BNL Honors Engineering, Computing Achievers With New Award

BNL’s annual Employee Recognition Awards were established in 1991. This year, at the Lab’s First Employee Recognition Awards Ceremonial Ceremony on February 2 (see Brookhaven Bulletin, February 18, 2000), a new Engineering Award was inaugurated to honor distinguished contributions in engineering and computing. This $5,000 award gives direct recognition to the wider efforts of people in this area and their importance to BNL’s mission.

The winners of the award are: David Alexoff, Chemical Department; James Cullen, Collider-Accelerator Department; Robert Lee, Environmental Services Division; Joseph Mead, Instrumentation Division; and Robert Schetz, Physics Department. Summaries of the accomplishments of the honorees appear below.

David Alexoff

In the words of Carol Creutz, former Chemistry Department Chair, David Alexoff is recognized for his "outstanding, creative, generous and broadly based contributions to PET research at Brookhaven National Laboratory." Alexoff came to BNL in 1981 as a chemistry associate IV in Chemistry's positron emission tomography (PET) group.

Now a research engineer I, Alexoff designed and built an automated system for the positron emission tomography (PET) group.

James Cullen

Project Engineer James Cullen of the Collider-Accelerator (C-A) Department is recognized for leading the mechanical engineering effort of the muon g-2 storage magnet. Cullen, who had come to BNL as a development engineer II in 1978, was the first engineer to begin this project in 1987. He developed the conceptual design with a team including physicists and engineers from BNL and KEK, Japan.

Joseph Mead

A research engineer II in the Instrumentation Division, Joseph Mead is being recognized for successfully completing three major electronics engineering projects that are crucial to the Laboratory.

For the RHIC project, Mead helped design and develop the electronics to monitor beam position in the RHIC rings. He also designed and developed the timing system for the PHENIX detector of RHIC. During the same period, Mead took on yet a third project, the development of new technology for high-speed data acquisition.

Robert Lee

Robert Lee, Deputy Manager of the Environmental Services Division (ESD), received a Brookhaven Engineering Award for his continued contributions to environmental excellence at the Laboratory.

Since joining BNL in 1991, as a project engineer, Lee has provided technical assistance to organizations.

Robert Schetz

Research Engineer Robert Schetz is being recognized for 20 years of developing leading-edge designs and hardware for accelerator controls and data acquisition. Schetz came to BNL's Physics Department in 1963 as an intermediate technician. He received a B.S. in physics in 1972. Throughout his career, Schetz has received numerous awards and recognitions for his contributions to the field of accelerator physics.

BNL Collaboration Determines How Aging Affects Brain Chemistry

How does aging affect the brain? Researchers from BNL, the State University of New York at Stony Brook and the University of Pennsylvania School of Medicine have found chemical changes in the brain that may underlie the cognitive deterioration associated with aging. The results of their experiment were reported in the January 2000 issue of The American Journal of Psychiatry.

"In this study, we have shown that age-related loss of dopamine, the brain chemical associated with pleasure and reward, slows metabolism in regions of the brain that are related to cognition," said Nora Volkow, Brookhaven's Associate Laboratory Director for Life Sciences and the lead author of the study.

The researchers found that age is associated with a significant decline in dopamine D2 receptors — molecules that transmit signals that are associated with pleasure and reward in the brain. Approximately 60 percent of these receptors are lost with each decade of age, from 20 to 80 years. This decrease in dopamine with aging has been corroborated by other studies performed by Volkow and others. In the current investigation, researchers discovered for the first time that, when dopamine D2 receptors decreased, so did regional glucose metabolism in areas of the brain that are related to cognition.

In the group of healthy participants, glucose metabolism decreased with age in the frontal brain regions and a part of the brain known as the anterior cingulate gyrus. Decreased glucose metabolism translates to decreased activity in these regions of the brain.

BNL Bulletin
Vol. 54 - No. 9
March 17, 2000

BROOKHAVEN NATIONAL LABORATORY
**Coming Up**

Sponsored by the Brookhaven Retired Employees Association, members will present a talk and video on his journey to Antarctica in his sailboat Fiona. The talk will be held on Tuesday, March 28, at 4:30 p.m. in Bkn Hall. All are welcome.

Garman Harbottle, Chemistry Department, will give a BSA Dis- cussion on “Great Discoveries” of Chinese Civilization: Re- cent Archeological Discoveries, on Wednesday, March 29, in Bkn Hall. All are welcome.

**David Alexoff**

(contin’d)

For making the short-lived rad- ioisotope (FGD), designed and imple- mented a robotic tracking sys- tem that is unique in the world, developed a motion sensor for microfluidics, and implemented new programs for imaging analysis on a new commercial PET scanner. The FGD is operated by Alexoff, which Alexoff built before any commercial devices were available, relieved chem- ists from the tedious and time-consuming routine synthesis and, by doing so, greatly reduced personnel radiation exposure.

The robotic system has eliminated exposure to human blood and also saves personnel time. Alexoff’s motion sensor has pro- vided a new perspective on the effects of drug on animal behavior, which is now used in research aimed at develop- ing new treatments for cocaine abuse. Finally, his image analysis programs are used only by the PET team to quantify data. — Mona Rowe

**Robert Lee**

(contin’d)

across the Laboratory to help them operate in an environmentally respon- sible manner. He works to ensure that the end user can afford to take for granted! — Karen McNulty

Robert Scheetz

(contin’d)

designed hardware that has been es- sential for heavy ion transfer line, the Tandem Van de Graaff’s custom data-acquisition system, data acquis- ition systems for several experiments at the Alternating Gradient Synchrotron, and for the STAR and BRAHMS experiments at the Relativistic Heavy Ion Collider.

“In the field of high-speed digital electronics, we have developed and sold every two years and new design tools are constantly introduced, Bob always stays on the leading edge, finding new applications that perform as required and which the end user can afford to take for granted.” — Karen McNulty

**Prize String Musicians Program March 22**

The BSA Cultural Program will sponsor a concert by the Vogier Quartet of Berlin, Wednesday, March 22, at 8 p.m., in Bkn Hall. In 1985, one year after the Vogier Quartet of Berlin began playing together, the four string musicians won first prize at the International String Quartet Competition in Evian, France.

At that time, they also received the Prize of the Press Jury and the special prize for their outstanding interpretation of Schubert’s quartet work. Since then, they have performed in major concert halls throughout Europe, and in Israel, Japan and the U.S. In 1990, the quartet signed an exclusive recording contract with BMG/RCA. Since then, they have performed in major concert halls throughout the world. — Karen McNulty

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(contin’d)

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**James Cullen**

(contin’d)

hired engineers and the lead techni- cian, selected the designers and coor- dinated their efforts. Cullen’s leader- ship style, says Derek Lowenstein, C-A Department Chair, “led to a very smooth, efficient working environment, with the entire team assuming ownership of the work.” And the resulting magnet, which, at 34 meters in diameter, is the largest superconducting magnet ever built, met all specifications for performance. It is the major piece of equipment for the world’s best measurement of the muon anomalous magnetic moment, a key measurement in our un- derstanding of the standard model of high-energy physics.” Lowenstein says.

— Karen McNulty

**Joseph Mead**

digital signal processing which will be used in a detector that the instrumen- tation Division is building for Los Alamos National Laboratory.

Each of these projects required de- velopment of conceptual and techni- cal designs, prototype hardware and software fabrication and testing, and, finally, production versions for final installation — all on a very short time scale. Vejko Radeka, Head of Instrumentation, describes Mead as having “extraordinary engineering talent and skills” coupled with “an extraordinary sense of structure and organization.”

Headed up BNL’s efforts in the summer of 1993 as a student assistant and in a few months became a full-time employee as a staff engineer. — Mona Rowe

**Update on RHIC**

A recent Columbia University News release on their involvement in the PHENIX experiment at the Relativistic Heavy Ion Collider (RHIC) sug- gested that the collider would begin running on March 15. That date, how- ever, marks the end of the g-2 experi- ment at the Alternating Gradient Synchrotron (AGS) and the beginning of the switchover from ac- celerating protons to generating gold ions. The AGS, along with the Tandem Van de Graaff accelerator and the Booster, played an integral role in pre- accelerating gold ions before they en- ter the RHIC rings.

Meanwhile, a cool-down of RHIC’s magnets and testing of power supplies is well underway. RHIC’s Blue Ring is expected to be cooled to a temperature of 4 K by March 20. The Yellow Ring will follow on March 31. Power supply testing will begin into early April. "So it will be a few more weeks before beams begin circu- lating." Says Waldo MacKay, head of machine operations for the Collider-Accelerator Department.

With that happy news, some studies focusing on beam acceleration will begin. But beam collisions probably will not begin until April. "First collisions will occur at a beam energy of 70 GeV, 30 percent below full poten- tial. Energy 100 GeV is planned for later in the run, which is expected to go into August. The Bulletin will provide updates on the progress of these events." — Mona McNulty

**On-Site Fire Saturday**

O n Saturday, March 11, while on a routine work assignment, a ra- diological-control technician discov- ered a fire at approximately 9 a.m. in an area where debris is still being shipped off site for disposal. Af- ter technicians determined that no hazards existed, the Laboratory’s firefighters extinguished the fire by 2:27 p.m.

The source of the fire occurred is located in the southeastern portion of the site, in an open field near an inac- tive building. The fire, which was bagged in plastic and stored beneath a plastic tarp covering an area of approximately 100 square meters, contained about 250 cubic yards of material that is primarily soil with small pieces of metal and wire. The material was originally excavated as part of the Lab’s environmental cleanup.

Some of the debris contains very low levels of radioactive materials. On Saturday, radiation levels in the area of the fire were measured to be normal background values. Also, air monitor- ing and contamination survey results around the fire area indicated that no radio- active materials had spread beyond the immediate area.

A committee headed by Michael Schiender, Assistant Laboratory Di- rector for Environmental Manage- ment, will begin a detailed investigation into the cause of the fire, as well as ad- ditional sampling to verify that no con- tamination had spread from the fire. The investigation has three phases: a fire investigation, a field sampling and verification phase, and a recovery phase to repackaging materials that were affected by the fire. — Mona McNulty

**Integrate Safety Management Awareness**

**Integrated Safety Management Awareness**

Integrated Safety Management (ISM) is a term that DOE uses to de- scribe processes and procedures that ensure that the proper environment, safety, and health considerations are systematically inte- grated into the way BNL does its work. The ISM contract requires that DOE formally verifies BNL’s approach to ISM. That verifica- tion process will take place during a formal assessment on May 1-14 and will include inter- views with BNL managers, supervisors and staff. Over the next few weeks, the Bulletin will publish a series of general questions that all BNL managers, supervisors and staff should be prepared to answer during the ISM validation. Whirl responses will vary depending on each individual’s work environment, the detailed text below gives examples of processes that may be appropriate as references.

Today’s questions:

• For Managers and Supervisors: How do you ensure that members of your staff understand the work you are doing for them? For Staff: How are your managers’ or supervisors’ expectations for what you are supposed to do in your job communicated to you?

Possible responses could include references to R2A2s, Performance Goals, Experimental Safety Review documentation, Work Permits, Standard Operating Procedures, strategic planning meetings, business plans, one-on-one meetings, etc.

For more information, contact Doug Ports, Ex. 2726 or ports1@bnl.gov.

**PRIZE STRING MUSICIANS PROGRAM**

**Prize String Musicians Program March 22**

The BSA Cultural Program will sponsor a concert by the Vogier Quartet of Berlin, Wednesday, March 22, at 8 p.m., in Blnk Hall. In 1985, one year after the Vogier Quartet of Berlin began playing together, the four string musicians won first prize at the International String Quartet Competition in Evian, France.

At that time, they also received the Prize of the Press Jury and the special prize for their outstanding interpretation of Schubert’s quartet work. Since then, they have performed in major concert halls throughout Europe, and in Israel, Japan and the U.S. In 1990, the quartet signed an exclusive recording contract with BMG/RCA. Since then, they have performed in major concert halls throughout the world.

Tickets for the concert may be purchased in advance at the reduced rate of $12 for adults, and $8 for students from Gregory Feis, Bldg. 460, Paul Fremuth, Bldg. 463, Bonnie Hulse, Bldg. 185, Ha-Deel Lee, Bldg. 490, Alfredo Lucido, Bldg. 9118, James Muckerman, Bldg. 355A, Stephen Schwartz, Bldg. 815, Laurence Trueman, Bldg. 510A, or Robert Weggel, Bldg. 901A. Tickets purchased at the door on the evening of the performance cost $15 for adults and $10 for students.

**Vogier Quartet**

The Vanguard String Quartet (VQ) will present a recital by the Vogier Quartet of Berlin, Wednesday, March 22, at 8 p.m., in Bkn Hall.

The quartet, established in 1985, has performed in major concert halls throughout the world and has received numerous awards and honors, including a prize in the International String Quartet Competition in Evian, France.

In addition, the quartet has collaborated with many distinguished musicians and ensembles, including the Berlin Philharmonic, the London Symphony Orchestra, and the New York Philharmonic.

The Vanguard String Quartet will perform a program of works by Beethoven, Schubert, Mozart, and Brahms, including Beethoven's String Quartet in A Major, Op. 18 No. 1, Schubert's String Quartet in B-flat Major, Op. 153, and Brahms's String Quartet in B-flat Major, Op. 133.

Tickets for the concert may be purchased in advance for $20 for adults, $10 for students, and $15 for seniors. On the evening of the performance, the cost of tickets will be $25 for adults, $15 for students, and $20 for seniors.

For more information, contact Doug Ports, Ex. 2726 or ports1@bnl.gov.
Meet the Candidates for the 2000 BERA Executive Board

From March 27 through March 31, an election will be held to choose two of the four BERA members featured below to fill two spots on the BERA Executive Board, as representatives of the Brookhaven Employees Retirement Association (BERA) to BNL. ESA and DOE employees of permanent or site contractors are considered BERA members. During four-year terms, beginning in May, the winners will have the opportunity to affect BERA recreation policies. The campaign statements below can help you make an informed choice when you cast your vote. Voting hours will be 11:30 a.m.-1:30 p.m., Monday-Thursday, March 27-29. Or vote Thursday through Friday at the Teachers’ Federal Credit Union, Thursday-Friday, March 30-31 10 a.m.-1:30 p.m.

Nancy Concadoro

Nancy Concadoro, Senior Human Resources Assistant, Human Resources (HR) Division, began her BNL career as a College Work Study student in the Medical Department in 1983. She served as a regular employee from 1985 to 1990, left for some years, then returned to the Lab in HR last year.

"During my years at the Lab, I have been involved in softball, bowling, and kickboxing," Concadoro says. She also participates in many of the BERA clubs, including the BERA Bowling League, and says, "BNL is a terrific place to work, and a lot of what makes it great is the many employee-involved activities and programs that are available to us," she says.

"The think that more employees need to be aware of the many BERA clubs that exist. One of my goals, if I am elected, would be attracting more people to BERA social events and outings. "I've noticed that participation in some of the BERA events is falling, so, if I am elected, a high priority for me would be attracting more people to BERA activities. I appreciate what BERA has done for me, and now it's my turn to do my share."

Patrick Moylan Jr.

"In my 20- some-odd years at the Lab, I’ve enjoyed many of the BERA activities,“ says Tom Dilgen, Technical Program Director, Accelerator Magnet Division.

"The friendships I've made are important to me, and I believe such friendships make the Lab's workforce a stronger, happier and more cohesive unit."

Dilgen, who joined BNL in 1978, has played golf, men's and mixed softball, volleyball, touch football, and basketball on the BERA Bowling League. He works out with the BERA Body Building Club and enjoys BERA trips to sporting events.

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I was honored to be nominated as a candidate for the BERA Board,“ says Patrick Moylan Jr., Senior Technical Specialist, Reactor Division. "The BERA club/soromany activities that everyone has a chance of meeting friends with similirar interests.

Since joining the Lab in 1990, Moylan has been a member of mixed and employees' Softball leagues, taking on the captain responsibilities of a team in the employees' league from 1995 until the present. He has been in the BERA Bowling League, the Exercise and Body Building Club, and the Bowling League, and the Ballroom, Latin & Swing Dance Club.

"Many changes in the past few years have meant that, for many people, morale is low,“ says Moylan. "If I’m elected to the Board, I’d like to use BERA to get people to enjoy being part of the BNL community and help them want to come in to work."

Tom Dilgen

Scharff-Goldhaber Prize in Physics, 3/22

This year's Scharff-Goldhaber Prize in Physics will be awarded to Diana Vaman, a Ph.D. candidate in the Department of Physics & Astronomy at the State University of New York at Stony Brook (USB). The prize will be presented by BNL Distinguished Scientist Maurice Goldhaber on Wednesday, March 22, at 3:30 p.m., in the Seminar Room, Bldg. 510, where Vaman will talk on "Consistent Truncations of 11-Dimensional Super Gravity to 7-Dimensional Super Gravity Theories."

The Scharff-Goldhaber Prize, a $1,000 award given annually, was established to recognize substantial promise and accomplishment by a woman graduate student in physics. Administered by Brookhaven Women in Science (BWIS), the prize honors the outstanding contributions of the late nuclear physicist Gertrude Scharff-Goldhaber. In 1950, she became the first woman Ph.D. physicist appointed to the BNL staff, and, later, a founding member of BWIS.

For more information, contact Pam Mansfield at Ext. 7286.

Look Before Leaping

The Safety Glasses Office, Bldg. 88, will be closed on Wednesday, March 22. The office will reopen on Wednesday, March 29.

Tread Softly

The Safety Shoe Office, Bldg. 188, will be closed on Tuesday and Thursday, March 21 and March 23, and will reopen on Wednesday, March 22.

Basketball

Scores from games on March 9

Bombers 92

Majic 60

Doug Almright 24 Mike Maladi 21

Troy Mayo 23 Terry Buck 17

Don Davis 21

Tracy Fountain 17

Brian 9

Pete Batise 15 Williams 6

Pat Maple 9

Jack Chalupka 6

Saan Bhag 6

Jim Stadler 2

Throwpoint shots: Maladi (5), Majic (4), Buck (2), Williams (2), Bob, Maladi, Majic, Stadler.

Heavers 84

Wizards 65

Saffran 41

Chris Ingoglia 26

Stavero 15

Majic 11

Greg ilia 9

Jerry Costa 10

Reggie Sanchez 7 Chris Fackenberg 8

Tim Powers 6

Charles Edwards 6

Martin McKay 6

Dorian Morgan 4

Throwpoint shots: Ingoglia (4), Garrison (3), ilia, Majic.

You Can Be a Winner of a Scharff-Goldhaber Prize in Physics

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Atlantic City Trip 4/29

The next BERA-sponsored, one-day trip to Atlantic City will be on Saturday, April 29, at an initiation of $25 per person. The name of the hotel-casino and the amount of the coin refund will be announced next week.

The bus will leave the Brookhaven Center at 8 a.m., with an extra pickup at LIE exit 63 if requested. As usual, there will be free movies, games, and rolls or donuts on board; bring your own juice and coffee. After a seven-hour stay in Atlantic City, the bus will return around 11 p.m.

Buy tickets now at the BERA Sales Office in Berkner Hall, weekdays, 9 a.m. to 1:30 p.m. For more information, call Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

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