



Tunnel and rack washers are periodically manually de-scaled with phosphoric acid, as shown here. Phosphate-free cleaners are more friendly to Chesapeake Bay.

The Bay Needs Your Help Change of Soaps Could Benefit Environment

NIH could reduce phosphate emissions by roughly 10-12 tons per year simply by changing the soap used in many laboratories. Use of phosphate-free soap at the lab sink or cage washer can help protect the Chesapeake Bay watershed.

When purchasing high-use chemicals, especially cleaning products, preference should be given to obtaining phosphate-free, low phosphorus and low nitrogen alternatives, says the NIH Environmental Management System (NEMS). Phosphate-free formulations such as citric acid-based cage descalers are readily available and already in use at some NIH facilities.

With 17 million people living in the bay watershed, the cumulative impact of human activity on the estuary is significant and growing. Some common activities like applying fertilizers and using household cleaners, soaps and detergents contribute more phosphorus and nitrogen than the bay's waters can handle, according to NEMS. Emissions from cars and from electricity-generating power plants are major contributors of nitrogen. Reducing miles driven, electricity use and the use of phosphorus and nitrogen-containing soaps and detergents are excellent steps any individual can take to minimize their impact.

Several NEMS "green teams" and working groups have identified goals to reduce the NIH impact of nutrients and other chemicals on the Chesapeake Bay. These groups also encourage and set goals for energy reduction, greener procurement and reduction of certain chemical usage at NIH facilities.

The federal government is one of the signa-

ories of Chesapeake 2000, which affirms the need to work with state and local governments as stewards to ensure the public's right to clean water and a healthy and productive resource.

The nutrient load we all contribute to the bay with our day-to-day activities is slowly overwhelming it; a hypoxic zone is growing in the bay that will reach a record-setting size in 2008—3 cubic miles, according to studies conducted by the University of Michigan. This hypoxic zone is a "dead zone" that lacks oxygen levels capable of supporting fish and other aquatic life. The size and scope of this zone has been predicted by UM's Sea Grant Program: http://sitemaker.umich.edu/scavia/files/2008_chesapeake_bay_hypoxic_forecast.pdf

To learn more about what you can do to "Green the NIH" and help protect the environment, visit www.nems.nih.gov. 

NINR Completes Ninth Summer Genetics Institute

By Ray Bingham

"You have come here from across the country, and from many of the nation's best nursing research schools," said NINR director Dr. Patricia Grady at a recent ceremony celebrating the conclusion of the institute's ninth Summer Genetics Institute (SGI). "All of you have worked very hard to develop your knowledge



Two students from NINR's 2008 Summer Genetics Institute complete work in the laboratory.

and hone new skills in genetics and health care research." This year, 20 students completed the program, bringing the total number of SGI graduates to 159. SGI provides a 2-month, full-time research training program on the NIH campus for nursing faculty, graduate students and advanced practice nurses. Its purpose is to develop genetics research capacity and expand the basis for clinical education and practice in genetics within the nursing profession. SGI students spend approximately 100 hours in the laboratory, learning basic techniques used in molecular biology to promote their understanding of the technology of genetic testing. They also discuss clinical case studies and attend lectures and seminars focused on a wide range of ethical, social, legal and public policy issues. Through this training, NINR is preparing nurses to address important scientific questions about the influences of genetics on health, such as those arising from the Human Genome Project and the ongoing International HapMap Project.

The SGI experience frequently serves as a springboard to additional research training and education in genetics. To date, SGI graduates have published more than 150 peer-reviewed articles, while approximately one-third have gone on to receive federal funding for their research projects.

In future years, genetics will become increasingly important in health care education. Faculty members who complete SGI are well prepared to integrate genetics topics into nursing curricula, thereby spreading the knowledge they have gained through this intensive program and enhancing the ability of their students to apply the principles of genetics in their own practice and research.

"We eagerly anticipate seeing the outcomes and products of your work over the next several years, including publications and presentations, grants and new academic courses," Grady told the students. "Each of you will assist in the effort to translate our increasing knowledge of genetics into improved health care for all patients." 