

# Connecting Classrooms and Community with the Health Sciences

A NCRR/SEPA Project

Montshire Museum of Science • Norwich, Vermont

## Project Overview

Montshire Museum will develop an educational outreach program to serve students in grades 5-8 in rural Vermont and New Hampshire schools. The project team will create four health education modules, each one related to current NIH-supported research by faculty at Dartmouth Medical School (DMS). DMS researchers will collaborate with Montshire Museum's science educators in developing the modules and will be actively involved as scientific advisors to the project. Montshire Museum's science educators will support all aspects of this program through school visits and professional development institutes for teachers, providing students and teachers with the materials and understanding needed to engage in the health sciences through active scientific inquiry.

The materials developed for school-based programming and teacher institutes will also create opportunities for broader public outreach. Montshire's educators will adapt them for special family activities and presentations within the museum setting. In addition, a series of lectures aimed at the adult community audience presented by the collaborating DMS researchers will highlight the areas of health science research occurring at Dartmouth Medical School investigating adolescent health issues.

## Project Objectives

The outreach program will provide information and experiences to help young teens make good decisions about their health. The primary objectives of the project are to:

- Provide participants with information that will assist in making personal health decisions in the subject areas;
- Raise participants' awareness of the ways that culture and media affect their choices;
- Expose participants to the interesting and relevant research taking place locally, increasing their understanding of the diversity of health science careers and research processes.
- Provide middle school students with opportunities to participate in their own health science related research projects through inquiry-based science investigations.
- Provide teachers of under resourced rural schools the instructional materials and support needed to meet the science and health education standards of Vermont and New Hampshire.



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## Project Partners: researchers

A major emphasis of this project is to link middle school students with researchers in the health sciences. Students will gain insight into the scientists' research through video, interviews, and classroom visits by research associates. Students will then design their own community, family and adolescent health investigations modeled after this research. Montshire Museum is located in Norwich, VT, directly across the Connecticut River from Dartmouth College and Dartmouth Medical School in Hanover, NH. The project takes advantage of the Museum's close proximity to and working relationships with our colleagues at Dartmouth. Project researchers include:

- Drs. Madeline Dalton and Meghan Longacre, Hood Center for Children and Families, Dartmouth Medical School. The project will create student investigation around their research on how environmental influences, including the built environment, impact children's eating behaviors and activity levels.
- Dr. Ardis Olson, Community and Family Medicine, Dartmouth Medical School. Dr. Olson's research group will support the project's efforts to develop adolescent awareness of skin cancer through science curriculum and the 'sun safe' program.
- Drs. James Sargent and Keilah Worth. Dr. Sargent's research has focused on youth risk behavior associated with media. He and Dr. Worth will support the project in developing a module where middle school students can view video clips from movies and television to create awareness on media's portrayal of risk behavior and how it may impact their own decision making processes.
- Drs. Ann-Christine Duhaime and Beth Costine, Department of Pediatric Neurosurgery, Dartmouth Medical School and Thayer School of Engineering. The project will involve the expertise of these two researchers to create a health unit on head impact injury and brain science.

## Project Details

**Funder:** Science Education Partnership Award through National Center for Research Resources, National Institutes of Health.

**Award Amount:** \$780,000

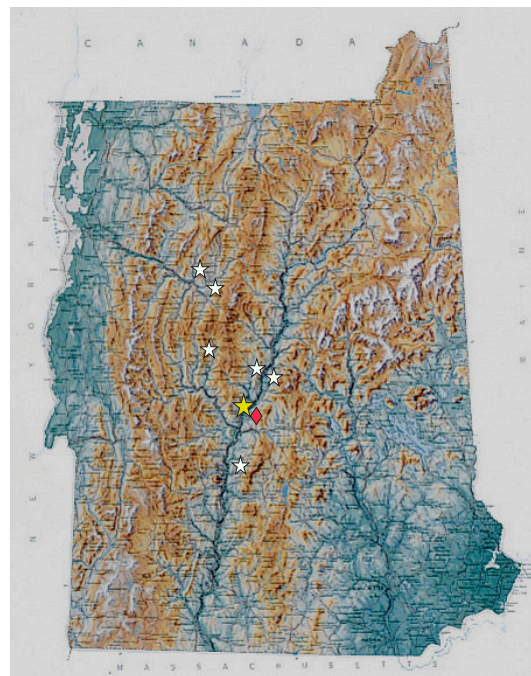
**Funding Period:** Five year award, September 30, 2009 - September 29, 2014.

**Principal Investigator:** Greg DeFrancis, Director of Education.

**Curriculum Developer:** Michael Fenzel

**Evaluation:** Becky Carroll and Michelle Phillips, Inverness Research Associates.

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★ Montshire Museum of Science

◆ Dartmouth Medical School

☆ Project School Sites

## Project Partners: schools

Schools involved in piloting the curriculum resources developed for this project include:

- Rivendell Academy Middle School, Orford, NH.
- Samuel Morey Elementary School, Fairlee, VT
- Westshire Elementary School, West Fairlee, VT
- Cornish Elementary School, Cornish, NH
- St. Monica's School, Barre, VT
- St. Michael's School, Montpelier, VT
- Tunbridge Central School, Tunbridge, VT