

The following news briefs are sent to you by the National Synchrotron Light Source at Brookhaven National Laboratory, Upton, New York [www.nsls.bnl.gov](http://www.nsls.bnl.gov)

### **Science Highlight: MacKinnon Lab's Newest Picture Tells Action Potential Story**

Contact: Karen McNulty-Walsh ([kmcnulty@bnl.gov](mailto:kmcnulty@bnl.gov))

Scientists studying the tiny devices - called voltage-dependent ion channels - that are responsible for all nerve and muscle signals in living organisms for 50 years have been working like a bunch of blindfolded art critics. Rockefeller University's Roderick MacKinnon, M.D., a Howard Hughes Medical Institute Investigator, Youxing Jiang, Ph.D., and their colleagues have removed the blindfold to reveal a masterpiece of nature's engineering. The masterpiece is a voltage-dependent potassium ion channel, the first published picture of which illustrates the cover of Nature's May 1 edition, revealed by MacKinnon and his rainmaking group of biophysicist-crystallographers. Inside, Nature features two articles, co-authored by Vanessa Ruta, Alice Lee, Jiayun Chen, Brian Chait, D. Phil., and Martine Cadene, Ph.D. that correct the proposals of scientists who lacked the definitive picture showing a potassium channel with charge-triggered "paddles" responsible for opening and closing a passage for potassium ions to freely move through. For more details on this work, see:

<http://www.bnl.gov/bnlweb/pubaf/pr/2003/bnlpr043003.htm>

### **NSLS Chairman, Steve Dierker, Appointed Associate Lab Director for the Light Sources Directorate**

On June 5, 2003, BNL Laboratory Director, Praveen Chaudhari, announced the appointment of NSLS Chairman, Steven Dierker, as the Associate Laboratory Director for the Light Sources Directorate. Steve will retain his present role as Chairman of the current NSLS. During the last two years, Steve has led the NSLS through a restructuring and subsequent growth phase, while at the same time helping to develop and lead the efforts to propose a new light source, NSLS-II. The NSLS-II Project represents the next major step in BNL's long history of building and operating world-class scientific facilities. Its outstanding capabilities are expected to have enormous impact in the life sciences, materials and chemical sciences, nanoscience, geoscience, environmental science, and other areas. "The success of the NSLS-II Project is vital to the continuing prosperity of synchrotron science at the Lab and in the Northeast," Chaudhari said. "I am, therefore, pleased to announce the creation of a new science directorate at the laboratory, the Light Sources Directorate, devoted to operation of the current NSLS and the development and construction of NSLS-II."

<http://www.nsls.bnl.gov/newsroom/news/2003/06-dierker-ALD.htm>

### **2003 Annual NSLS Users' Meeting Highlights Scientific Successes, Exciting Future Plans**

Contact: Tony Lanzirotti ([lanzirotti@bnl.gov](mailto:lanzirotti@bnl.gov))

A spirit of optimism pervaded the 2003 annual meeting of NSLS users, held at BNL May 19-21, 2003, with presentations on scientific successes and plans for new facilities. Coming from all over the world, the participants attended a one-day plenary session and six one-day-long workshops on the latest scientific results achieved at the NSLS in the physical, biomedical, environmental and instrumentation sciences. For the full story, see:

<http://www.nsls.bnl.gov/newsroom/news/2003/06-UsersMtg.htm>

### **UEC Community Service Award Presented to Michael Sullivan**

Contact: Leemor Joshua-Tor ([leemor@cshl.org](mailto:leemor@cshl.org))

Congratulations go out to Michael Sullivan, Chief Beamline Engineer for Albert Einstein College of Medicine. Mike is the second recipient of the NSLS Users' Executive Committee (UEC) Community Service Award. This award is given for service, innovation and dedication to users of the NSLS. For the full story, see:

<http://www.nsls.bnl.gov/newsroom/news/2003/05-uecaward.htm>

### **New UEC and SpIG Representatives Elected**

Contact: Tony Lanzirotti ([lanzirotti@bnl.gov](mailto:lanzirotti@bnl.gov))

Congratulations go out to the newly elected members of the Users' Executive Committee (UEC) and the Special Interest Group (SpIG) representatives. The current NSLS UEC consists of Tony Lanzirotti (Chair, Univ. of Chicago), Fred Dyda (NIH), Anatoly Frenkel (Yeshiva Univ.), Rich Reeder (SUNY Stony Brook), Larry Shapiro (Columbia Univ.), Dan Fischer (NIST), and Dean Hesterberg (NC State Univ.).

SpIG representatives include: Vivian Stojanoff (BNL-NSLS; Biological Scattering and Diffraction SpIG), Jerry Delaney (Rutgers Univ.; Imaging SpIG), Larry Carr (BNL-NSLS; Infrared Users SpIG), Mahbub Khandaker (TJNL; Nuclear Physics SpIG), Aaron Celestian (SBU; Students and Postdocs SpIG), Kumi Pandya (NC State Univ.; XAFS SpIG), Peter Stephens (SBU; X-Ray Scattering/Crystallography SpIG), John Sutherland (BNL-Biology; Time-Resolved Spectroscopy SpIG), Michael Dudley (SBU; Topography SpIG), Dan Fischer (NIST; UV Photoemission SpIG).

For complete details on UEC activities, see the UEC website at: <http://www.nslsuec.org>

## **NSLS Youngest Scientists Learn from Light on "Take Our Daughters and Sons to Work" Day**

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On April 24, about 30 daughters and sons learned about some of the scientific programs at the NSLS, and even performed their own scientific experiments. The one-day visit was part of the national "Take our Daughters and Sons to Work Day." For more details and photos of the event, see:

[www.nsls.bnl.gov/newsroom/news/2003/06-sonsdaughters.htm](http://www.nsls.bnl.gov/newsroom/news/2003/06-sonsdaughters.htm)

## **Hands-On Short Course in EXAFS Data Collection and Analysis: July 14-17, 2003**

Contact: Bruce Ravel ([ravel@phys.washington.edu](mailto:ravel@phys.washington.edu))  
or Simon Bare ([simon.bare@uop.com](mailto:simon.bare@uop.com))

A hands-on short course in EXAFS data collection and analysis will be held at the NSLS from July 14-17. This workshop will provide a broad introduction to the collection and analysis of EXAFS data and is aimed at new synchrotron users and young scientists. The three-day course includes classroom lectures given by leading experts, hands-on data collection at NSLS beamlines, and instruction in the use of data analysis software. The lectures will cover topics ranging from the basic physics of x-ray absorption, sample preparation and data collection, and basic principles of data analysis. Participants will collect real data during the beamline practicals and learn to analyze that data during the computer training. For more information, see:

<http://www.nsls.bnl.gov/newsroom/news/2003/08-exafs.htm>

## **Equipment Tags Required for All Equipment at NSLS**

Contact: Wendy Spaeth ([spaeth@bnl.gov](mailto:spaeth@bnl.gov))

DOE will be sending representatives from Headquarters in Washington DC, DOE Chicago Operations and an Independent Auditor to BNL and to the NSLS during the week of July 7 through 11, 2003 to conduct a Controlled Property Audit. One of the things they will be checking, is that ALL equipment onsite must be tagged. This includes both BNL equipment and user equipment. Blank equipment tags are available for users, free of charge, in the NSLS stockroom. Users can fill in the name of their organization in the space provided and apply one tag to each piece of equipment that does not already have an identification tag. The serial numbers on tags provided by the NSLS are for their optional use in record keeping. For additional information, or if anyone finds any untagged equipment that does not belong to them, please contact Wendy Spaeth at [spaeth@bnl.gov](mailto:spaeth@bnl.gov).

## **Internet Connections Now Available in All BNL Dorms and Apartments**

Contact: Cathy Glaser ([glaser@bnl.gov](mailto:glaser@bnl.gov))

The Housing and Support Services at BNL would like all users to know that each dorm on-site is equipped with ethernet-based internet service and all apartments are equipped with DSL Internet access. Information on these services can be found on the Staff Services website at:

<http://fsd84.bis.bnl.gov/staffServices/menu/Housing/default.htm>

## **The April NSLS Newsletter is now online**

The April 2003 issue of the NSLS Newsletter is now available online and in print. To receive a printed copy, please email Nancye Wright at [wright1@bnl.gov](mailto:wright1@bnl.gov). To view and download the online version, go to:

<http://www.nsls.bnl.gov/newsroom/publications/newsletters/2003/03-mar.pdf>

## **Request a 2002 NSLS Activity Report**

The 2002 NSLS Activity Report is now available in print and on the web.

To view the online version or request a printed/CD copy, go to:  
<http://www.nsls.bnl.gov/newsroom/publications/activityreport/>

## **Job Opportunities at the NSLS**

A number of scientific and technical job opportunities are available now at the NSLS. See the NSLS web site for details:

<http://www.nsls.bnl.gov/organization/Admin/jobs.htm>

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<http://www.nsls.bnl.gov/newsroom/publications/enews/>

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This work was supported by the U.S. Department of Energy, Division of Materials Sciences and Division of Chemical Sciences, under Contract No. DE-AC02-98CH10886

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