

Brookhaven Bulletin October 29, 1999

New Collider-Accelerator Department Formed at the Lab

On October 1, the Relativistic Heavy Ion Collider (RHIC) Project and the Alternating Gradient Synchrotron (AGS) Department combined to form the Collider-Accelerator (C-A) Department, with former AGS Chair Derek Lowenstein (page 1, front right) as the new C-A Chair.

"This transition has been planned for more than a year, and marks the beginning of a new era of accelerator operation and physics at the Laboratory," said Laboratory Director John Marburger. "The C-A Department combines the new skills developed during the long period of RHIC construction with the exceptional experience of both the RHIC and AGS groups in operating state-of-the-art facilities.

"Satoshi Ozaki will continue to lead RHIC operations through the arduous period of start-up and early operations," Marburger continued. "Satoshi and Derek have been working closely on the difficult problem of weaving together the staffs and leadership of the two groups. Both groups deserve tremendous credit for their accomplishments, and the trick is going to be to capitalize on the pride as well as the momentum that has sustained accelerator work at BNL for all these years.'

Satoshi Ozaki, former RHIC Project Director, has been named Associate Laboratory Director for RHIC, with line responsibility for C-A and the new Superconducting Magnet Division.

That division will be now be headed by Mike Harrison, former RHIC Associate Project Director, who will also lead the Large Hadron Collider magnet effort under Tom Kirk, Associate Laboratory Director for High Energy & Nuclear Physics.

"Combining two large organizations that have had separate missions is always a difficult task," said Ozaki, "but a task that can be successfully achieved if done with the management of both organizations' working closely, as we did. Our goal was to set up a structure that can meet the challenges that face the new department while deploying all of our employees to their best advantage. I believe that we have, by and large, achieved this goal with only a few exceptions. What helped in the transition was the fact that from the beginning, we incorporated joint RHIC-AGS groups in several key areas.

"It was also helpful that a large number of employees within both organizations took voluntary retirement, so there were no involuntary layoffs at the end of RHIC construction," he added.

The Associate Laboratory Director for RHIC concluded, "The new Collider Accelerator Department has many jobs to do, the most important of which is the timely and productive operation of RHIC at the frontier of nuclear physics. I count on the members of the new department to unite their efforts in meeting whatever challenges lie ahead.'

Scientific and most technical staff associated with the BRAHMS, PHENIX and STAR detectors have moved into the Physics Department, and the PHOBOS team has become part of the Chemistry Department. Infrastructure support for the detectors is now provided by a technical support group

"The dedicated hard work of many

unsung individuals from all areas of BNL has made it possible to bring RHIC into fruition," commented Lowenstein. "Without this dedication, BNL would not have been able to build such a complex state-of-the-art accelerator facility."

Back to the Future

Back on October 1, 1984, the day the AGS Department was created from the then Accelerator Department, the new Chair was Lowenstein. That year, the AGS accelerated polarized protons to a world record of 16.5 billion electron volts, and many new experiments were planned.

Also in planning that year was RHIC. On October 16, the first step toward heavy-ion research at BNL was taken by breaking ground to construct the 2,000-foot-long beam transfer line that now links the AGS and the Tandem Van de Graaff accelerator, where the heavy ions are generated.

In 1985, Thomas Ludlam, now Deputy Associate Laboratory Director for High Energy & Nuclear Physics, headed a new task force to develop plans for RHIC, the effort funded at this point by BNL's Exploratory Research Program. By 1987, the RHIC Division in the Accelerator Development Department was running the RHIC program. Then, in 1989, Ozaki returned to BNL to become RHIC Project Head. In 1990, came the news that RHIC construction was funded in the nation's fiscal year 1991 budget.

Before RHIC got underway, the Booster, started in 1988, came on line in 1991. This small accelerator increased the range of ion species available to the AGS from the Tandem and enabled the AGS to inject into RHIC heavy ions as massive as gold. Milestones followed until RHIC was commissioned this summer.

Concluded Lowenstein, "Our challenge is to carry on the great tradition of the Cosmotron and the AGS, so that we can celebrate future Nobel Prize experiments performed at RHIC."

– Liz Seubert with Marsha Belford

Mercury Bake-Off



As part of a DOE comparative study on ways to remove mercury from mixed-waste soil, scientists and engineers from SepraDyne/Raduce, (SDR) Inc., are working with BNL to demonstrate this pilot-scale highvacuum thermal desorption unit. The goal is to separate mercury waste from radioactive waste in contaminated soil so that these two waste streams can be disposed of separately at a lower cost than the mixed waste would require. In previous testing at BNL, the process has also been shown to be effective in destroying dioxin and furan contaminants. This technique is one of several being evaluated as part of DOE's mercury "bake-off" — which includes the BNL-developed sulfur polymer stabilization/solidification process reported on earlier (see Brookhaven Bulletin, January 8, 1999). Attending the demonstration at BNL are: (from left) Glen Todzia and Thomas Grieve, both of the Waste Management Division; Caroline Polanish, DOE Brookhaven Group; Paul Moskowitz, Department of Advanced Technology (DAT); Lauren Brechtel, Environmental Restoration Division (ERD); Paul Kalb, DAT; Robert Hall, DAT; James Brower, ERD; and David Malkmus, SDR.

Karen McNulty

Fifth International Symposium **On Body Composition Studies**

New challenges in body composition research and the new technologies to meet them were the topics of the Fifth International Symposium on Body Composition Studies held at BNL October 7-9. With 62 oral presentations and 75 posters focusing on instruments designed to measure body composition, including applications in normal human physiology and in clinical settings, the symposium drew 150 scientists from more than 20 countries.

As conference organizer Seiichi Yasumura of the Medical Department pointed out, much of the instrumentation discussed was developed at BNL

"The Lab has maintained a strong program in body composition studies since the pioneering work of Stanton H. Cohn in the early 1960s," said Yasumura, who had co-organized the first international body composition symposium, which was held at BNL in 1986, the year Cohn retired from the Lab.

'We have collaborated with clinicians at Winthrop University Hospital, the State University of New York at Stony Brook Medical Center, and St. Luke's-Roosevelt Medical Center. Programs have emphasized body-composition measurements not only in a large number of normal individuals, but also patients with obesity, anorexia nervosa, cancer, alcoholism, chronic renal disease, or AIDŠ," Yasumura said.

In providing a forum for new and emerging body-composition technologies, the symposium highlighted a new instrument at BNL: a tandem accelerator that will use a technique called gamma nuclear resonance absorption to measure nitrogen, and, potentially, the distribution of protein — primarily muscle — in the body.

"This type of measurement is useful in sports medicine," explained

Medical's Lucian Wielopolski, head of BNL's body composition studies, who is taking the lead role in developing the accelerator. "It allows doctors to monitor treatment progress in postsurgical patients, nutritional interventions for malnutrition, and patients with a debilitating

The accelerator, which was transferred to BNL from the Federal Aviation Association, is being installed by AES, Inc., of Medford. David Vartsky, Soreq Nuclear Research Center, Israel, is collaborating with Wielopolski on the accelerator development. A milestone related to this work that was reported at the proceedings was the commissioning of the accelerator's injector with a 4-milliamp proton beam on October 6.

Assisting Yasumura in organizing the symposium were committee members: Wielopolski, Itzhak Orion, Onarae Rice, Kathleen Vodopia, Gloria Ganci, Adrienne DeBoard, Wilmar Estrada, and Walton Shreeve, all of Medical; and Avril Woodhead, Information Services Division.

Arrivals & Departures

Arrivals

Jennifer A. Clodius Comm. Involv. Steven L. Keller Rad. Control **Departures**

David P. Dayton C-A Joseph M. Geller C-A Anthony R. Gullo Jr. C-A Adam Leskowicz C-A William A. Love Physics Damien M. Pierce Physics Arlene WaltzRHIC

Correction

BNL employee James E. Leskowicz, Collider-Accelerator Department, was inadvertently listed among the Departures in the Brookhaven Bulletin of October 22, 1999. The departing employee was Adam Leskowicz.

Coming Up

On Wednesday, November 10, Thomas Koetzle, a Chemistry Department research collaborator, will give the 349th Brookhaven Lecture, "What Can Neutrons Tell Us **About Molecular Structure** and Dynamics?" The talk will start at 4 p.m. in Berkner

Coffee and cookies will be available at 3:30 p.m. and refreshments will be served afterwards. All who would like to join the lecturer at a restaurant off site may call Sabrina Parrish, Ext. 4303, by noon on that day.

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Over 300 BNLers Marched Into May, While Over 200 Fell Into Fitness

Last spring and this fall, BNL employees have taken the time to get in shape, by participating in one or both of the seasonal fitness programs sponsored by the Health Promotion Program of the Occupational Medicine Clinic.

Last spring, some 328 employees enrolled in March Into May (MIM), a ten-week exercise program which began March 22 and ended May 28. Of those, 80 percent, or 262 participants, reached their personal point goals, and 85 percent, or 279, scored at least 100 points at the end of the ten weeks. One point equalled ten minutes of any energetic activity.

High Points Achieved

Before they began "marching" into May, employees set their goals and, daily during the program, the points were logged on an activity sheet. By week ten, the number of points scored ranged from 30.5 to 775. The highest number of points was accumulated by Sheikh Farooq, then of the Relativistic Heavy Ion Collider (RHIC) Project.

Other high-point achievers were: Bob Weggel, Physics Department, 640 points; Fred Horn, Safety & Health Services (S&HS), 608; Marilyn Johnson, Plant Engineering (PE) Division, 607; Ed Kaplan, Department of Advanced Technology (DAT), 600; Richard Scheidet, PE, 598.5; Frank Biele, S&HS; Lisa Muench, Radiation Control Division, 568.5; Charles Carlson, the then Alternating Gradient Synchrotron Department, 532; and Jim Higgins, DAT, 502.

Feeling Fitter

Again this year, participants reported improvements in their daily lives that they attribute to taking part in this year's March Into May.

For instance, over 100 people had increased energy, could better control their weight, handled stress more effectively, and/or felt better about their

Holiday Parties: Time To Reserve

Recreation Building

Lab organizations and BERA groups interested in reserving the Recreation Building in the apartment area for holiday parties may send a representative to a meeting on Friday, November 5, at 11:30 a.m., in the conference room of the Human Resources Division, Bldg. 185A.

Reservations will be made in the order determined by a lottery held at the meeting. As long as dates are available, subsequent reservations may be made through Tuesday, November 30, by contacting M. Kay Dellimore at the Recreation Office, Ext. 2873.

Brookhaven Center & Berkner Hall

Reservations for parties at the Brookhaven Center or Berkner Hall may be arranged by calling Christine Ronick, Administrative Support, Ext. 3545. Contact Flik International, Ext. 3541, for your catering needs during the holiday season.



Published weekly by the Media & Communications Office for the employees of BROOK HAY EN NATIONAL LABORATORY Liz Seubert, Editor Ann Ferrar Dusek, Reporter Contributor, Karen McNulty

Bidg, 134, P.O. Box 5000 Upton NY 11973-5000 Tal. (516) 344-2345; Fax (516) 344-3368



bodies. More than 75 but fewer than 100 commented that they fit into their clothes better, were less irritable, slept

better, were more productive, and/or concentrated better.

In addition, over 50 participants

Fall Into Fitness Ended Friday; Return Travel Logs by Today

Beginning September 20 and ending last Friday, October 22, some 230 employees traveled to different cities around the world — without leaving the area and while getting fit.

They did this by joining the Lab's first Fall Into Fitness program. By popular demand, this seasonal fitness program was instituted by the Health Promotion Program (HPP) of the Occupational Medicine Clinic, as a fall follow-up to the spring March Into May exercise program.

Participants began their travels in New York City and, by logging each minute of energetic activity as 30 miles of travel, could traverse to London, Berlin, Rome, Moscow, Toyko, Mexico City and, after covering 20,000 miles, back to New York City.

With the program's end, participants are asked to return their travel logs to Health Promotion Specialist Mary Wood, Bldg. 490. Those with questions about this or any other HPP offering may call Wood, Ext. 5923.

— Marsha Belford

Noon Concert, Wednesday, November 3

Pianist Oksana Ezhokina will present works by Bach, Brahms, and Haydn at the Wednesday noon recital on November 3. Oksana began her musical training in Ryazan, Russia, coming to Washington State in 1993 for further piano studies. Upon receiving her bachelor's degree in 1997, she studied at Northern Illinois University with Donald Walker. Currently, she is in the doctoral program at the State University of New York at Stony Brook. Noon recitals are free, informal and open to all. Bring lunch; come and go as you please.

Cut Medical, Day-Care Costs With Reimbursement Accounts

BNL offers comprehensive health plans, but not all expenses are covered in full, such as eyeglasses, physical exams, deductibles, coinsurance and expenses above reasonable and customary limits. And, although on-site child care is available at the Lab, the cost of child care, as well as elder care, can quickly add up.

Employees can reduce these costs by opening Health Care and Dependent Day Care Reimbursement Accounts. Through salary reduction, these accounts set aside before-tax dollars to pay for out-of-pocket health and dependent day-care expenses. Actual costs are lower because of the tax savings.

Enrollment in these accounts is going on through November 30. Employees who work at least 20 hours a week may set aside from \$300 to \$2,500 in the Health Care Account and/or \$300 to \$5,000 in the Dependent Day Care Account.

The following expenses are not eligible for reimbursement: agency fees for aupair placements and adopting children; registration fees paid for day care, summer camp, preschool, kindergarten, etc., unless these fees are applied toward the first tuition bill, and only if the fees are shown on the bill to be deducted from the regular tuition charge and only once that bill has been paid. The cost paid to a daycare provider for dependents' meals is a reimbursable expense, unless those meals are included as part of the cost of a field trip or other outing.

Employees who want to sign up for 2000 must complete new forms, even if they are currently enrolled for 1999. For forms or more information, contact the Benefits Office, Ext. 2877. Return forms to the Human Resources Division, Bldg. 185, by November 30, for coverage effective January 1, 2000

increased their fruit and vegetable consumption and decreased their dietary intake of fat.

As one participant noted, "By . . . participating in MIM, I felt committed to setting up and participating in an exercise routine. Not only did I participate, but I also came close to my own goal. Even when I was wondering why I had signed up and could have skipped the exercise, I would not take the easy way out. Thanks for the opportunity!"

Another added, "I think it's admirable that BNL encourages this. It was good seeing everyone out exercising."

In celebration of the program's successful completion, some 110 walkers donned their March Into May T-shirts and strolled or strode for two miles during a spring walk held on June 15.

And, the final of three raffles held as incentives for participants yielded the following winners: Biays Bowerman of DAT and Debbie Keating of the then Division of Contracts & Procurement, who each received a sports duffle bag; and George Sintchak of RHIC, Peter Palamidis of PE, and Brenda Riddle of the Financial Services Division, who each won a water cooler.

This was the second year that the Lab had been selected by the Centers for Disease Control and the National Coalition for Promoting Physical Activity to have its staff, regardless of initial fitness and activity levels, participate in this program. The program was organized by Health Promotion Specialist Mary Wood, who had the help of 28 captains in the departments and divisions around site.

Besides asking that March Into May be repeated next year, "Another frequent comment made by participants was, 'Offer an exercise program during the other seasons!'," explains Wood. In response, she organized Fall Into Fitness, which ended last Friday and for which activity logs are due today (see box).

— Marsha Belford

Suggest Candidates For Employee Relations Committee

At the end of December, two members of the Employee Relations Committee (ERC) will have completed their three-year terms. The Laboratory Director is now seeking two new members to appoint to this eight-member group.

The purpose of the ERC is to help non-bargaining, nonscientific employees resolve work-related problems that they are unable to resolve with their supervisors. ERC members must be able to hear all sides of an issue objectively, work out equitable solutions, and maintain complete confidentiality.

If you would like to be considered for the ERC, or if you wish to suggest a candidate, contact the head of your department by November 5.

To bring a problem to the ERC's attention, call chairperson Neil Schaknowski, Ext. 4261, or one of the other members: John (Jeb) Barry, Ext. 6315; Anne Corr, Ext. 2427; Joe Gatz, Ext. 4212; Patricia Meehan, Ext. 3776; Jon Sandberg, Ext. 4682; Lisa Toler, Ext. 2276; Nancy Warren, Ext. 7548; or Arline Willsey, Ext. 3490.

Dosimetry badges will be exchanged today, Friday, October 29. Therefore, please place your badge in its assigned rack space before leaving work today.

On-Site Shuttle Service at BNL

Beginning Monday, November 8, the Lab Transportation Office will provide on-site shuttle service for everyone without transportation. The shuttle will accept passengers only — no equipment or luggage — and will run weekdays from 8 a.m. to 5:45 p.m.

A detailed schedule will be announced via Lab-wide e-mail and printed copies will be available in Berkner Hall; the Transportation and Housing Offices, Bldg. 179; and the facility-user offices of the National Synchrotron Light Source and Relativistic Heavy Ion Collider.



Ringy Dingy 631

While you are remembering to change your clocks and smoke detector batteries, add some more memory and think about your area code. As of November 1, most of Suffolk County changes from 516 to 631.

Hospitality Committee Needs Volunteers

The Hospitality Committee needs volunteers to help organize hospitality events for on-site residents and their friends, including the welcome coffee, family nights, bus trips, and other special events. If you are interested, call Julie Kim-Zajonz, 929-0405.

Children's Halloween Party

Children of all ages and their parents are invited to the Hospitality Halloween Party on Sunday, October 31, starting at 3:30 p.m. There will be lots of fun and games. Parents are also invited to dress up! Bring a snack to share. Beverages will be provided. For more information, call Halina Goraczniak at 205-1525.

Water Aerobics

Six weeks of in-water stretching and aerobics classes will again be offered at the Lab pool, Bldg. 478, from 5:20 to 6:10 p.m., on Tuesdays and Thursdays. The first classes will be on November 9 and 11.

Sponsored by the Health Promotion Program of the Occupational Medicine Division, water aerobics classes are free to members with a season pool pass; nonmembers must pay the pool fee of \$2 a session. Employees and their spouses may sign up by calling Health Promotion Specialist Mary Wood, Ext. 5923.

BERA Holiday Bash

Start up the holiday spirit by reserving a place at BERA's Second Annual Winter Holiday Bash, which will be held on Friday, December 17, at the Knights of Columbus in Patchogue. Plan to mingle with a party of fellow employees over dinner and perhaps some dancing.

A cash bar will be available. Before December 10, obtain tickets at \$20 per person, from Charles Gardner, Ext. 5214, chuckg@bnl.gov, Louie Nieves, Ext. 4897, nieves @bnl.gov, or at the BERA Sales Office.

No Bulletin 11/12

In observance of Veteran's Day, the Lab will be closed on Thursday, November 11, so there will be no Bulletin on Friday, November 12.

Halloween Madness Party Tonight

Join BERA's Halloween Madness Party tonight at the Brookhaven Center, from 6 to 11 p.m. The party is for adults only, and everyone is requested to wear a costume. Admission will be \$5, paid at the door. It includes refreshments, games, prizes, and music by ET. A cash bar will be available. For information, call Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

Classified Advertisements

LABORATORY RECRUITMENT - Opportunities for Laboratory Employees.

DD8380. SECRETARIAL POSITION (part-time) - Requires an AAS degree in secretarial science or equivalent experience, a knowledge of Laboratory policies and procedures and excellent oral and written communication skills. Must be proficient in processing information using a PC. Will utilize state-of-the-art software such as Microsoft Word, Power Point, Outlook, etc. for word-processing/presentations. Will perform secretarial tasks including the preparation of correspondence, filling domestic and foreign travel authorizations, reservations and vouchers, viewgraphs and distribution. Department of Advanced Technology.

OPEN RECRUITMENT - Opportunities for Laboratory Employees and Outside Candidates.

NS7431. DEPUTY MANAGER FOR PROGRAMS -Requires a bachelor's degree in a related field (advanced degree preferred); at least ten years' experience in managing various aspects of security organizations; proven experience in planning, auditing, classification, and cyber protection; and a working knowledge of nuclear materials' safeguarding. Excellent oral and written communication skills and computer literacy is necessary. Will be responsible for the nuclear materials control and accountability program; personnel, information, and classified computer security programs; planning; auditing; and self-assessments. Must be able to obtain and maintain a DOE security clearance. Safeguards and Security Division. MK8291. SCIENTIST - Requires a Ph.D. in physics and experience in the application of high-energy, heavy ions in biological and medical research. In addition, requires at least 10 years' experience in beam-line design, dosimetry, and beam instrumentation with applications for radiation biophysics at the Booster Applications Facility and the AGS. Under the direction of P. Pile. Collider-Accelerator Department.

NS8290. ELECTRICAL ENGINEERING POSITION - Requires an MSEE, a strong background in physics and the ability to work independently on the design and development of instrumentation — through production, installation and commissioning. Experience in the development and design of one or more types of instrumentation used at a high-energy particle accelerator (including beam loss monitors, beam current transformers, etc.) is highly desirable; familiarity with common engineering design software such as AutoCAD, LabView, Pspice and various schematic capture programs is desirable. Collider-Accelerator Department.

NS8420. CONSTRUCTION ENGINEERING POSITION (term appointment) - Requires a BS in civil or mechanical engineering with substantial experience in construction and/or decommissioning experience related to civil engineering projects. Demonstrated knowledge and skills in the preparation and review of engineering designs and specifications; hazardous and/or radioactive waste management, from planning through disposal; construction and safety regulations, and computer literacy and excellent communication skills are necessary. Environmental Restoration Division.

NS8421. FIELD ENGINEERING POSITION (term appointment) - Requires a BS (MS preferred) in civil, mechanical, chemical or environmental engineering and experience in environmental remediation system design, construction and/or operation and maintenance. Knowledge and skills in the preparation or review of engineering designs and specifications, field oversight of environmental remediation related construction activities and computer skills and excellent communication skills are necessary. Environmental Restoration Division.

DD7812. ENGINEERING POSITION (term appointment, reposting) - Requires a BS in electrical engineering or equivalent experience, demonstrated experience with TTL and simple analog design techniques, and knowledge of C and/or Intel assembly languages. Working knowledge of AutoCAD and experience with a major electronics design simulator (SPICE) desirable. Will support facility upgrades for the structural biology beam lines at the National Synchrotron Light Source. Responsibilities will include: the design and implementation of digital and analog circuitry, low-level programming of various control systems, maintenance and repair of existing electrical and electronic systems, including stepping motor control systems, NIM and VME based electronic systems, and various special purpose circuits, and participation in ongoing upgrades of motioncontrol and data collection systems involving the installation of commercial control and power systems. Biology Department.

DD8289. DESIGN POSITION - Requires the ability to perform mechanical design functions, with a working knowledge of engineering fundamentals, machine

design, shop practices, welding, and vacuum systems. Experience with AutoCAD REL 14, Mechanical Desktop, and familiarity with ANSI Y14.5 Standard also required. Must be familiar with Windows NT/95 environment. Will be responsible for design projects from conceptual layouts to detailed working drawings. Collider-Accelerator Department.

NS8294. ADMINISTRATIVE/BUDGET POSITION - Requires a bachelor's degree in accounting, or the equivalent, and excellent communication skills. Budget, forecast and estimating experience is highly desirable, as is familiarity with Microsoft Office products, including Outlook, Word and Excel. Responsibilities will include budget development and analysis of cost and commitment. Collider-Accelerator Department

DD8281. RADIOLOGY TECHNICIAN POSITION (On call basis) - Requires a NYS license as a Diagnostic Radiology Technician. Primary responsibility will be to take x-rays as part of the Occupational Medicine Clinic exams. Additional duties will include performance of clinical laboratory procedures (vision and hearing tests), electrocardiograms (EKG) and phlebotomy. Experience in or willingness to be trained in these secondary tasks is essential. Training will be provided. Occupational Medicine Clinic.