FROM THE DIRECTOR



Engaging Students and Informing the Public

o stimulate the public's curiosity about medical research and advances in medicine, NCRR has been funding innovative outreach projects through Science Education Partnership Awards (SEPA) for the past 15 years. By creating relationships among educators, museum curators, and medical researchers, SEPA encourages the development of hands-on, inquiry-based curricula that inform the participants about such timely issues as obesity, stem cells, and infectious diseases. In addition, SEPA provides professional development for teachers and mentoring opportunities for students K-12, which have proven to be integral to its success. Many SEPA projects are designed to engage underserved and/or minority populations to ensure that they have full opportunities to pursue careers in the health sciences.

For example, in this fiscal year, NCRR has provided almost \$10 million to fund nine new SEPA projects in states ranging from California to New Jersey and Massachusetts to Mississippi. The grants will provide from two to five years of support and include such projects as partnerships between the University of Nebraska Medical Center and tribal schools in Nebraska and South Dakota to increase the number of Native Americans entering health careers. At the Yale University SEPA, K-12 students will learn about infectious diseases and their transmission by studying models of Lyme disease and West Nile virus. At the Children's Museum in Houston, participants will learn how to track their physical activity and nutrition and the role that both play in human health. The SEPA mentoring program developed at West Virginia University has been credited with increasing the percent of students who attend college and with ensuring their retention in college. Furthermore, nearly half of the SEPA students who have participated in the West Virginia program are earning health, science, or technology degrees.

To leverage the tremendous power of such projects, SEPA also provides support so that successful efforts can be widely disseminated. Curricula and other teaching aids are freely available through the Web at www.ncrrsepa.org.

Educating the public about what we do is a great challenge, but it's a vital task I hope you'll join us in undertaking. The future of biomedical research and the nation's health are at stake.

Barbara Clving**, M.D.

Barbara Alving, M.D.

Acting Director, NCRR

INSIDE

SPRING 2006, VOL XXX, NO. 2

CRITICAL RESOURCES

Learning To Love Science

Innovative science education projects are changing the way we learn science.

Resource Briefs

Cracking the Genetics of Disease

9 A Measure of Age

Funding Matters

10 High-End Technologies for High-Powered Research

Grants for high-end instruments give a boost to imaging studies, and more.

SCIENCE ADVANCES

12 Unlocking the Mysteries of Stem Cells

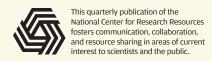
Scientists explore the therapeutic mechanisms of adult stem cells.

Research Briefs

14 Shining a Light on Diabetes

15 News from NCRR

Reporter



EDITOR
Joyce McDonald, NCRR
MANAGING EDITOR
Victoria L. Contie
SCIENCE WRITER
Al Staropoli

Publications Supervisor Shirley Coney-Johnson

Publication Design David Herbick Design

Please send comments and ideas about future articles to:

Office of Science Policy and Public Liaison, NCRR/NIH One Democracy Plaza 6701 Democracy Blvd., 9th floor Bethesda, MD 20892-4874 Telephone: (301) 435-0888 Fax: (301) 480-3558 E-mail: info@ncrr.nih.gov Web site: www.ncrr.nih.gov On the Cover: In the rural Hawaiian town of Hana, children and families engage in hands-on activities at a Family Science Night, designed to pique curiosity about health and research careers. This event is one of many innovative outreach efforts sponsored nationwide by NCRR's Science Education Partnership Awards.

PHOTO BY MARILYN LINK, UNIVERSITY OF HAWAII, JOHN A. BURNS SCHOOL OF MEDICINE