

Learning Science Through Research (LSTR) NIH Science Education Partnership Award

Science is best learned by doing what scientists do, especially in performing authentic scientific investigations where the unknowns can be many, the experimental design complex, and the instruments and expertise advanced.

The National Institute of General Medical Sciences (NIGMS) at the National Institutes of Health (NIH) has awarded a ~1.2 million dollar 5-year grant to the New Hampshire Academy of Science. The grant will be used to help students in secondary schools in northern NH and VT perform authentic original STEM research and present their findings to the scientific community.

To enable this ambitious goal the grant will:

- Provide research experiences at the NHAS research lab in Lyme, NH
- Loan middle and high schools research quality instruments
- Provide advance instrument training and continuing education courses to STEM teachers
- Assist schools in transforming their STEM programs to enable discovery-based science
- Provide long-term mentors for students interested in STEM careers
- Sponsor students to present their research at national professional STEM meetings
- Assist students in publishing their research
- Mentor pre-service teachers in performing authentic STEM research in schools
- Guide the development of novel science curricula for middle and high school students

The NH Academy of Science has a large community of STEM mentors from Colby-Sawyer College, Dartmouth University, and regional science and engineering corporations to help students design and perform original research.

The NIH funding will bolster the NH Academy's large supply of research instruments that can be borrowed to execute their research. Corporations including Hypertherm Inc., Celdera Medical Inc., and Simbex Inc. are providing mentors and technical support. The NHAS is also collaborating with the Fairbanks Museum in St. Johnsbury, VT and the Montshire Museum in Norwich, VT.

NHAS projects already in progress:

- Loaning equipment to our region's high schools and middle schools
- Offering students research experiences that allows them to receive high school credits
- Providing instrument training for teachers
- Assisting schools in incorporating inspirational STEM research in their curricula
- Establishing satellite labs at NH and VT schools and the Fairbanks Museum

For students, parents, teachers, school administrators, and corporations, to find out how to become involved you can call us at 603-764-5284 or email us at nhacadsci@gmail.com