

Anderson, Mangel Patent Will Advance Anti-Viral Research

Wally Mangel (left) and Carl Anderson, both of the Biology Department, are looking at a model of the type of organic compound (BZIPAR) they used to detect the activity of the adenovirus proteinase.



Adenoviruses are the cause of several illnesses in humans, including conjunctivitis, diarrhea, and some common colds (see Brookhaven Bulletin, November 19, 1999). While infections usually are self-limiting, they can be life-threatening in very young or immuno-compromised individuals.

Developing ways to interfere with these infections became easier because of work patented last August 10* by Carl Anderson and Wally Mangel of Brookhaven's Biology Department.

Researchers have known that adenoviruses have a potential Achilles' heel — an enzyme they produce called adenovirus proteinase, which is required to make new infectious virus particles.

But the enzyme exists in low concentration in virus particles, so getting enough to study for drug development or other potential uses has been impractical.

Now, however, Anderson and Mangel have developed a way to make abundant quantities of recombinant

adenovirus proteinase, as well as methods for introducing the enzyme into cells and for making antibodies that react with it.

With this work, the possibility of developing safe and effective antiviral drugs for human use has moved one step forward.

Recently, viral proteinases have been targeted by the pharmaceutical industry in new anti-viral drug therapies. The Anderson-Mangel patents may enable similar targeting against adenoviral infection.

The adenovirus proteinase enzyme, whose structure was determined at atomic resolution in 1996 by Mangel and Biology colleagues Bob Sweet and Bill McGrath, using facilities at the National Synchrotron Light Source, may also have applications in bioprocessing.

— Liz Seubert with Karen McNulty

**Note: this patent, U.S. Patent No. 5,935,840, is the second in Anderson and Mangel's adenovirus proteinase patent series. The first, U.S. Patent 5,543,264, was issued in 1996.*

Healey Heads New Procurement & Property Management Division

As announced by Brian Sack, Assistant Laboratory Director for Finance & Administration, the Administrative Support Division has been dissolved. The Supply & Materiel Division (SMD), which includes Property, Traffic, Inventory, and Stockrooms, has merged with the Division of Contracts & Procurement (DCP) to form the Procurement & Property Management Division, headed by Mary-Faith Healey. Mike Guacci, who headed SMD for the past 15 years, is retiring after more than 39 years at BNL.

Tony Salvo, the DCP Deputy Manager, will be the Deputy for Science & Technology Support which encompasses scientific and office support contracts, the Small/Small Disadvantaged Business Program and administrative/customer-support activities. David Dale will be the Deputy for Site & Operations Support Activities, which encompasses operations support contracts, property, inventory and commercial procurements, and traffic.

Also, Staff Services, headed by Ron Manning, who is responsible for Trans (continued on page 2)

Gathered outside Building T89 are members of the new Procurement & Property Management Division, headed by Mary-Faith Healey, (center back, sixteenth from right). Mike Guacci is at the left end corner of the stair rail, Tony Salvo, middle-back left, on the first step.



photos by Roger Stoutenburg

350th Brookhaven Lecture: Lab Historian Robert Crease Reviews ISABELLE Story

When was the last time that the troubles and controversy surrounding a key BNL facility led to a major setback for U.S. science? The answer is in the early 1980s, and



Robert Crease

the facility was ISABELLE, precursor to the Relativistic Heavy Ion Collider.

ISABELLE was a 400 x 400 GeV (billion electron volts) colliding beam accelerator envisioned in 1971, approved in 1977, and terminated in 1983. The story eventually had a happy ending, for the Lab used the completed tunnel and many of ISABELLE's ideas as a basis for proposing and landing the RHIC project.

But along the way, ISABELLE's changing fortunes brought BNL some difficult years.

In the 350th Brookhaven Lecture, the last of the millennium and the year of RHIC's commissioning, Lab Historian Robert Crease will relate ISABELLE's ups and downs in: "Quenched! The ISABELLE Story."

The lecture will be given on Wednesday, December 15, at 4 p.m. in Berkner Hall, when Crease will be introduced by Lab Director John Marburger.

Crease, author of *Making Physics: a Biography of Brookhaven National Laboratory 1946-1972*, is a professor of philosophy at the State University of New York at Stony Brook (USB). Other books include *Peace and War: Reflections on a Life at the Frontiers of Science*, with the late theoretical physicist Robert Serber; *The Play of Nature: Experimentation as Performance*; and *The Second Creation: Makers of the Revolution in Twentieth-Century Physics*, with Charles C. Mann. Crease is also involved with Project WISE (Women in Science & Engineering), a joint BNL and USB enterprise.

Coffee and cookies will be served in the lobby before the lecture and refreshments offered afterwards. Those who wish to join the lecturer for dinner at a restaurant off site that evening should call Liz Seubert, Ext. 2346, by noon on Wednesday, December 15, for information or to make a reservation.

— Liz Seubert

DOE Honors BNL's Educational Achievers From Diverse Groups

Four BNL employees and two summer students recently received federal awards for outstanding achievements in DOE-sponsored education programs organized at the Lab by the Office of Educational Programs (OEP).

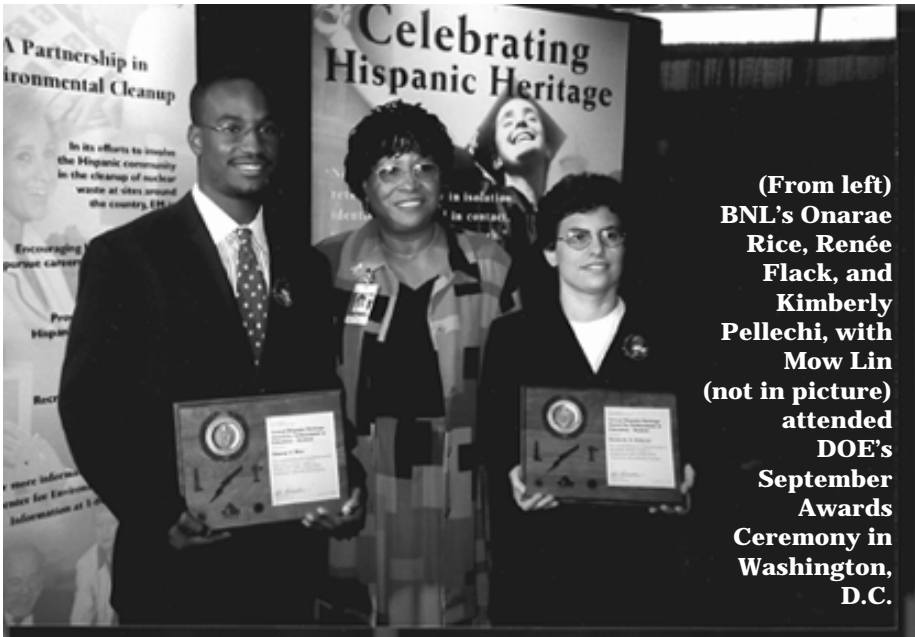
At the first-ever Federal Hispanic Heritage Month Excellence Awards, Secretary of Energy Bill Richardson presented awards to: Kimberly Pellechi, a Biology Department associate; Onarae Rice, an associate scientist in the Medical Department; and Peter Soo, a metallurgist in the Department of Advanced Technology (DAT). The awards were instituted to recognize contributions to U.S. history and culture made by Hispanic Americans and other underrepresented groups.

The presentations took place in September in Washington, D.C.

That same day, another ceremony was held, sponsored by DOE's Director of Office of Science, Martha Krebs. On this occasion, Mow Lin, a chemist

"... break free by pursuing an excellent education. The opportunities afforded me at BNL have helped me further my goals."

in the Department of Applied Science (DAS), and two summer intern students, Abdelrahim Mansour and Natalia Saldarriaga, were honored for their achievements in the DOE Community College Institute for Biotechnology, Environmental Sciences & Computing program, known as CCI. OEP's Educational Programs Administrator Renée Flack accompanied the honorees to Washington. Said Flack,



(From left) BNL's Onarae Rice, Renée Flack, and Kimberly Pellechi, with Mow Lin (not in picture) attended DOE's September Awards Ceremony in Washington, D.C.

"Determination, dedication, commitment — these are terms that describe our honorees and their achievements. BNLees should be extremely proud."

Peter Soo, DAT

Award winner Peter Soo was recognized for his outstanding work as a mentor to many students over the years in the Science & Engineering Research Program (SERS) and Energy Research Undergraduate Laboratory Fellowship (ERULF) programs. This past summer, he mentored Jason Sese, a Hispanic student from the University of Maryland, training him to use advanced analytic equipment to monitor the aging of electric cables used in nuclear power plants.

Says Soo, "I find mentoring young people very fulfilling. When the kids first come here, they don't know too much. By the time they leave, they have confidence and some technical

knowledge that they can use. The experience also opens their eyes to other fields that they might not have thought to pursue."

Onarae Rice, Medical

Onarae Rice first came to BNL in 1995 as a SERS student intern. He worked with Seiichi Yasumura in the Medical Department, joining Medical as an associate scientist in 1996. In one project, in conjunction with doctors from St. Luke's/Roosevelt Hospital in Manhattan, Rice and colleagues monitor the elemental body composition of patients who are HIV-positive.

"For instance," explains Rice, "when we monitor the nitrogen and potassium content in a patient's body, doctors can use the information and modify the patient's diet to offset the wasting away that can accompany AIDS."

Rice, who is African-American, is

pursuing a Ph.D. in biopsychology at the State University of New York at Stony Brook.

"As a child, I was challenged by economic circumstances," he says. "I'm attempting to break free by pursuing an excellent education. The opportunities afforded me at BNL have helped me further my goals. No matter what challenges a person may face, underrepresented or not, he or she must seek out opportunities and seize them. Besides, challenge breeds character," he adds.

Kimberly Pellechi, Medical

Kimberly Pellechi came to Medical through OEP as an ERULF research intern. Pellechi has virtually complete hearing loss, yet she was able to exceed the expectations of her research assignment, which dealt with gene sequencing. With encouragement from Brenda Laster, then in Medical, Pellechi pursued a career in the life sciences. Supported by BNL's Diversity Office and Biology, she has been working in Biology for John Dunn.

In recalling some of her earlier experiences, Pellechi noted, "When I graduated from college, I faced job discrimination because I am deaf. When I got a job offer from BNL, it changed my life. I have worked very hard to prove to the hearing community that deaf people can do anything.

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Next year, Pellechi plans to pursue a Master's degree in computer science at Hofstra University.

Mow Lin, DAS

DAS Chemist Mow Lin was honored by DOE for his exceptional contribution in mentoring three students this summer. Lin's work on environmentally friendly technologies has included developing strains of bacteria that can clean toxic waste from geothermal sludge and brine, and other biocatalysts that help extract and purify heavy crude oil.

Says Lin, "I enjoy teaching students at all levels and feel rewarded when I hear that later that they completed a Ph.D. in science or medicine or won an award. I often have several summer students at one time, so I teach them some things together, such as how to do a literature search. Then I help them set up their own experiments, so that they have a real project completed at the end of their six or seven weeks here."

Students Mansour, Saldarriaga

Abdelrahim Mansour and Natalia Saldarriaga, the two summer intern students, participated in CCI. BNL is the lead laboratory in this multi-lab pilot program designed for outstanding students from regional community colleges. Mansour, who was mentored by Mark Miller, Medical Department, and Saldarriaga, mentored by Lin, were each recognized for their contributions to their programs.

Each year OEP, in collaboration with other BNL organizations, administers science education programs for students and teachers sponsored by DOE, New York State, and various educational institutions.

For more information, see <http://www.scied.bnl.gov>. — Ann Ferrar Dusak with Liz Seubert

P&PM Division

(cont'd)

portation and Fleet Management, Food Services, Conference Support, the Travel Office, and Housing, now reports directly to Sack.

On announcing the changes in June, Assistant Director Sack had also expressed his appreciation of Lance Warren of the Plant Engineering Division "whose leadership and efforts as the interim Head of ASD from summer 1998 through mid-June were invaluable."

Said Healey, "We have developed a comprehensive merger plan which will result in better customer service, improved operational efficiency, significant cost savings, and resource reallocation. This is a win/win strategy for our staff and the Laboratory."

Healey explained that the merger plan includes reduction in the current BNL stockroom inventory by approximately 65 percent to match current needs, procurement of commercial supplies and services through indefinite delivery or indefinite quantity contracts, and introduction of Web-based catalogs.

"We will also reestablish central receiving with twice-daily distribution around the Lab, and continue to improve the property management program through streamlining and technology updates," said Healey. "The changes, which will take one to two years to complete, are expected to save from \$825,000 to \$1,000,000 annually."

— Liz Seubert

Arrivals & Departures

Arrivals

Peter A. Steinberg Chemistry
Zongren Zhang Chemistry

Departures

None



Roger Stoutenburgh

The United Way Still Needs You

Just over two weeks into this year's United Way campaign, BNL employees are showing that the spirit of giving is alive and well.

The campaign has raised \$88,882 so far with only 15 percent of employees (460 people) contributing. Dozens of others have signed up as volunteers to help distribute donated toys, package food for the needy and paint, landscape, and otherwise fix up facilities that serve countless Long Islanders.

"Just imagine what we'd accomplish with 100 percent participation!" says Patti Bender, this year's Fund Drive Chair. "There is still time to turn in your pledge forms and/or sign up as a volunteer."

Another way to give: Donate new, unused gifts or other items, for example, tools or clothing, for distribu-

tion to United Way agencies or for our own holiday raffle/Chinese auction.

The raffle/auction will be held on December 15 and 16 at lunchtime in the lobby of the cafeteria.

Prizes like floral arrangements, gift certificates, wine baskets and small appliances will be on display both days while the raffle tickets used to bid for these prizes are sold.

The final drawing will be held on December 16 at 5:15 p.m. Bidders need not be present to win. All monies collected will benefit the United Way of Long Island.

For more information see <http://www.bnl.gov/bnlweb/unitedway.html>, or contact Patti Bender, Ext. 3145, bender@bnl.gov, or Beth Blevins, Ext. 5530, blevins1@bnl.gov.

— Karen McNulty

The Bulletin Surveys Your Favorite Things

As always, all the news that's fit to print does not fit into the mighty but small Brookhaven Bulletin. We have to choose.

What's changed is that new technology — e-mail and the Web — can spread news Lab-wide in a few hours and also provide infinite space for long announcements. Yet about 1,000 Lab employees have no access to electronic news. Also, many people still prefer a well-printed paper to take home and share with family and friends.

But, are readers happy with the Bulletin? What parts are your favorites? Could we omit anything?

In 1995, the Bulletin held a similar survey, finding that readers could live without daily cafeteria menus. They also voted for fewer sports scores and workshop reports, and shorter lecture and science stories.

Whatever gets changed, science stories are in, and we are trying to make them easier to read. The ads are in too — how else could employees buy cars, parrots, or an exercise bike (still in box)?

To help us further tailor the Bulletin to its readership, please take the time to fill out this survey and return it by January 10 — retirees too. Sign or not as you choose. No-show replies will be taken as a vote of confidence in whatever the Bulletin may decide, but we would prefer constructive suggestions. — Liz Seubert, Editor

What do you read? Mark 1 for always, 2 for often, 3 for occasionally and 4 for never.

- ___ science news
- ___ administrative announcements
- ___ issues in the media (such as community concerns)
- ___ employee features
- ___ BERA club notices
- ___ sports scores
- ___ upcoming events
- ___ obituaries
- ___ job postings
- ___ classified ads

How do you prefer to get your Lab news? Rank the top three ways with first preferred as 1, then 2, 3.

- ___ Brookhaven Bulletin
- ___ Monday Memo
- ___ broadcast e-mail
- ___ Brookhaven's Web site
- ___ bulletin boards (such as the board in Berkner)
- ___ video (such as the kiosk in Berkner)

If you had to eliminate something in the Bulletin, what would it be?

Rank three only, with first item to omit as 1, then 2, 3.

- ___ administrative announcements
- ___ issues in media (such as community concerns)
- ___ employee features
- ___ BERA club notices
- ___ sports scores
- ___ upcoming events
- ___ obituaries
- ___ job postings
- ___ classified ads

What do you want to know more about? Check one only.

- ___ research news
- ___ budget and administration
- ___ issues affecting the Lab
- ___ employee features
- ___ other (specify) _____

Would you prefer the Bulletin:

- ___ once a week
- ___ once every two weeks
- ___ monthly

Please share any other suggestions. Add a page if you like.

Return surveys by January 10, 2000. Send by interlab mail to: Survey, Brookhaven Bulletin, Bldg. 134. From off site, add: BNL, P.O. Box 5000, Upton, NY 11973-5000.

BERA Holiday Bash — Last Day to Sign Up

Today is the last day to reserve for BERA's Second Annual Winter Holiday Bash on Friday, December 17, at the Patchogue Knights of Columbus. Tickets at \$20 per person include dinner, dancing, and open bar. Call Charles Gardner, Ext. 5214, chuckg@bnl.gov, Louie Nieves, Ext. 4897, nieves@bnl.gov, or the BERA Sales Office, Ext. 3347.

Wanted for Basketball

The BERA Basketball Club needs captains. The sign-up sheet is in the gym. Contact Mitchell Williams, Ext. 7160, or Jim Desmond, Ext. 4837.



Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action Plan, selections are made without regard to age, race, color, religion, national origin, sex, disability or veteran status. Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people. Except when operational needs require otherwise, positions will be open for one week after publication. For more information, contact the Employment Manager, Ext. 2882; call the JOBLINE, Ext. 7744 (344-7744), for a complete list of all job openings; use a TDD system to access job information by calling (516) 344-6018; or access current job openings on the World Wide Web at <http://www.bnl.gov/JOBSt/jobs.html>.

OPEN RECRUITMENT - Opportunities for Laboratory Employees and Outside Candidates.

MK8790. ASSISTANT SCIENTISTS - (two positions) Requires a Ph.D. in nuclear or high-energy theory and at least two years' postdoctoral experience. The Nuclear Theory Group has active programs in the theory of heavy-ion collisions at ultrarelativistic energies and in the structure of nuclear physics. Appointments would begin in September, 2000. Under the direction of L. McLerran. Physics Department.

MK8792. POSTDOCTORAL RESEARCH ASSOCIATES - (three positions) Requires a Ph.D. in nuclear or high-energy theory. The Nuclear Theory Group has active programs in the theory of heavy-ion collisions at ultrarelativistic energies and in the structure of nuclear physics. Appointments would begin in September, 2000. Under the direction of L. McLerran. Physics Department.

MK8789. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in experimental particle physics. Position is with the Omega Group working with the ATLAS Group. The Laboratory is taking a leading role in the ATLAS Experiment at CERN with major responsibilities for the Liquid Argon Calorimeter with additional major responsibilities in the cryostat/cryogenics for the Barrel Calorimeter, readout electronics, system integration, physics analysis and simulation. The selected candidate is expected to contribute significantly to one or more of the above activities. Under the direction of D. Lissauer. Physics Department.

MK8514. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in accelerator physics with both theoretical and experimental capabilities relating to biological and medical research and experience with detector systems used to measure and visualize 3-D distributions for dosimetry with heavy ions. In addition, requires familiarity with FORTRAN and C programming languages. Under the direction of P. Pile. Collider-Accelerator Department.

NS7823. COMPUTER PROGRAMMER/ANALYST POSITION - (reposting) Requires a bachelor's degree in computer science, advanced degree preferred, a strong UNIX background; programming expertise in JAVA and C, and excellent communication skills. Experience in web-based applications development with background in PERL, CGI, HTML, and JavaScript is highly desirable. Responsibilities will include assisting in the design and development of remote web-based monitoring and control systems for biomedical experiments performed at the Structural Biology facility. Biology Department.

NS8513. PHYSICS ASSOCIATE POSITION - Requires a BS in engineering and/or technology (master's degree in one of the physical sciences is a plus), and extensive knowledge and experience in physics, accelerator vacuum, and ultra-high vacuum technology. Responsibilities will include modeling of vacuum systems for the Spallation Neutron Source (SNS) ring, design and setup of prototype test facility, developing TiN coating parameters for SNS vacuum chambers and conducting vacuum measurements. Collider-Accelerator Department.

DD8209. TECHNICAL POSITIONS - Requires a customer-oriented individual with an AAS degree or equivalent significant experience in the waste management industry including radiological operations experience and Radiological Worker and HAZWOPER training. Radiological and/or hazardous waste packaging/handling/labeling experience and knowledge of BNL Standards and/or DOE orders that apply to waste management also required. Will support the Generator Services Supervisor in assisting generators in the processing of radioactive and hazardous waste characterization, providing technical support to generators on waste management issues, assisting generators in pursuing waste minimization opportunities. Waste Management Division.