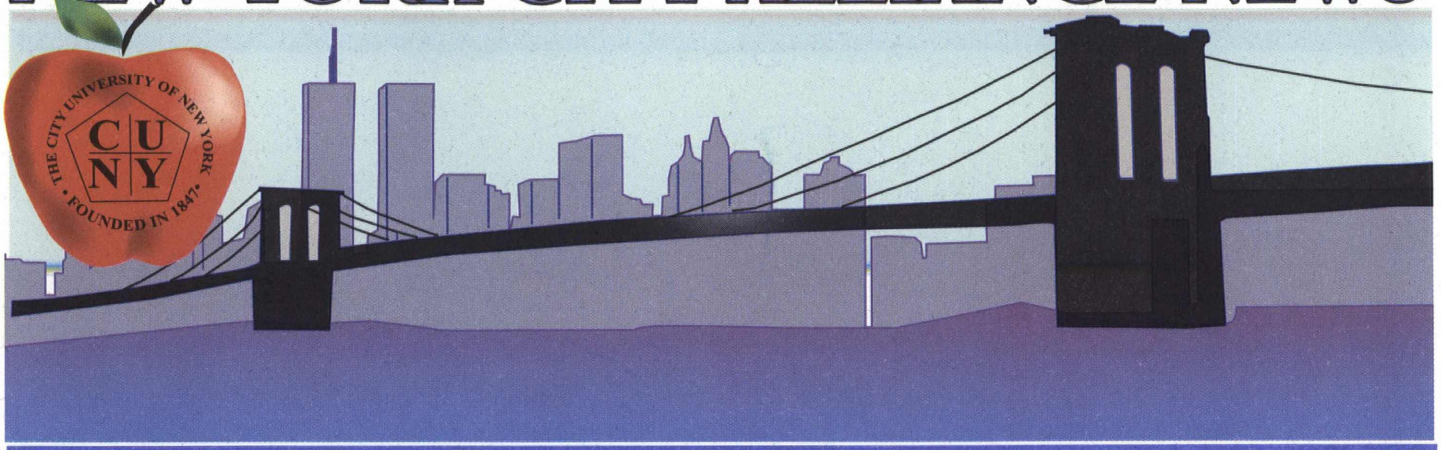
NEW YORK CITY ALLIANCE NEWS



VOLUME 7 ISSUE 2 FEBRUARY 2000

NYC LSAMP Facts

The total representation of Black and Hispanic faculty members in SMET disciplines at CUNY is about 12%. Approximately 67% of CUNY's students are non-white.

CUNY produces Black and Hispanic Ph.D.s at twice the national rate. It has committed to tripling the number of minority Ph.D.s it produces in SMET disciplines over the next five years.

The LSAMP Teacher Preparation Initiative placed 12 students in New York City teaching positions in 1998, 17 in 1999, and more students are being placed on a rolling basis.

INSIDE THIS ISSUE:

Building the Minority Professoriate, Thoughts from the Principal Investigator, Dr. Neville A. Parker

CUNY, which continues to fulfill its historic mission of educating New York's poor, is one of the nation's most important urban universities. Of its more than 194,000 students, some 67% are non-white. Across the university, there are 1,346 Science, Mathematics, Engineering and Technology (SMET) Department faculty members of whom 104 are Black and 52 Hispanic, a total representation of approximately 12%. Some 15,336 students are enrolled in SMET disciplines, of whom 8,591 belong to underrepresented minority groups. As we work to create the flagship environment envisioned by Chancellor Goldstein, it is important for us to ask ourselves if minority instructors are sufficiently represented in SMET disciplines. If we conclude that they are not, we must determine what strategies we can implement to build CUNY's minority professoriate.

For many of our students, the deck is stacked against success. At NYC LSAMP we often discover SMET talent in students who have been inadequately prepared in secondary school, and whom we must help bridge a knowledge gap so that they can go on to shine in the sciences. Economic difficulties and the challenges of tough neighborhoods are other barriers we help students overcome through learning centers, which give them a home away from home where they can study and access essential technology, and through mentoring, which provides one-on-one support and encouragement. It is important that the faculty comprise a significant number of minority instructors who have faced the same challenges as CUNY's students and who can serve as role models for success in SMET disciplines and in life.

I think that CUNY has two main areas of responsibility. First, it must commit to growing the pool of minority SMET faculty by encouraging talented SMET students to go into teaching at the K through 12 and university levels. This is a mission that NYC LSAMP has been fulfilling through its Teacher Preparation Initiative with some very gratifying results. Second, CUNY must constantly reaffirm its commitment to aggressive recruitment of minority SMET faculty. As such, we must:

- Convince students who have pursued graduate studies at CUNY to join the SMET faculty.
- Persuade CUNY students who have done graduate work elsewhere to return. Though they may have attractive offers elsewhere, we must appeal to their sense of mission, showing them the impact they can have on their own communities by teaching here.
- Look beyond New York to recruit minority instructors who hale from different parts of the country. NYC LSAMP is part of the National Science Foundation network. This gives us access to potential faculty members who have done top flight graduate work at Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), and Minority Serving Institutions (MSIs) under programs such as NSF's Centers for Research Excellence in Science and Technology (CREST), as well as at majority institutions.
- Reach out much more to the private sector. It has an enormous stake in develop-

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New York City Alliance News

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

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ing the scientists of tomorrow. We need start up funds for laboratories so that CUNY is an increasingly attractive alternative for the best and the brightest minority research scientists from industry as well as academia. We should look at instituting a program of sabbaticals from industry in which corporations support their minority scientists to teach for a year or more in CUNY's SMET departments.

As NYC LSAMP makes its way through Phase II, we cannot emphasize too strongly that building the minority professoriate is essential if we are to continue increasing the number of minority students who succeed in SMET disciplines to the baccalaureate and beyond. Please refer to "The Path to the Professoriate" on pages five to seven to read more about what is being accomplished at CUNY.

LSAMP Congratulates Dr. Stephen Providence

At this year's LSAMP holiday party, glasses were raised in a toast to LSAMP veteran Steve Providence who had just been awarded his Ph.D. in computer science by the CUNY Graduate School and University Center. Dr. Providence has been the activity coordinator at Lehman College since the Alliance's inception. Speaking of his doctorate he said, "It is a difficult task, but you can do it if you concentrate. Perseverance is key. The degree changes your life. You begin to see that you have been elevated to a level where you have a responsibility to the discipline itself and that you must uphold and represent all those things that mean professionalism and scholarship in your field. This entails doing research and adding to the body of knowledge. I hope that my work will be useful." When asked about his future plans, Dr. Providence cites his ambition to combine research and teaching. His immediate goal is to start publishing, and he is hard at work on a research paper with his mentor Dr. Victor Pan.

From left to right, Dr. Neville Parker and Dr. Stephen Providence

LSAMP in Action: A New Role for the Steering Committee

When the LSAMP Steering Committee met in December, its mission was to develop innovative and effective strategies to complete the institutionalization of LSAMP initiatives. The Committee, which consists of representatives of 16 undergraduate CUNY campuses, the Graduate School and University Center, and the LSAMP Project Directors and Administrator, is determined to use the remainder of Phase II to maximize the program's impact on SMET education at CUNY.

The group divided into three working committees to tackle the following components of the institutionalization issue: the

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The President's View: Thoughts on LSAMP from CUNY's College Presidents

Dr. Marlene Springer, College of Staten Island

Dr. Marlene Springer brings to CSI and to the LSAMP Governing Board the perspective of a seasoned administrator and distinguished scholar. Before assuming the CSI presidency in 1994, she served as Vice Chancellor for Academic Affairs at East Carolina University and Associate Vice Chancellor for Academic Affairs and Graduate Studies at the University of Missouri-Kansas City. She is very active in nation-wide educational organizations and holds leadership positions at the American Council on Education and the American Association of State Colleges and Universities. Dr. Springer earned a doctorate in English literature at the University of Indiana. She was Chair of the English Department at the University of Missouri-Kansas City and is widely published.

"At CSI," says Dr. Springer, "we are competing with private colleges for talented students. LSAMP is an enormous help with minority recruitment. The funds and opportunities it provides aid us in attracting the students we want." Dr. Springer sees recruitment as a key issue for the whole of CUNY. She is a strong proponent of the Honors Colleges as a way to enroll and retain top students who have many educational options. She also speaks of the importance of funded programs working in concert to maximize recruitment efforts. At CSI, LSAMP activities are correlated with STEP, CSTEP, and the Liberty Partnership.

Dr. Springer is committed to the concept of an educational pipeline in SMET studies. "In order to be successful, intervention must be long term," she says. "We should begin with sixth grade students, and we cannot expect change to happen overnight." She also points to the importance of increasing the number of well-trained minority teachers who can serve as role models for their students. When asked to name exemplary SMET programs, Dr. Springer points with pride to CSI's own Discovery Center which, for the past decade, has trained teachers from all subject areas in hands-on teaching methods and has drawn minority students into science education through a teaching model based on exploration. "On LSAMP's Governing Board we should be constantly aware of other SMET initiatives of national stature," she says. "Their best practices can be incorporated into the Alliance to make a fine program even stronger."

Dr. Marlene Springer, President of the College of Staten Island

Mentoring for 2000 and Beyond: Profiles of LSAMP's Super Mentors

Dr. Robert Engel, Queens College

Dr. Robert Engel has spent his entire teaching career at Queens College. Following a bachelor's degree from Carnegie Institute of Technology (1963), a doctorate from Pennsylvania State University (1966), and service in the United States Army, he arrived at Queens in 1968. He is a professor of chemistry and biochemistry, has served as Chair of the Chemistry Department and, for the past two years, has been Dean of Graduate Studies. Dr. Engel has also been a NATO Fellow at McGill University and a Senior Research Fellow at Rohm and Haas in Philadelphia.

Dr. Engel is enthusiastic about Queens College and its future under President Allen Sessoms. "The current administration is interested in science, in academic excellence, and in furthering the education and development of students," he says. "This focus on excellence has made me want to stay at CUNY," he continues, "and LSAMP is part of it." Dr. Engel credits LSAMP with providing students "real help" and says that he has been happy with every one of his LSAMP mentees.

Ph.D. student JaimeLee Iolani Cohen and her mentor, Dr. Robert Engel

Though he carries a heavy administrative load, Dr. Engel says that research must always come first. He is currently investigating intriguing chemical structures. "This project started as an adventure in chemical architecture with no thought of possible applications," he explains. "In the course of the research, we found that organic compounds which incorporate a large number of cationic sites in their covalent lattice have important applications as antibacterials, solubility enhancers, and modifiers of nucleic acids. This discovery has tremendous ramifications in the medicinal, agricultural, household, and cosmetic sectors."

Dr. Engel credits his LSAMP mentees with helping him balance his responsibilities thanks to their excellent performance in his laboratory. He speaks glowingly of his LSAMP graduate student, JamieLee Iolani Cohen, who is currently pursuing her doctorate in chemistry and who is part of a mentoring chain that allows him to expand the number of undergraduates working with him. Dr. Engel is enhancing

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Where Are They Now? The Accomplishments of LSAMP Alumni

Derek Skeete, Teaching at his Alma Mater

Derek Skeete is an LSAMP veteran. While an undergraduate at Medgar Evers, he tutored in mathematics and physics and served as the student representative on the LSAMP Governing Board. As one of the early LSAMP participants in research at NASA's Goddard Institute for Space Studies (GISS), he helped pioneer an educational collaboration which is now central to the Alliance. At GISS, he was part of a team investigating the distribution and composition of stratospheric aerosols in Jupiter's atmosphere.

After graduating from Medgar Evers with a degree in mathematical physics, Derek went on to Pennsylvania State University where he earned a Master's of Engineering in environmental pollution control. He is now back at Medgar Evers as a member of the environmental science faculty, teaching courses in groundwater pollution prevention and environmental law. "I hope to combine teaching with consulting," he says. "My immediate plans include a Ph.D. in civil engineering with an emphasis on water quality." Derek will pursue his studies at the CUNY Graduate School and University Center. "My interests have always been in earth science," he says. "Thanks to a strong background in mathematics and physics, I have been able to transfer into engineering. LSAMP has been instrumental in making my career path possible. My undergraduate mentors were Drs. John Gibbs, Frank Ragland, and Leon Johnson. These are ongoing relationships which are essential to me as I start my doctoral studies."

Walter Greigg, Returning to CUNY for his Ph.D.

Walter Greigg, who is at the beginning of his doctoral studies, is a 1995 honors graduate of Brooklyn College with a bachelor's degree in chemistry. While an undergraduate he participated in MARC (Minority Access to Research Careers) and in LSAMP, under whose auspices he served as a tutor in physics, chemistry, and mathematics and did research with Dr. Gary Mennitt. Walter's LSAMP project entailed using Nuclear Magnetic Resonance spectroscopy to verify the composition of organic compounds synthesized by a professor at the SUNY Health Science Center. While at Brooklyn, his main interests were the synthesis and analysis of organic compounds. He held two prestigious internships, one at Cornell, where he worked with Dr. Robert Oswald, the other at the University of Maryland, College Park, where his mentor was Dr. Cary Miller. He presented his research at joint MBRS/MARC conferences and symposia in Puerto Rico, Atlanta, and at various CUNY colleges. Walter's extra-curricular activities included reviving the moribund Chemistry Society, where he served as president, and being an active member of the National Black Students Science Organization, where he tutored and advised freshmen and sophomores on their academic and career paths.

Following his graduation from Brooklyn, Walter spent three years working for the New York City Department of Health as an Environmental Health Scientist/ Public Health Sanitarian. "Though I felt useful ensuring that USDA and FDA regulations were being observed, I missed the stimulation of study and research," he says. In February 1999, he returned to CUNY to pursue his doctorate in analytical chemistry. His current research, under the supervision of Dr. Malgorzata Ciszkowska, focuses on studies of conformational transitions of ionic biopolymers. He is supported by the Bridges to the Doctorate program. Walter looks ahead to a research and development job in analytical chemistry.

Maryam Abdur-Rahman, Pursuing a Doctorate at Rutgers University

Armed with an associate's degree in chemical technology from New York City Technical College, Maryam Abdur-Rahman is currently in the first year of her studies for a Doctorate in Pharmacy at Rutgers University. "At City Tech," she says, "I was a poster child for AMP and even served as the student representative to the LSAMP Campus Steering Committee." Maryam's involvement began when she was a student in the Workshop Chemistry program. "Group learning was essential in helping me understand General Chemistry," she says. "I got an A in the course, and then I became a tutor." LSAMP introduced Maryam to research. With Dr. Tony Nicholas, she worked on developing a concise method to synthesize strigol. With Dr. Pamela Brown, she used the microwave to synthesize acetyl salicylic acid (aspirin) starting from methyl salicylate. "The project I began with Dr. Brown is ongoing," she points out. "Other City Tech students are building on my findings."

When asked about the future, Maryam says, "My AMP experience showed me that I wanted to do research. I hope to spend my career synthesizing drugs, and I am particularly interested in oncology." She speaks of being inspired by the work done by Dr. Tony Nicholas with HIV. "Dr. Nicholas and Dr. Brown were a huge influence on me," she says. "They nurtured my confidence as a researcher, but, beyond that, they helped me develop the discipline and responsibility necessary to succeed in graduate school and in life.

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Ms. Cohen's training for the professoriate through Preparing Future Faculty, a program which draws its support from the National Science Foundation, the Council of Graduate Schools, and the American Chemical Society. Under its auspices, Ms. Cohen will attend the March, 2000 meeting of the American Chemical Society where she will present her research in the Organic Chemistry Division and the work she has done guiding undergraduate students in the Education Division. According to Dr. Engel, LSAMP support has been crucial in allowing JamieLee Cohen to take advantage of these opportunities.

Dr. Engel speaks of other outstanding LSAMP mentees. He cites Tessie October, who is pursuing biomedical research at the University of Washington Medical School; Jose Guitierez and Mike Innes, who are succeeding in industry; and current student Steve Castro, who will take part in the upcoming presentation to the American Chemical Society's national meeting in San Francisco. Dr. Engel's concluding word on his work with LSAMP students is "We're having fun."

The Path to the Professoriate

CUNY's Graduate School and University Center, which currently produces African American and Hispanic Ph.D.s at twice the national level, has just committed itself to tripling the number of minority doctorates it awards in SMET disciplines over the next five years. Thanks to a $2.5 million grant from the National Science Foundation, it is establishing the Minority Access/Graduate Networking in the Sciences, Engineering and Mathematics (MAGNET-SEM) project, designed to attract minority SMET students to CUNY and retain them in graduate studies.

In the context of this growing commitment to grooming minority Ph.D.s who will be leaders in research science, it is essential to strengthen the minority professoriate. CUNY and New York City's public schools need to expand the number of minority faculty members who can bring students up through the ranks and serve as role models who empower them to aspire to graduate degrees.

The following profiles of members of the CUNY SMET community, who are at different points in the faculty pipeline, exemplify the intellectual excellence and dedication to teaching which must underpin the University's efforts to increase the corps of minority SMET Ph.D.s.

Two Undergraduates Planning Careers in the Classroom

Beresford Kirton

A student in the CUNY BA/BS program, Beresford Kirton is combining the resources of his home campus, City Tech, with those of Brooklyn and Baruch for a double major in computer science and business administration. Beresford is set on a career in high school teaching. He has started his training in the LSAMP Teacher Preparation Initiative. This past spring, he spent one day a week as an assistant teacher at Brooklyn Technical High School and returned for the summer session. "It was very challenging," he says. "I got hands-on experience, and I developed the tools required to manage a class." He speaks highly of the educational psychology course he took with Professor Adam Abdullah at Medgar Evers and of the teaching methods course, Inquiry in the Science Classroom, given by Professor Ellen Goldstein at City College. "LSAMP," he says, "is starting me off in the right direction."

After he finishes his bachelor's degree, Beresford is considering the New York City Board of Education's Teacher Opportunity Program, which would help fund the graduate work he would like to do at Columbia University's Teachers College. "There is a huge need for science teachers," he says. "We must have people in the classroom who have a strong love of science and can communicate this to the students. We need people who are well qualified, and we need minority participation. We have to catch students early, and our high schools must be held accountable."

"We must have people in the classroom who have a strong love of science and can communicate this to students."

– Beresford Kirton

In addition to teaching, Beresford hopes to be an entrepreneur. His interest is in E-commerce, which fits nicely with the research he is doing under LSAMP auspices. With his City Tech mentor, Professor Joseph Guerci, he has been working on digital communications and the networking of computers via fiber optics.

Sonjae Wallace

It is hard to believe that at one point Sonjae Wallace was not sure that he wanted to go to college. Today, he is distinguishing himself as a chemistry major at York College and as a research assistant at NASA's Goddard Institute for Space Studies (GISS), where he is on the Forcings and Chaos team, which includes the Institute's Head, Dr. James Hansen. At GISS, Sonjae works with the General Circulation Model (GCM), which is software being developed to simulate and predict climatic episodes. He has studied the net cooling trend which has been observed over the Eastern United States

Sonjae Wallace

for the last fifty years, comparing it with simulations from the SI97 version of the GCM. Sonjae's research has helped attribute the net cooling to the weakening of winds coming from the Caribbean to the Northeast of the US. He is currently looking at wind anomalies in the new SI99 GCM.

Teaching and mentoring are an important part of Sonjae's undergraduate experience. At York, he has tutored in chemistry and math since his freshman year. He has just finished teaching an SAT preparation course which is part of Bridging the Gap, an initiative designed to foster links between the College and local high schools. At GISS, he mentors students from the Bronx High School of Science and the High School for Environmental Sciences. In addition, he teaches web development in the after school outreach program, Playing to Win – Harlem Live, which is a collaboration between Columbia University and the Harlem community.

Sonjae plans a career as a research scientist and university professor. He will be applying to graduate school in physical chemistry, because he thinks that molecular modeling carries the largest potential for the further development of science.

Young Faculty Members Combine Research Excellence and a Dedication to Teaching

Dr. Reginald A. Blake

"I owe an immense amount to my mentors," says Dr. Reggie Blake. "Dr. Winfield Sylvester found me as an under-

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graduate when I was a fish out of water, and he continues to nurture me." After completing his bachelor's degree in meteorology at City College, Dr. Blake set his sights on a master's in meteorology and physical oceanography. The courses he needed were in the City College catalogue, but no one was teaching them. Dr. Sylvester and Dr. Willard Pierson, whom Reggie Blake calls one of the fathers of modern physical oceanography, banded together to guide him through his studies. They volunteered their time to teach a master's level program so that an accomplished student could fulfill his academic dreams. Reggie Blake now holds a Ph.D. from CUNY in civil engineering with an emphasis on water resources. Most of his Ph.D. work was supported by CASI (Center for the Analysis of Structures and Interfaces at City College), and he did doctoral research at NASA's Goddard Institute for Space Studies (GISS), where he is currently a post-doctoral fellow. His main research interests are mesoscale meteorology, hydroclimatology, remote sensing of soil moisture, and climate change impacts. Dr. Blake is developing a wetlands model for the GISS GCM. He has authored numerous scientific papers and has presented his research at national and international conferences and symposia.

"Those of us in the African-American community who have succeeded academically have a great responsibility to give back what has been given to us."

– Reginald Blake

Reggie Blake has been teaching for over fifteen years. His students have ranged from the junior high school to the graduate level. "Our children are so far behind," he says, "they need people who care. Teaching is a giving of oneself and perhaps the noblest of pursuits. It must come from the heart. Those of us in the African-American community who have succeeded academically have a great responsibility to give back what has been given to us. We must find unique and innovative ways to inspire, motivate, and challenge our students no matter what

Dr. Reginald A. Blake

their GPA. If we can get them to believe in themselves and whet their appetites with an insatiable desire for knowledge, we can turn our community around. We need to link the learning experience to the larger arena of life. We must make it practical and relevant." In between his master's studies and his doctorate, Dr. Blake spent a year teaching in two New York City high schools, Erasmus Hall, one of the toughest schools in Brooklyn, and FDR. At CUNY, he has taught mathematics, physical science, fluid mechanics, meteorology, and study skills. He serves as a mentor to high school and college students in the NASA/GISS Institute on Climate and Planets.

Dr. Blake's mentoring is not confined to the academy. For over eight years, he has served as an organizer and tutor in a community program at his church, the Pentacostal Church of God in Brooklyn. He tutors junior high, high school, and college students in the sciences, history, English, and social studies, and prepares adults for the GED exam. "We all need an anchor and a stabilizing force so that we can develop," he says. "The Lord, my wife Sonia, my mother Neslyn, my siblings, my pastor, Bishop Edward E. Williams, and my church family have been my anchors and support in life and in my academic work.

DR. NEAL PHILLIP

Dr. Neal Phillip graduated from City College with a double major in chemistry and meteorology. He holds a master's in civil engineering, also from City and a Ph.D. in environmental engineering from the CUNY Graduate School and University Center. He has been involved in both teaching and research since his undergraduate days when he tutored in the Program for the Retention of Engineering Students (PRES) and did research in atmospheric chemistry under Prof. Edward Hindman.

Dr Phillip's civil engineering mentors were Drs. John Fillos and Vasil Diyamandoglu, under whose tutelage he had major responsibility on several externally funded environmental engineering projects. He has followed their example, both in entering the professoriate and in devoting himself to mentoring up and coming scientists. Dr Phillip's experience as a graduate student was rich and varied. He conducted research at the Center for Analysis of Structures and Interfaces (CASI) at City College; he worked under Dr Wilbert Hope in LSAMP's NASA Partnership Program at Medgar Evers College, where his research was incorporated into the curriculum of the Environmental Science Program; and he participated in the Goddard Institute for Space Studies (GISS) sun photometer project. Throughout, he mentored high school and college students. "While I was at CASI," he says, "one of my students, Kavin Du from Evander Childs High School, was a semi-finalist in the Westinghouse competition. That was an especially thrilling moment."

In 1999, following a post doctoral year, which included projects such as the characterization of wastewater in fourteen New York City water pollution control plants and a stint as a consultant for Savin Engineers, P.C., Dr. Phillip joined the faculty of Bronx Community College. He teaches chemistry and is playing a leading role in the College's new NSF-supported Environmental Technology Program. Dr. Phillip has developed a course in environmental law, which he is teaching this semester. He is working on a course in environmental laboratory analysis, which he intends to teach this coming spring.

When asked about his future, Dr. Phillip stated that he would continue to apply for grants from external sources to conduct research on environmental issues. "Not only does this expand my experience and make me a better teacher, it allows me to generate opportunities for my students in terms of research and internships. To me, that is an important part of mentoring." Dr Phillip would like to combine his commitment to the pro-

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fessoriate with consulting, "In environmental engineering, it is impossible to stay current if you are not active in the field," he says. "The best teachers I have had throughout my graduate education are the ones who have had experience outside the classroom."

A Senior Faculty Role Model Dedicated to the Professoriate

Dr. Daniel L. Akins

A distinguished researcher, mentor, and administrator, Dr. Daniel Akins is a leading member of the professoriate whose career has also spanned government and industry. In addition to his mission as a working scientist, he has made a personal commitment to increasing the number of underrepresented minority students who achieve the Ph.D. and do cutting-edge research and to improving access for minorities to careers in science, engineering, and mathematics.

Since 1981, Dr. Akins has been a professor of chemistry at City College and in 1996 was designated a Distinguished Service Professor of Chemistry. Following his doctoral studies at the University of California at Berkeley, Dr. Akins spent almost a decade in the academy, first at Florida State University and then at the University of South Florida, where he was associate professor of physical chemistry. He then joined the National Science Foundation, serving as program officer of the physical chemistry subsection of the Chemical Dynamics Program. Following his time in government, he spent two years in industry as a senior scientist at the Polaroid Corporation. When asked what made him return to the professoriate, he says, "I always wanted to have a role in shaping students and making a difference in the relationships between groups of people. Had I stayed in government, I would only have been able to do marginal science. Had I remained in industry, I would have become invisible and would not have been able to effectively influence minority scientists to compete. I did not want to be either marginal or invisible."

"I always wanted to have a role in shaping students and making a difference in the relationships between groups of people."

– Daniel Akins

For Dr. Akins, being a senior faculty member provides the best of all worlds. "I am able to be entrepreneurial and do frontier science," he says. "The only limit is my own creativity. I mentor students, and that makes the whole thing work for me." A widely published researcher, who has lectured extensively at home and abroad, Dr. Akins has brought more than $15 million in extramural research and student stipend support to City College.

Dr. Daniel L. Akins

Dr. Akins's current research interests include spectroscopic and dynamical investigations of spontaneous and nonlinear laser Raman scattering by dye molecules on metallic, semiconductor and vesicle surfaces; excited state dynamics and determination of photophysical parameters for cyanine dyes and donor-acceptor systems that involve electron-transfer reactions; Raman investigations of porphyrins in solution or adsorbed onto surfaces; and spectroscopic studies of biological tissues and herbs. He directs the prestigious Center for Analysis of Structures and Interfaces at City College (CASI) which exemplifies both his entrepreneurial bent and his commitment to encouraging excellence in minority scientists. CASI was started over a decade ago with funds from the NSF Minority Research Centers of Excellence program, now the CREST program (Centers for Research Excellence in Science and Technology). Today, it is an internationally recognized research center whose partners include Columbia University and the University of Rochester and whose funding derives from many sources. CASI, which includes components for high school students and teachers, undergraduates, and graduate students, has played a prominent role in City College's remarkable success in grooming minority scientists. For the 1997-1998 academic year, City College generated 10% of the nation's total number of minority Ph.D.s in engineering and 3% of the nation's total number of minority Ph.D.s in chemistry. Working towards this type of achievement is what keeps Dr. Daniel Akins engaged in the professoriate.

Mark Your Calendars for These Important Events

February 25, ***CUNY Conference on Science and Engineering*** at the Graduate School and University Center
March 10, ***LAESA High School Student Leadership Conference*** at City College
March 11, ***5th Annual Conference on Environmental Issues*** at Medgar Evers College
April 8, ***NASA in New York Day*** at City College
April 14, ***Urban University Series: LSAMP Conference*** at City College

CUNY Curriculum Awareness Days

April 7, York College (Queens campuses)
April 7, Lehman College (Bronx campuses)
April 8, College of Staten Island
April 15, City College (Manhattan campuses)
April 18, Brooklyn College (Brooklyn campuses)

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role of agencies and industry; research and teaching; and transitions.

The Agency/Industry Committee, chaired by Dean Diane Call of Queensborough Community College, endorsed the creation of an Agency Advisory Board to raise awareness of LSAMP accomplishments and develop new sources of financial backing. Other suggestions for growing agency and private sector support included: marshalling the support of LSAMP alumni and using them as presenters in the Urban University Series; recruiting retirees from SMET disciplines as LSAMP mentors and advisers; placing more students in corporate internships and jobs; and formalizing CUNY's relationship with successful private sector liaison programs such as INROADS.

The Research/Teaching Committee, chaired by Professor Joseph Muzio of Kingsborough Community College, is working to develop the pipeline to the Ph.D. Its recommendations include establishing an oversight body for issues pertaining to teaching and research and making research the link to careers in the private sector and education. Success in these efforts will depend on: offering competitive packages to attract students into SMET studies at CUNY and new Ph.D.s into the CUNY faculty; creating precollege and college level teaching opportunities for undergraduates which focus on pedagogy and curriculum development; improving mentoring; linking scientific literacy to social obligation; and expanding use of Internet and video technology.

The Transitions Committee, chaired by Vice President Sadie Bragg of Borough of Manhattan Community College and Vice President Marcia Keizs of Bronx Community College, advocated a critical reexamination of LSAMP's accomplishments in restructuring and articulation to ensure that the Alliance's impact in these areas continues when NSF funding sunsets. The committee proposed assessing the content of restructured SMET courses; determining the cost of restructuring; and studying the feasibility of replicating the LSAMP restructuring model with or without NSF funding. It suggested evaluating CUNY's successful SMET articulation agreements to determine how to establish confidence in transitions from discipline to discipline and college to college.

All three committees placed great importance on publicizing the Alliance's groundbreaking activities in restructuring courses, establishing undergraduate research, and building pipelines to the Ph.D. and careers in teaching and the professoriate. They saw greater visibility as essential to attracting the substantial, continuing funding necessary to implement the committees' recommendations and institutionalize excellence in SMET education at CUNY. The new working committee format received high marks from participants. Vice President Keizs found it "a more productive way to use Steering Committee time." "This is moving us to another level of conversation. It is helping us look at what we have done, create an institutional memory, and integrate our new Steering Committee members into the LSAMP experience, so that we can all build for the future," she said. For Project Director Dean Louise Squitieri, the format "brought new excitement to the Steering Committee and provided the opportunity for groups to work in depth on areas of concern to LSAMP." "As the committees recapped their discussions, we were acutely aware of the commitment we have made to students entering the LSAMP pipeline," she continued. "In that context it is essential that CUNY's colleges work together and that the University continue to support LSAMP initiatives so that they can be successfully institutionalized."

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