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## Senator Clinton Tours Laboratory

- Director John Marburger was pleased to welcome Senator Hillary Rodham Clinton to Brookhaven National Laboratory for a visit.
- The Senator toured the Relativistic Heavy Ion Collider, the STAR detector, and the National Synchrotron Light Source, all premier research facilities where breakthrough scientific research is being conducted.
- Senator Clinton spoke to Dr. Lisa Miller, NSLS scientist, about her research in AIDS, osteoporosis, Alzheimer's, and arthritis. The Senator also had an opportunity to hear from other BNL researchers about the extensive brain imaging research being done at the Lab. (See following article for one example.)



Lisa Miller, Senator Clinton, and Dr. Marburger at the NSLS

## Less Alcohol with More Dopamine Receptors

- Certain test rats are less interested in drinking alcohol, compared to untreated rats, if they are treated to overproduce a chemical called "dopamine receptor." The discovery, made by biologists at Brookhaven National Laboratory, may help prevent and eventually treat alcoholism in humans.
- "This is the first evidence that overproduction of [dopamine] receptors reduces alcohol intake," said Panayotis Thanos, the lead researcher, "and suggests that high levels of [the receptors] may be protective against alcohol abuse in humans."
- Previous research has shown that the dopamine receptors produce feelings of pleasure. However, alcohol abuse reduces the production of these chemicals, and the pleasure is reduced. So alcoholics tend to increase their intake to try to override the blunted pleasure response.
- The BNL scientists have shown that if "alcoholic" rats are given the missing chemicals, they receive the pleasure signals they are craving for, and they do not want to abuse alcohol anymore. Though this research is a first step, it might lead to a future treatment for alcoholism.

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## Brookhaven Lab Ranked First in U. S. for Environmental Science

- In a recent study conducted by *The Guardian*, a British newspaper, Brookhaven National Laboratory ranked fourth worldwide and first in the United States in terms of the impact of its environmental research.
- The study covered a number of institutions in each of the four countries with the largest number of scientific publications in the environmental sciences: Canada, Germany, the United Kingdom, and the United States. The institutions were classified according to their “impact,” or the number of times their publications were cited by other publications from 1994 to 1998.
- The other top institutions, ranked in descending order, from first to third, are Brunel University, near London, the Max Planck Institute for Meteorology in Hamburg, Germany, and the Max Planck Institute for Chemistry in Mainz, Germany.
- Scientists in Brookhaven’s Environmental Sciences Department study atmospheric pollutants, the effects of aerosols on world climate, the effects of increasing carbon dioxide in the atmosphere, as well as waste disposal.

## Students Study Peconic River’s Vegetation and Geology

- Last summer, eleven high school and college students collected data on the vegetation and geology of the Peconic River, which could help Brookhaven Lab design efficient cleanup plans for portions of the river.
- The students found very few non-native plant species along the Peconic, a healthy sign for the environment since non-native plants can be invasive, crowding out native plants that are best for maintaining ecological balance.
- The nine Suffolk County high school students and two undergraduate students from the University of Massachusetts and the University of Puerto Rico participated in the Suffolk County Community College (SCCC) and Brookhaven National Laboratory (BNL) Summer Field Program.
- The program was sponsored by the Center for Community Research at SCCC and BNL’s Office of Educational Programs. Additional support for the program came from Battelle, Brookhaven Science Associates, and the U.S. Fish & Wildlife Service.



Summer Field Program students surround some of the officials responsible for its success.

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