NEW YORK CITY ALLIANCE NEWS

VOLUME XI ISSUE I DECEMBER 2003

BEYOND THE PLATEAU

It is with a sense of accomplishment that we report graduation and enrollment of underrepresented minorities in the Science, Technology, Engineering and Mathematics (STEM) disciplines have now reached increases of 111% and 82%, respectively. From inception in the 1991/1992 academic year, the Alliance member campuses of the City University of New York have graduated 7,460 underrepresented minority students with baccalaureate degrees in STEM. The impact on the local tri-state economy and the national STEM enterprise over the last decade are to be determined.

Our goal of reaching a level of 1,500 graduates by 2007 requires us to maintain a strident commitment to the mission and goals of the Alliance, develop other areas of partnerships for initiatives across CUNY, regionally and nationally, and continue to create atmospherics in CUNY of high student expectations and achievement.

CUNY's position as one of the leading Minority Serving Institutions (MSI) across the nation results in significant investment by local, federal and private entities. Our student/human resource development programs targeting underrepresented minority students have been used as models, and replicated nationally. Research Centers and Institutes that have been successful in securing major funding because of CUNY's MSI status must now continue the investment by being active practitioners in increasing significantly, underrepresented minority (undergraduate, graduate and faculty) participation in the research activities of the Centers/Institutes.

System-wide, if the increases seen in CUNY enrollment over the last two years approach 1992 enrollment levels, we should see further increases in the STEM enrollment and graduation of underrepresented minorities. I should point out here that our graduation and enrollment levels were achieved and sustained during periods of declining enrollment in CUNY. Recruitment and retention of underrepresented minorities to the University must be coupled with dynamic and directed intervention strategies to increase the graduation rates on par with non-minorities in STEM. Achieving a level of parity will continue to drive CUNY LSAMP initiatives.

ON MY MIND

- Will the recent increase in tuition have an adverse effect on student enrollment as it did in the early years of NYC LSAMP?
- Can we sustain the 2002-2003 increases seen in graduation/enrollment during the upcoming years of Phase 3?
- How do we capitalize on the fact that Computer Science and Computer Information Systems majors accounted for 57.51 % of the graduates in 2002-2003? Should we be concerned about this trend?
- Will the current investment in new faculty at the Community Colleges, and cluster hiring in the Senior Colleges result in significant increases in African American, Hispanic, Native Pacific Islander and Native American faculty hires in the STEM disciplines?

continued on next page

IN THIS ISSUE:

New York City Alliance News

Editor: Claude Brathwaite
Design/Printing: 3D Studios

Individuals wishing to be added to the mailing list should contact Jeanette Schnabel at (212) 650-8854, fax (212) 650-8855.

The New York City Louis Stokes Alliance for Minority Participation is funded under a cooperative agreement with the National Science Foundation.

Beyond the Plateau *continued from previous page*

- How can the Alliance be active in a University-wide approach to minority faculty development, recruiting and retention?
- How do we nurture or plant seeds of entrepreneurial interests in LSAMP Scholars working with CUNY's Institutes, Centers, Incubators and individual Faculty?

Bridge to The Doctorate

NYC LSAMP was one of 13 AMPs nationwide selected to host Bridge to the Doctorate Programs funded by the National Science Foundation. The program will be centered at the Graduate Center of the City University of New York.

The objectives of this Bridge to the Doctorate program is to entice newly minted LSAMP STEM graduates to forego the immediate rewards of the workplace and embark on an extended journey that would provide the long-term gratification of a research/academic career. Recent Tier 1 LSAMP graduates and those who have completed no more than one full-time semester equivalent of graduate study shall constitute the initial target group for the Bridge program.

Selected Bridge students will be beneficiaries of a proactive retention and enrichment program that will include academic and research mentoring, GRE workshops, roundtable discussions with advanced doctoral students, faculty and administrators, and attendance and participation at local and national conferences.

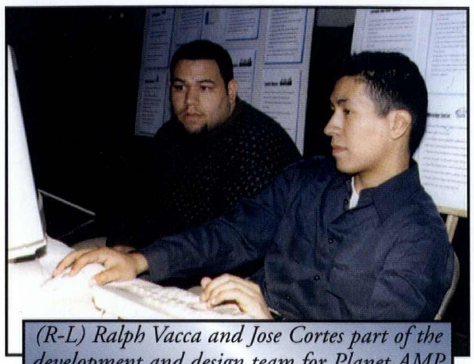
Bridge students will also serve as peer mentors to undergraduate and high school students, providing the motivation to aspire to tertiary and graduate education. Bridge faculty advisors will be encouraged to involve the students in their pursuits of the three pillars of academia, namely, teaching, research and service.

It is expected that at the end of the two years of the Bridge program, the NYC LSAMP will have tracked an increase of at least twenty students into STEM Ph.D. programs.

The Graduate Center, The City University of New York,
365 Fifth Avenue, NY, NY 10016
Bridge to the Doctorate Coordinator at the Graduate Ctr. -
Gail Smith, Acting Assistant Provost

IN THEIR OWN WORDS:

Merging Academic Research and the Business World



(R-L) Ralph Vacca and Jose Cortes part of the development and design team for Planet AMP

Having started at LSAMP, I was, like many other LSAMP scholars, introduced to research and given the freedom to take up a project of interest in a STEM related area. With a passion deeply rooted in computers, I joined a team that took up the development and design of an electronic virtual community Planet AMP (http://nyc-amp.cuny.edu).

It was during the hours of programming that I began to dream of entrepreneurial ventures. I pursued several unsuccessful ventures related to virtual communities within the scope of my LSAMP research and began to realize the powerful link between academia and the business world.

Build your idea from research, formalize the idea in business logic and execute it with the support of the academic community & resources. Research & development centers are factories for entrepreneurial ideas, and if you don't build on it, someone else will.

Lacking any knowledge about the "real world", I pursued with the support of LSAMP, a paid internship through INROADS at JPMorganChase as a junior Java developer. It was here that I met 'actual' programmers and learned the intricacies of the development cycle of software applications. For eight weeks I was submerged in the world of real life professional programmers and became disillusioned with my career path to becoming a programmer.

I began to see that everything around was a possible business venture, and I switched my major at Baruch College from CIS (Computer Information Systems) to Entrepreneurship Management. I continued to learn new programming languages and formalize my software ideas through business plans and financial statements.

It was at this point that I was invited to join a project being funded by a Department of Education grant in conjunction with research at the NYU Advanced Media Labs. The project involved the development of an online course authoring tool. I contributed valuable programming and research experience I picked up at LSAMP and INROADS to the research team. Additional research opportunities led me to join psychology doctoral students in exploring the theory behind corporate training. As part of this team, I conducted research on how learning theories and group dynamics can be applied through computer software.

From these projects, a fellow Baruch classmate, a faculty member, and myself established Kognito- an e-learning company founded to develop online learning environments based on research on human cognition. At Baruch College, I entered the Annual Entrepreneurship Competition and placed third. The winnings were used as start-up funds for Kognito.

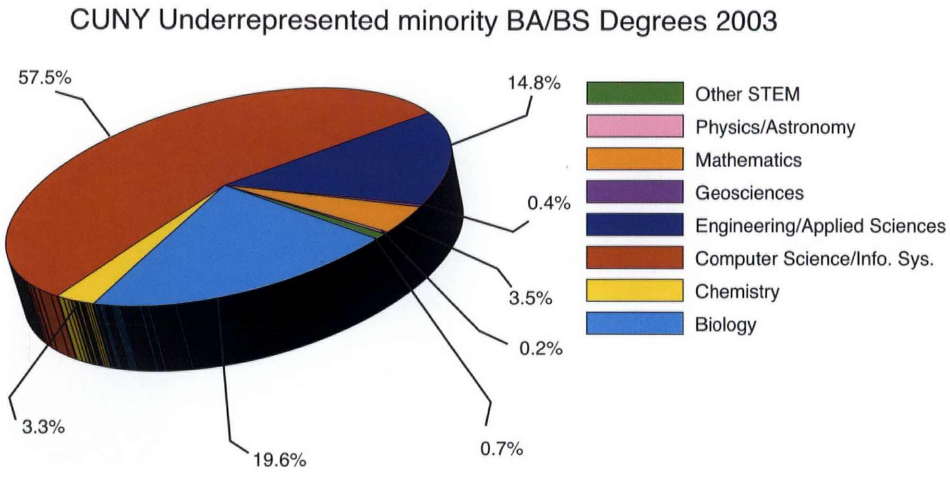
I will complete all my classes and graduate at the end of Fall 2003 from Baruch College, and have applied to several graduate programs in Educational Psychology. I believe that a strong educational component fused with entrepreneurial initiatives will open many doors for opportunities at success. I call to all engineers, mathematicians, scientists and technology crazed individuals to seize the resources at your disposal as an LSAMP scholar. Build your idea from research, formalize the idea in business logic and execute it with the support of the academic community & resources. Research & development centers are factories for entrepreneurial ideas, and if you don't build on it, someone else will.

Kognito (www.kognito.net) currently services 4 mid-size clients including an engineering company with 3,000 engineers nationwide and several Baruch College e-learning initiatives. With a total of nine full-time employees, Kognito is a small company seeking to leverage academic research methodologies to gain a competitive advantage over competitors that fail to implement sound research methodologies into their software products.

As minority students involved in fields where we are vastly underrepresented, entrepreneurial activity is the type of inertial force that functions as a catalyst for exponential growth of minority participation in that field. As more minority businesses based on research are established, increasing numbers of minority researchers will join the ranks. With special government small business loan guarantees and other exclusive resources, minority entrepreneurs are at an advantage.

I wish you all the best of luck in your endeavors and hope that at the height of your entrepreneurial success, you give back to the communities and organizations that provided the resources that fed your business venture from its conceptual stage. *By Ralph Vacca, graduating senior at Baruch College*

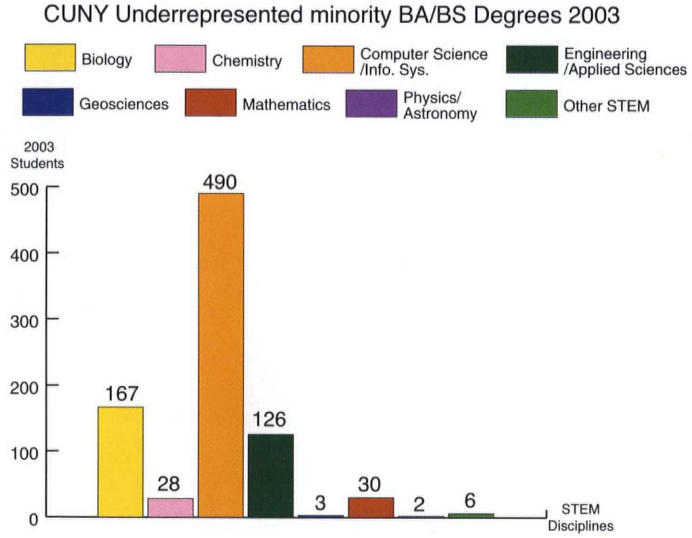
NEW YORK CITY LSAMP STATS

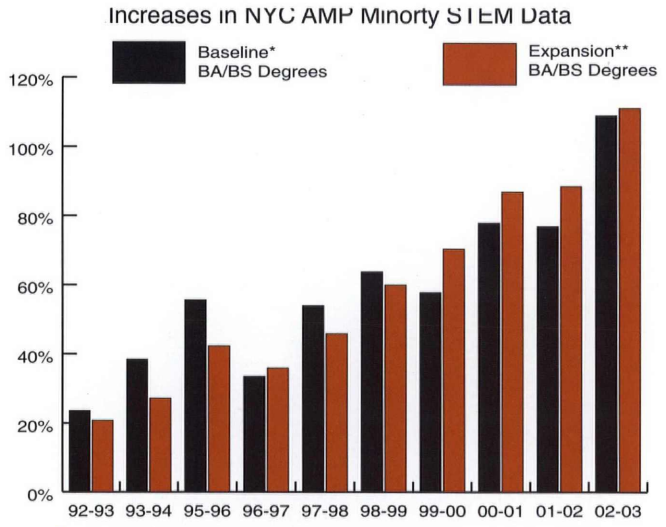


AMP Facts

DURING THE 2002-2003 ACADEMIC YEAR:

- *CUNY enrolled 18,858 students in NYC LSAMP institutionalized or restructured courses.*
- *Over 125 CUNY faculty mentors participated in LSAMP activities.*
- *204 LSAMP research scholarships were offered via CUNY institutional support.*
- *From inception, 308 LSAMP Scholars have earned BA or BS degrees.*





* Baseline: Brooklyn, City, Hunter, Lehman, Medgar Evers, and New York City Technical Colleges

** Expansion: Six Baseline Campuses; Baruch, Staten Island, Queens, and York Colleges

GOVERNING BOARD ADDITIONS

The Governing Board is chaired by the Chancellor of the City University, and consists of the Executive Vice Chancellor, the University Dean for Research, the President of the Research Foundation, and CUNY College Presidents, a student representative, a faculty representative. and representatives from Industry and Agency settings. The board meets once each semester and receives reports from the Project Directors, oversee general project operation, ensure that project objectives are being achieved, and provide direction and assistance in broadening the base of support for the Alliance among academic, industrial and governmental sectors of society.

Additions made to the LSAMP Governing Board are:
President Gail O. Mellow, LaGuardia CC
President Antonio Perez, Borough of Manhattan CC
President Cristoph Kimmich, Brooklyn College
President Ricardo Fernandez, Lehman College
President Edison Jackson, Medgar Evers College
President Frances Degen Horowitz, CUNY Graduate Center
Faculty Representative, Dr. Charles Watkins, City College
Senior University LSAMP Representative, Vice Chancellor for Academic Programs, Russel K. Hotzler

LSAMP SCHOLAR PATHWAY

KURT JAMES — OLUWATOSIN OGUNWUYI

Both Kurt and Oluwatosin graduated from A. Philip Randolph High School in 1999
Both are Electrical Engineering Majors
Both participated in the NASA/NACME Scholar and AMOCO Engineering Leadership Program
Both are scheduled to graduate in May 2003 and are preparing to enter Doctoral Programs in Fall 2003

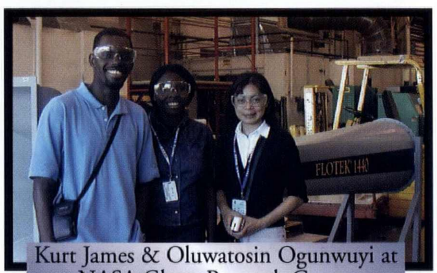
PRE COLLEGIATE ACTIVITIES

- Opportunities for Career Direction in Architecture, Construction, and Engineering (ACE) Mentoring Program
- Student Participating In Science and Engineering (SPISE) Program SPISE-Extended
- Science, Technology and Engineering Program (STEP)
- City College Summer Transportation Institute. (STI)
- The Alliance for Minority Participation (AMP) in Science, Technology, Engineering, Mathematics and Pre-college program.

While working in Dr. Parker's lab performing research in Civil Engineering, I realized that my passion was in Electrical Engineering. I also realized that City College was the ideal place to study because of the interaction with faculty members such as Dr. Parker as well as the support services at CCNY.
~Kurt James

My class work and participation in extracurricular activities at City College and Manhattan College helped me to focus my goals and gain insight on what engineering entailed.
~Oluwatosin Ogunwuyi

Both conducted research in the labs of Dr. Benjamin Liaw (Kurt) and Dr. Artie Walser (Oluwatosin) at City College School of Engineering



Kurt James & Oluwatosin Ogunwuyi at NASA Glenn Research Center

Kurt James recently published a review article in the Physical Review and also presented research at the American Physical Society Conference in Austin Texas, 2003.

My future goals include acquiring a Ph.D. in either Applied Physics or Electrical Engineering, and becoming one of the main pioneers in the promising area of Nanotechnology. I hope to become an entrepreneur in Nanoelectronics and establish more programs similar to STI that can be a catalyst to the success of the next generation of engineers.
~Kurt James

SUMMER 2000
Massachusetts Institute of Technology.
Design of a bioreactor to study the effects of micro gravity environment on tissue cultivation.

SUMMER 2001
NASA Glenn Research Center
Developing new radio frequency technology to facilitate the communication between astronauts and ground stations.
Dr. Roberto Acosta, Dr. Richard Lee, and Dr. Afroz Zaman

SUMMER 2002
NASA Glenn Research Center
Further development of new radio frequency technology to facilitate the communication between astronauts and ground stations.
Dr. Roberto Acosta, Dr. Richard Lee, and Dr. Afroz Zaman

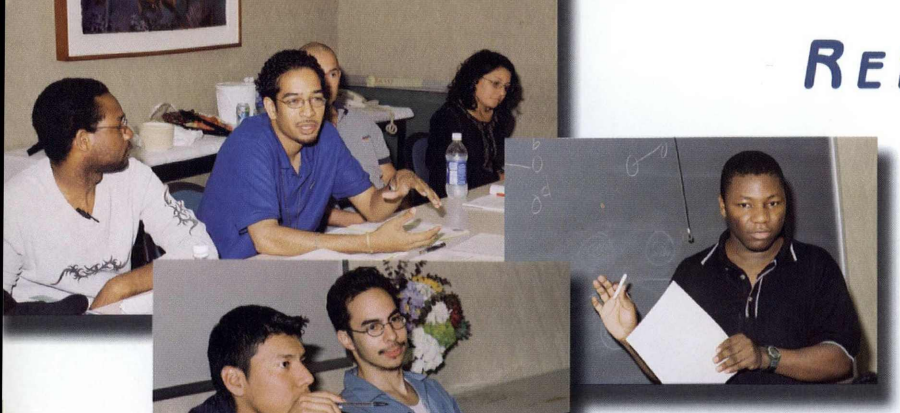
SUMMER 2003 AND CURRENT RESEARCH

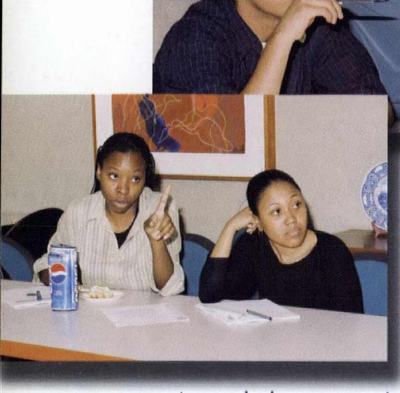
Dept of Physics
Study of a two dimensional layer of electrons within a Silicon MOSFET.
Dr. Myriam Sarachik, Physics

NOAA-Cooperative Remote Sensing Science and Technology Research Center.
Research on Atmospheric Correction and Analysis using Laser Optics.
Dr. Barry Gross, Electrical Engineering

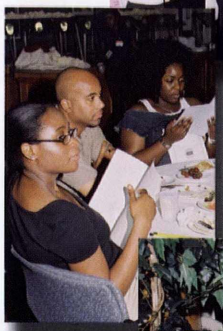
Reflections from a

Now that my summer research project has come to an end, my reflections are almost entirely of a positive nature...





I cannot say that I have changed the course of dinoflagellate research or discovered a new species. I have not created a new method for studying these microorganisms or changed the existing ones. I have however learned to effectively study these creatures with the methods that have been laid out before me. I have learned to function in a laboratory setting. I have learned how to properly drain scientific literature of all useful knowledge without having to memorize it word for word. Finally, the most significant result is that I am now able to make headway in the large and at first seemingly overwhelming project that may change the way we think of extinction, and the knowledge that I have yet to make my mark and am closer than ever to making it.



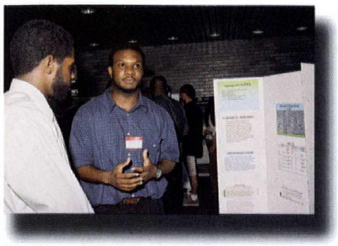
The LSAMP CUNY Summer Research component drew participation from 54 LSAMP Scholars.

At the New Mexico AMP 2003 Student Research Conference Las Cruces, NM • September 25-27, 2003, Kyrie Tinch won 1st place in the poster competition

Vice-president Sadie Bragg, BMCC confers with BMCC student Kyrie Tinch

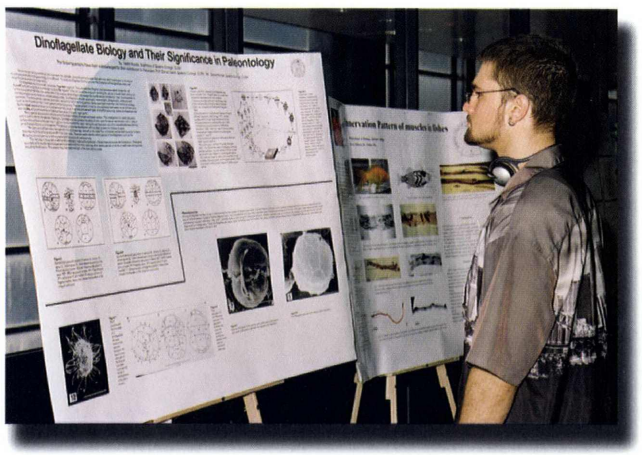
LSAMP Summer Scholar

By Vadim Acosta, Queens College, Geology



NASA Sharp participants from the NY State Research Initiative

The various meetings I attended allowed me to see just how close my seemingly far-fetched goals can be. The graduate student speakers and their chronological distribution through the grad school experience gave me a step-by-step guide. They did not make the experience sound easy or sugarcoat its reality. However, in doing so they did not discourage my enthusiasm. The recent PhD's and their obvious pride in their work made the light at the end of the tunnel seem brighter and clearer than ever.



In the end, the summer research program was time well spent. It was a great opportunity to immerse myself in the scientific community and do some networking. It was my first research project allowing me to see if I really did want to do this sort of thing for a living some day. It was a stepping stone on my path to a PhD. And most importantly it is something I realized I want to continue doing.

SOARS

SIGNIFICANT OPPORTUNITIES IN ATMOSPHERIC RESEARCH AND SCIENCE

PUTTING THE COMMUNITY IN MENTORING

Reprinted with permission from SOARS

"Community mentors are at the very heart of what the SOARS program is about," says Tom Windham. So what is a community mentor, and what does he or she do? Although the answers may vary in terms of specifics, the experiences of some returning mentors seem to share a common theme.

"The community mentor is a resource to help the protégés any way we can. It's a fairly individual thing because a community mentor's focus is on the individual," says Susan Cross, a four-time community mentor.

Steve Sadler and Joe Vanandel agree. Steve has been a community mentor for four years. He says, "A lot of it depends on the individual and their background. I see our role as being there to help the protégé integrate into the scientific community in a non-scientific way, as well as to help them navigate the corporate world." Joe, who has been a community mentor three different times, says that when introducing protégés to recreational and other activities in the area, he tries to accommodate their interest. "Activities have ranged from bicycling to the silent film series at Chautauqua." No matter what the approach, it's a contribution that makes a difference. Jack Fellows, a community mentor in 2000 and 2002, sums up the role this way: "Imagine yourself being young, possibly coming from a different culture, and relocating to a new city to work with world-class scientists for a summer. Community mentors help you, a SOARS protégé, overcome all these issues and, quite possibly, end up being a major reason why a protégé chooses a career in the sciences."

Rei Ueyama, who completed her first SOARS summer in 2002, credits community mentors with playing a unique and valuable role. "I think a community mentor should make the protégé feel comfortable in the working environment as well as in the Boulder community. I think peer mentors should do the same, like a more formal peer mentor. That is because peer mentors also have research to do and it's difficult to constantly look after a protégé. Not that community mentors aren't busy, but it's a different kind of relationship."

"For the first year, it's integral for the protégés to have someone who's going to be there when they want something else besides work," says Susan. Rei, who was one of the protégés, agrees: "She was like my friend who always looked after me and took great care of me. During the course of the program, she took me out to a Japanese restaurant for lunch because she thought I was homesick. We also met about once a week for lunch at the Mesa cafeteria."

The enthusiasm that community mentors bring to SOARS and their protégés is evident. When asked what keeps her coming back. Susan said, "It's the outstanding quality of these protégés. They're intriguing. They're very bright. I learned from them. And I feel like I'm helping."

Susan said that her personal approach to mentoring is to be very involved: "When new community mentors come in, they're often shy about how to get going. I consider it my job to be the person who makes the effort, because the first-year protégés are swimming along, treading water, and we are their community mentors; we are here for them."

"SOARS is based on a one-student-to-many-mentors model that is rather an exception in these types of programs, and the concept of a community mentor is an innovation- it's unique to SOARS," says Tom. He says that this motivation for incorporating community mentors into SOARS model was twofold. "First, it alleviates the burden on individual mentors. Volunteer programs run the risk of burning out their mentors. It's not really fair to burden research mentors with integrating the protégé into the larger social aspect of a lab or the Boulder community, so the community mentor can help with this element. Second, the community mentor serves as a formally identified person for the protégé to talk to about anything they want to discuss. Because the community mentor is not vested in the protégés research, there are more avenues for the protégé to blow off steam. It's a less formal relationship, offering the protégé a different way to acquire information, and also just to have fun."

The community mentor concept has evolved in the years since SOARS began. In the first years to the program, all protégés were assigned community mentors. In 2001, community mentors were assigned only to first-and –second year protégés, and following that year's program review, it was decided that in 2002 only first–year protégés would have a formal community mentor. "This was an example of how input from the protégés has influenced the shaping and delivery of the program," says Tom. "After a protégé's first year, the community mentor position became more absorbed into the peer mentor position. For returning protégés, there was more reliance on each other."

The 2001 program review added

continued on next page

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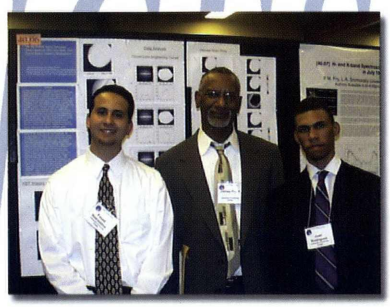
another facet to the community mentor's role. "We discovered that the community mentor was often a resource we were not capitalizing on, and represented Joe or Josephine Q. Public for the protégé. They provide an important opportunity for the protégés to discuss their research and its importance using ordinary language."

Community mentors try to attend the protégés practice talks and final colloquium, in addition to providing outlets for a break from the research. Steve lists a variety of activities he has done with his protégés, from once or twice a week get-togethers for lunch, to visits to his home on evenings and weekends, to golf. In seven years of the SOARS program, community mentors continue to play a special and critical role, albeit one that is not always easy to pinpoint. Says Tom, "Unlike our research or writing and communication mentors, a community mentor's contribution is neither obvious nor easy to infer." Difficult as it may be to describe, the community mentor's contribution is none-the-less a critical element and an enjoyable one for the people involved. Like Susan, Steve says that it really is the protégés that keep him coming back. "I learn from them. I marvel at their skills and talents. It's a very positive program."

by Amy Stevermer - SOARS

7th Annual DOE ESPSCOR & LS AMP Student Research Conference, New Orleans, LA
Nov. 21-23, 2003
(L-R) Vadim Acosta, Queens: Lydie Louis, CCNY; Dr. Claude Brathwaite, CCNY; Farah Nasir, Queens; Brandon Cameron, NYC College of Tech./City; & Dr. Neville Parker, CCNY

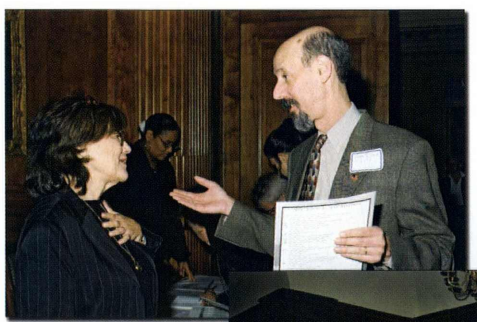
Lydie Louis won 1st place in the engineering poster session, Farah Nasir won 3rd place in the computer science poster session, Brandon cameron won 2nd place in the mathematics poster session

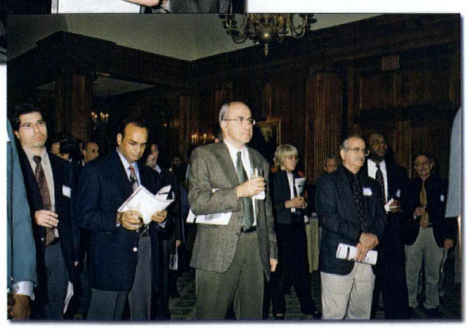


American Astronomical Society, Division of Planetary Sciences 35th Annual Meeting, Montery, CA
September 1 - 6, 2003
Fouad Nasraddine & Prof. James Frost, Laguardia CC
The Laguardia Community College research team presented new findings on the Hubble Space Telescope Observations in 1997

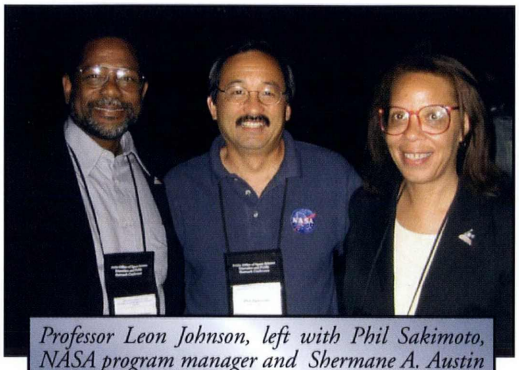
UNIVERSITY-WIDE MENTOR RECEPTION

A Mentor Reception Ceremony was held on October 16, 2003 to honor the faculty members working with LSAMP scholars over the last decade. Dr. Louise Mirrer, Senior Executive Vice-Chancellor for academic affairs and Richard Rothbard, President of CUNY Research Foundation, hosted the event.





NYC Space Science Research Alliance Moves into Phase II



Professor Leon Johnson, left with Phil Sakimoto, NASA program manager and Shermane A. Austin

The New York City Space Science Research Alliance (NYC-SSRA) is a multi-campus research center based in the City University of New York (CUNY), which facilitates the involvement of under-represented undergraduate students and faculty in NASA Space Science research and education. The Alliance is anchored by CUNY, the Hayden Planetarium of the American Museum of Natural History and the NASA Goddard Space Flight Center (GSFC). Other partners are the NASA Goddard Institute for Space Studies/Institute on Climate and Planets and the NASA Minority University Space Interdisciplinary Network.

Phase 2 Funding

The NYC-SSRA has been recently funded for a Phase II which will be for three years starting January, 2004. Funding is for $270,000 per year for 3 years and is from the NASA Office of Space Science Minority University and College Education and Research Partnership Initiative (MURCEPI). The focus of Phase II is to increase faculty and student (community college and senior college) research in Space Science. The goals of Phase II include: 1) assist participating faculty in developing new and enhancing existing collaborations on research related to NASA missions: MESSENGER, Cassini, MER, HST, New Horizons, etc, and provide support for research activities; 2) strengthen faculty research capabilities by creating a faculty preparation program, which will include workshops on tools needed for data analysis, 3) provide more undergraduate and graduate summer and academic year research opportunities at NASA centers as well as colleges and universities with NASA programs; and 4) increase greatly the number of under-represented students in the Space Science pipeline in order to help create a diverse Space Science workforce.

Major Accomplishments

The Alliance is a virtual Space Science Department which has: 1) created a Space Science Major in the CUNY BS Degree Program and created Space Science Concentrations on 3 CUNY campuses; 2) developed 15 new courses and revised 6 courses in Space Science or related areas; 3) created research opportunities for students (16 at NASA Sites such as GSFC, Jet Propulsion Laboratory (JPL), Applied Physics Laboratory (APL) at John Hopkins University and many more within CUNY); 4) initiated faculty development by attending national conferences and attending/co-hosting image processing and visualization workshops at South Carolina State University, City College, Medgar Evers College and Holyoke Community College, Massachusetts; 5) enhanced existing research (Evolution of Galaxies, Aerosols on Jupiter, Photometry of Near Earth Objects) and established new research (Supernovae in Lobes of Active Galactic Nuclei, Micro-Organism and Planetary Surfaces, RHESSI and Solar X-ray Emission, Asteroid Detection and Deflection) with an emphasis on recruiting community college faculty; 6) increased faculty and student presentations at national conferences (9 presentations); and 7) initiated recruitment activities with Open Houses and GSFC, APL Student Research Symposium at the Hayden Planetarium.

CUNY Partners and Faculty: Medgar Evers College (Leon P. Johnson, Shermane A. Austin, Efeanyi E. Ekejiuba, John M, Flowers, William C. Harris, Colley Baldwin) College of Staten Island and its Astrophysical Observatory (Irving K. Robbins, Charles Liu, Keith J. Rowan), City College of NY (Jeffrey Steiner, Neville Parker), LaGuardia Community College (James W. Frost, Byron Storck), Queensborough Community College (Donald E. Cotton, Dona V. Boccio, Tak D. Cheung, Sheldon Kaufman), Hunter College (Steve Greenbaum), York College (Martin Spergel, Tim Paglione), Hostos Community College (Humberto Canate), Borough of Manhattan Community College (Shana Tribiano), and Bronx Community College (Luis E. Montenegro).

External Partners: Hayden Planetarium (Neil deGrasse Tyson), Goddard Space Flight Center (James R. Thieman, Stephanie Stockman, James Harrington, Brian R. Dennis, Valerie Thomas, Carolyn Ng), Goddard Institute for Space Studies (Barbara Carlson, Michael Allison, Armando Howard, Carolyn Harris, Frank Scalzo), Holyoke Community College in Massachusetts (Bart Estes), South Carolina State University (Donald K. Walter), Boston University (Esther Zirbel), National Science Foundation (Chantale Damas), Dewey High School (Barry Fried), Manhattan Transition High School (Kevin Brathwaite) and MEC Middle College High School (Delroy Burnett).

INTERNS BOOST MESSENGER MISSION

The MESSENGER spacecraft serves as a backdrop for interns. (from left) Joseph Sullivan, Kenneth Brown, Alexander Torres, Richard Balcarran, Paula Washington, James Smith Jr., Vincent Davis, Marcelite Jenkins, Marcello Rodriguez, Amarilis Bueno, Gregory Pierce, Andres Terrazas, Ayanna Moses and Willie Caraballo.

Alexander Torres spent his 2002 summer as a typical college undergrad, traveling a bit and taking some high-level math courses. A year later, the soon-to-be senior at City College of New York had a front seat on a major NASA mission, monitoring power-system data for the APL engineers building the MErcury Surface, Space ENvironment, GEochemistry, and Ranging (MESSENGER) spacecraft.

Nothing like jumping from the classroom to the real world, right?

"At first it was daunting," says Torres, an electrical engineering major. "But as we got a few weeks into it and I felt comfortable with the system, it was more like, 'Oh, you want this type of information? I'll get it for you.' "

The MESSENGER mission got a boost from the talents of 14 college students in the Minority University-SPace Interdisciplinary Network (MU-SPIN), a wide-ranging NASA program of workshops, partnerships and other initiatives designed to train the agency's next generation of minority scientists and engineers.

The students, from schools in New York, North Carolina, South Carolina and Texas, sharpened their already formidable technical skills by working with APL experts in spacecraft integration and testing, mission design, mission operations, mechanical support and Web site management. The internships started in June and ended Aug. 8, 2003.

"It's been an opportunity to work side by side with top engineers," says Gregory Pierce, another City College of New York student, who helped develop animation of MESSENGER's planned flight to the planet Mercury. "You always read about finished projects in research papers or in magazines, but here you see how those projects come together bit by bit. When they give you a project and you do it well, that's tremendous for your self-confidence."

MESSENGER, a NASA Discovery Program mission to orbit Mercury, is scheduled to launch next spring. MU-SPIN is a MESSENGER Education and Public Outreach team partner.

For more information on the mission, visit messenger.jhuapl.edu. For more information on MU-SPIN, visit muspin.gsfc.nasa.gov.

By Mike Buckley , APL News – Summer 2003
Johns Hopkins University Applied Physics Laboratory

CUNY CONFERENCE

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FRIDAY, FEBRUARY 27, 2004

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Friday, February 24th, 2004
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Urban University Series Conference

April 23, 2004 *hosted by* Lehman College

The New York City Louis Stokes Alliance for Minority Participation in Science (NYC LSAMP) will be holding its ***7th Annual Urban University Conference*** on Friday April 23rd, 2004 at Lehman College of the City University of New York. The Urban University Conference Series serves to highlight the research work done by faculty and CUNY students involved in undergraduate and graduate research, serve as a networking event for other minority scientists and engineers, and as a forum for students to gather information on internships, graduate programs, and employment.

Lehman College was founded in 1931 as the Bronx campus of Hunter College. Established in 1968 as an independent college of The City University of New York and named for Herbert H. Lehman, the great New York Governor, U.S. Senator, philanthropist, and humanitarian. Lehman is a public, comprehensive, coeducational liberal arts college with more than 90 undergraduate and graduate degree programs and specializations. Lehman sits on a 37-acre tree-lined campus noted for its distinctive blend of Collegiate Gothic and modern architecture; 15 buildings include a Center for the Performing Arts, Art Gallery, and APEX, a world-class facility for sports and recreation.

Registration Deadline February 28, 2004

Ad Space

Ad space is still available in our Conference Program. Contact the office for rates and submission information.

Exhibitor Pricing

$500.00 per table

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For more information and to register, visit us at: http://nyc-amp.cuny.edu or call 212-650-8854

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