to gain FDA clearance on the safety and efficacy of the technology. The recent FDA clearance and ongoing process optimization, developed in part through this research program, will help us to attain more sales.”

~ Jacqueline Traynor, Director of Research & Product Development

Did you know...

SleepNet ('96) created a sleep mask “MiniMe” which has been approved by the FDA for pediatric use—the only true gel cushion, one-of-a-kind mask for kids.

Itaconix ('08, '09, '11) is a green technology company developing, manufacturing and marketing environmentally friendly polymers derived from renewable resources. The company has hired 12 employees in the past two years alone.

Bentley Pharmaceuticals ('00, '01, '02, '03, '05) was sold to Teva Pharmaceuticals for $360MM in March 2008. It created a spin-off, CPEX Pharmaceuticals, in that transaction which was sold for $72MM in April 2011.
The NHIRC Proposal Dollars by County

- COOS: $317,332
- CHESIRE: $181,791
- CLAREMONT: $72,535
- MERRIMACK: $3,472,689
- BELKNAP: $570,126
- SULLIVAN: $112,776
- ROCKINGHAM: $6,431,744
- HILLSBOROUGH: $5,586,414
- STRAFFORD: $3,687,093
- CARROLL: $6,431,744
- HILLSBOROUGH: $5,586,414
- STAFFORD: $3,687,093