

ships as a means to produce

quantum changes and

change agents.

APRIL 2003

# **THE URBAN UNIVERSITY CONFERENCE 2003**

have discussed in this space a great number of elements related to the NYC LSAMP's mission to increase the participation of underrepresented minorities in science, technology, engineering and math (STEM). As we continue to wrestle with the challenge, we

should note that we will quantum require changes to propel us in the 21st Century on multiple trajecincumbent upon CUNY Centers, tories that will Institutes and Programs to develop, produce substanmodel or build on pre-existing tial changes to fill University-Community partneranticipated the shortfall. The Sixth Urban Annual **University Conference** 

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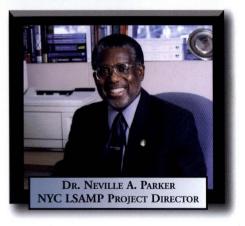
Series seeks to look at the role of CUNY Centers, Institutes and Programs in meeting this need by the initiation, formation and expansion of Community/University Partnerships in meeting the STEM workforce needs.

Dr. John Ruffin, Director of the legislatively authorized National Center on Health and Health Minority Disparities (NCMHD) within the NIH will deliver the keynote address. The three major goals of the Center (see page 2) will demand significant interactions and input from Minority Health Professionals, Colleges and Universities, and communities impacted. Ingredients in CUNY such as a number of NIH funded MARC, RISE, Bridges, MBRS, RCMI Centers at City College and Hunter, the Center for Biomedical Engineering, the NCI Cancer Center Partnership of City College and Memorial Sloan-Kettering include students and faculty poised to participate and play significant roles

in producing the required quantum changes. As a Minority Serving Institution (MSI), it is

I deeply believe that a sense of ownership of Science and Engineering must permeate the mindset of all of our students. It is this sense of ownership that move many of them to continue to persevere, and sustain themselves

on the road to becoming future scientists and engineers. Who will be doing research on Health and Disease Disparity and be the future biomedical scientists, if not students now in programs such as LSAMP and MARC, AND other students who have not yet completed middle and high schools? As a Minority Serving Institution (MSI), it is incumbent upon CUNY Centers, Institutes and Programs to develop, model or build on pre-existing University-Community partnerships as a means to produce quantum changes and change agents. We as Institutes, Centers, Professors and Program Directors must seek to make this a facet



of our evaluation. Our students, staff and faculty cannot be held separate (intentional or not) from that which will impact their community, and must become change agents within their communities.

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### NATIONAL SCIENCE FOUNDATION, LOUIS STOKES ALLIANCE FOR MINORITY PARTICIPATION

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# UU CONFERENCE

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Do we need a watershed event to produce quantum changes? I feel compelled to say yes. It was thirty plus years ago that a combination of watershed events allowed CUNY to address the issue of who the City University of New York would educate. That event produced minority scientists and engineers that can be found in virtually every segment of the STEM workforce in this country and I dare say world wide.

### QUESTIONS ON MY MIND

- How will the research, training and educational activities at the RCMI centers at Hunter College and City College impact the minority communities?
- What is the measurable impact of the over 6000 STEM graduates from CUNY 1992-2002 on the minority community?
- Will there be a role for training of minority scientists and students at the new CUNY Structural Biology Center planned for City College?
- How has the CUNY Institute for Transportation Systems impacted the minority community since its inception?
- Can Science, Mathematics and Engineering bring students closer to their communities?
- Can the community be a partner in developing research questions?
- How do we make community science an integral part of what CUNY Centers and Institutes do?
- Can we define 'the community'?
- Can we develop guidelines for the partnerships that can span all STEM disciplines and include the Behavioral Sciences ?

### NATIONAL CENTER ON MINORITY HEALTH AND HEALTH DISPARITIES (NCMHD)

While the diversity of the American population is one of the Nation's greatest assets, one of its greatest challenges is reducing the profound disparity in health status of America's racial and ethnic minorities, Appalachian residents, and other similar groups, compared to the population as a whole. The specific goals and purposes of the Center include the following:

- To assist in the development of an integrated national health research agenda, across disciplines, that reflects the current and emerging health needs of racial and ethnic minorities and other health disparity groups.
- To promote and facilitate the creation of a robust minority health research environment with

sustained funding for a wide breadth of studies - basic, clinical, and population research; studies on the influences of health processes; and research on the societal, cultural, and environmental dimensions of health - all aimed at identifying potential risk factors for disparate health outcomes.

• To promote, assist, and support research capacity building activities in the minority and medically under-served communities, focusing on research infrastructure development, faculty career development, and increasing the number of underrepresented minority students and students from health disparity groups with an interest in careers in biomedical and bio-behavioral research.

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# -LSAMP PROFILE by Jay Mwambe

## LEAH PRIDE



The route Leah Pride has mapped out in her quest to pursue a teaching and research career runs through CCNY's biochemistry program where she transferred to from New York City College of Technology last fall.

Out of the classroom, the senior works as a research assistant in the lab of CCNY Medical Professor Carol Wood Moore. Ms. Pride's research project, which she has presented at Louis Stokes Alliance for Minority Participation (LSAMP) poster sessions, is entitled "Functional Characterization of Genes and their Encoded Proteins that Protect Cells against Oxidative Damage." It can lead to a better understanding of DNA repair, which is of particular concern in cancer research," she says.

Ms. Pride's current work entails the localization, sequencing, and possi-

ble functional characterization of BLM3 and the BLM3-1 mutant genes. She is scheduled to graduate in June 2003, upon which she plans to enter a Ph.D. program in either biochemistry or biology. "I want to teach and do research in a cancer-related field," she says.

An AMP Scholar since 1998, Ms. Pride credits the Alliance for exposing her to the research aspect of science. "I didn't know what to do in terms of a career, but AMP helped me to fine tune my interests. "I thought of psychology, then pharmacology, before AMP helped me settle on biomedical research," she says. "AMP has also helped me become very proficient in presenting my work," Ms. Pride adds. An alliance of 16 CUNY Colleges and the CUNY Graduate Center, NYC-LSAMP's goal is to substantially increase the number of underrepresented minority students who pursue and graduate with Baccalaureate Degrees in Science, Mathematics, Engineering, and Technology.

A resident of Staten Island, Ms. Pride graduated from Port Richmond High School before attending New York City College of Technology.

# LSAMP MENTORS WIN AWARDS

### CAROL WOOD MOORE

Professor Carol Wood Moore, from the Department of Microbiology and Immunology of the Sophie Davis School of Biomedical Education, received this year's Outstanding Woman Scientist Award from the New York Metropolitan Association for Women in Science. Dr. Moore was chosen in recognition of her accomplishments in the lab, her publica-

### **GEORGE MYLONAKIS**

City College civil engineering Professor George Mylonakis, 34, has won the 2002 Shamsher Prakash Research award for young researchers in Geotechnical and Geotechnical Earthquake Engineering. He is the youngest person ever to win the international award, which is given out annually by the Missouri-based Shamsher Prakash Foundation. The prize honors specialists in Geotechnical Engineering and/or Geotechnical Earthquake engineering who have made significant independent contributions and show promise of excellence. The award includes a cash prize of \$1100.

A member of CCNY's Civil Engineering Department faculty

tions and her mentorship activities. Using a yeast model, her research focuses on how cells respond to oxidative stress and radiometric damage, as well as further studies to determine the genetic, cellular and biochemical controls of these cells. The results of this research have been used to increase the understanding of the treatments of several cancers including leukemias, lymphomas and fungal infections related to AIDS.

since 1997, Professor Mylonakis specializes in seismic soilstructure interaction, pile foundations, and geotechnical earthquake engineering. His research has been sponsored by the National Science Foundation, the Multidisciplinary Center for Earthquake Engineering Research and the Shimizu Corporation among others.

Professor Mylonakis has authored or co-authored over sixty scientific papers and reports over the past seven years. He received The City University of New York's performance Excellence award in 1999 and was nominated for the 2001 Research Award by the Japanese Geotechnical Society.

### NYC LSAMP Ph.D. Degree Recipients-Graduate School and University Center of CUNY

LSAMP Scholar	SMET Discipline	Degree Obtained
1		(Current Position)
Flora Chavez	Biology	Ph.D.
The second se		(Post Doctoral Study)
	Biology, Universidad Nacional, Peru	BS
Angel Pimentel	Biology	Ph.D.
		(Post Doctoral Study)
T Part Pa Mithing	Biology, University of Puerto Rico	BS
Charles Maliti	Biology	Ph.D.
		(Asst. Professor Bronx
	The second se	Community College)
	Biology, Kenyatta University, Kenya	BS
Mellania Pimentel	Biology	Ph.D.
	A CALL AND	(Post Doctoral Study)
	Biology, City College	BS
Jose Lorenzo	Chemical Engineering	Ph.D.
		(Air Products)
	Chemical Engineering, City College	BE
Jamie Lee Cohen	Chemistry	Ph.D.
the second second		(Asst. Professor Pace
	and the second second	University)
	Chemistry, Queens College	BA
Marco Morizan	Computer Science	Ph.D.
		(Asst. Professor Seton
		Hall University)
	Computer Science, Rutgers University	BS
Stephen Providence	Computer Science	Ph.D.
	computer science	(Asst. Professor North
		Carolina A&T)
	Computer Science, Brooklyn Poly Tech	
Claude Turner	Electrical Engineering	Ph.D.
Chaude 1 urner	Electrical Engineering	(Lecturer Medgar Evers
		College)
	Electrical Engineering, City College	
Ali Duale	Electrical Engineering, City Conege	BE Ph.D.
	Electrical Engineering	A STATUS AND A STA
	Electrical Engineering	(IBM)
Christopher Amo-Quam	Electrical Engineering	BE
	Electrical Engineering	Ph.D.
		(IBM)
A Street	Electrical Engineering, City College	BE

LSAMP at 1 Graduate education works.

allow AMP faculty, AGEP a with other gradu

LSAMP Facis

 Fourteen are currently pursuing MS degrees and two enrolled in doctoral program at the CUNY Graduate Center



In Their Own Words

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Anthony Clement, doctoral candidate in Mathematics Major research accomplishment in the last year I have made a major improvement in the solution to my thesis problem. However, it is a weak solution to the overall thesis theorem I have been working on. Major professional achievement in the last year In January 2003 and Summer 2002 I taught three courses. These courses were given to students who failed the CUNY Math exam. I've gotten a 100% pass rate for all courses. MS degree recipient January 200 Major research accomplishment in the Evaluation of the Economic Impact of busi into New Jersey from 1990-1999. We det variables that played the most imp role in the decision making proc Major academic accomplishment in the Completed my MS degree in Civil Engineering from the City College School of Engi Plans for 2003 I plan to start my professional career, go ba earn an MBA and possibly start my own

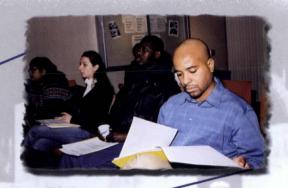
APRIL 2003

Eva Marin,

# he Graduate Level

ops during the summer and academic year nd RISE scholars to share their experiences ate and undergraduate students.

> From 1997-2002, thirty four of the selected activity coordinators received undergraduate degrees in STEM from CUNY, and twenty five have obtained Masters degrees from CUNY.



• For the 2001-2002 period, eight of the sixteen activity coordinators were NYC LSAMP Research Scholars or Peer tutors.

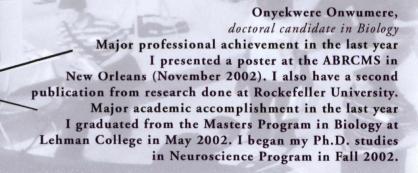
 Five completed MS degrees during the academic year 2001-2002.

NYC LSAMP Queens College Graduates 2000-2002 enrolled in Doctoral Programs

AMP Scholar	STEM Disipline	Graduate Degree Program	College/University
Heidi Zapatha	Biology	MD/Ph.D.	Syracuse University
Jacklyn Creque	Biology	Ph.D.	Cornell University
Marie Thomas	Chemistry	Ph.D.	GSUC of CUNY
Mark Chua	Biology	Ph.D.	Mount Sinai
Marylyn Gonzalez	Biology	Ph.D.	GSUC of CUNY
Miguel Chavez	Biology	MD/Ph.D.	SUNY Downstate
Nathan Stevens	Chemistry	Ph.D.	GSUC of CUNY
Shrimati Balram 🛁	Chemistry	Ph.D.	Univ. of Conn
Steve Castro	Chemistry	Ph.D.	GSUC of CUNY
Steven Rodriguez	Biology	Ph.D.	<b>Cornell University</b>

last year ess relocation rmined the rtant ss. last year (Transportation) eering.

k to school to business.



# ANNUAL BIOMEDICAL RESEARCH CONFERENCE FOR MINORITY STUDENTS (ABRCMS) ATTRACTS 2,600 BIOMEDICAL RESEARCHERS

The 2002 Annual **Biomedical** Research Conference for Minority Students (ABRCMS) marked a crucial milestone for the National Institute of General Medical Sciences: 40 years of research and 30 years of ensuring access to research. This milestone was celebrated by 2,600 biomedical researchers and students in New Orleans, Louisiana, November 13-16.

According to conference chair, Clifford Houston, Ph.D., represented at the conference were the scientific talents of the 21st century. "The audience was totally filled with intelligence and innovation. These students are going to make decisions that will

impact science and it is our goal to produce students that will meet the challenge of this decade," says Houston.

Annually, ABRCMS features the research of student scientists at the forefront of biomedical research and provides a unique opportunity for the students to professionally display their research and receive critiques and encouragement from peers and professional scientists.

This year commemorates the thirty years NIGMS has provided funding and support for underrepresented groups to conduct scientific research through two key points. Starting with a \$150,000 contribution to historically black institutions, NIGMS now budgets \$105 million for its Minority Access to and Minority (MARC) Research Biomedical Research Support (MBRS) programs.

Managed by the American Society for Microbiology this year's conference garnered the participation of 960 student

presenters, vying for recognition for their research in nine scientific categories. Like the nightly emcee, many participants were awestruck by the number of participants. "We met before and it was nothing like this," says a University of Puerto Rico student. The conference had an unprecedented level of participation and media coverage from local and national groups. Participants traveled from 225 universi-

> ties, 15 scientific associations and 20 federal agencies. Stories were published in Black in Higher Issues Education Magazine and Times Picayune, and on the Web sites of Hispanic Online, Collegian Black Magazine and Science NEXTWAVE. New Orleans news stations

Fox 8, WWL-TV Channel 4 (CBS), and WGNO-TV Channel 6 (ABC) broadcasted highlights and interviews of the conference. The Discovery Channel Canada interviewed student presenters and several conference winners. Among the 51 conference speakers were:

Nobel Laureates Thomas Cech, Ph.D., and Alfred Gilman, Ph.D.; MARC and MBRS alumni; John Ruffin, Ph.D., Director of the National Center for Minority Health Disparities; National Science Foundation Waterman Award Winner Erich Jarvis, Ph.D.; Francis Collins, M.D., Ph.D. of the

National Human Genome Research Institute; and Lydia Villa-Kamoroff, Ph.D., Vice Chancellor of Research at Northwestern University.

### **MULTIPLE SPEAKERS, ONE MESSAGE**

"Go out there and be masters in this new century." This statement made by former astronaut Bernard Harris, M.D. captures the continued message of the conference: for the students from under-

represented groups to excel in science and research and to make contributions to the body of scientific knowledge. With a recurring single voice, session speakers and exhibitors encouraged the students to maintain a commitment to the programs, continue scientific research, and give back.

The message began with Harris who, during the opening ceremony, told the group to dream big dreams and use their formal training to stretch and challenge themselves. Harris, the first black American to perform a space walk, says he dreamed of being an astronaut as a young boy. " You may train in a certain field like biochemistry ... but you may be asked to do more. You may be challenged by that field and in that challenge you will grow." he says.

During the conference anniversary celebration, Ruth Kirschstein, M.D., urged the audience to further the MARC/MBRS dream by meeting new goals of increasing the number of research grants held by minorities, the number of faculty members in sciences at majority institutions, and the

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number of minority scien-

review groups and advi-

Kirschstein served as

NIGMS having joined

others in establishing

minority programs.

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tists to serve on peer "You have the obligation to not only achieve your career and to reach it with excellence but to reach back and help pull someone else up."

-Louis Stokes

As a member of the House Representatives Appropriations of Committee, former Congressman Louis Stokes was a continued, significant aide in securing funding for MARC/MBRS programs. Stokes told the group to aspire for greater success, "You have the obligation to not only achieve your career and to reach it with excellence but to reach back and help pull someone else up."

continued on next page



STOKES ADDRESSING PARTICIPANTS AT THE ABRCMS CONFERENCE

In the scientific discussions, Cech, Villa-Komaroff, Jarvis, Collins, and others shared their individual research adding a "big picture talk" on science opportunities, the excitement of science, and the processes of scientific careers.

### NOBELISTS AND POTENTIAL NOBELISTS ADDRESS STUDENT RESEARCHERS

Erich Jarvis, Ph.D., may be one of the next Nobel Prize winners in science. If he is, he would be the second black scientist to receive the international recognition.

Because of this and his accomplishment in research, Jarvis spoke alongside Nobel Prize Thomas laureates Cech, Ph.D., and Alfred Gilman, M.D., Ph.D. on November 14.

"It's an honor," says the Duke University researcher.

"This is a high-impact opportunity for me to help people of my ethnic background." Jarvis isn't alone in his enthusiasm.

Cech and Gilman were equally enthusiastic about their involvement in this year's conference. The trio used the opportunity to encourage a broader representation in scientific careers. "Why should one part of the population be so underrepresented in such a stimulating, satisfying, and well-paid career?" Gilman asks rhetorically. Gilman, who received the award for helping discover the role of G-proteins in how cells manage signals to communicate, says undergraduate students who are conducting research are actually "auditioning a potential career" that they may thoroughly enjoy. Nobel Prize Laureate Cech is one who enjoys research having begun in junior high school. To the students he offered: "Try it. You might like it." He has been recognized for his research on RNA as an enzyme. Their session, "Nobel Prize Laureates and a Potential,"

was one of the scientific discussions occurring during the conference. The three panelists discussed their research and the path that led to them being internationally recognized.

For Jarvis, whose award-winning research examines the songs of hummingbirds, this conference has a particular meaning: he is a product of the MARC program and has benefited from opportunities like ABRCMS and MARC.

"I had attended such a conference and it helped me a great deal...At the time when I was an under-

scientists around who

were interested in us

underrepresented

groups becoming sci-

entists," he says. "They

are part of the success

we are having now." The

senior scientists were facul-

graduate there were senior "Go out there and be masters in this new century. You may train in a certain field like biochemistry ... but you may be asked to do more. You may be challenged by that field and in that challenge you will grow."

- Bernard Harris

ty mentors of Hunter

College's MARC Program. Jarvis also served on a panel with other MARC and MBRS Alumni. For each panelist, this student conference has a special significance, and their message would be one of motivation and guidance.

"I hope I added a sense of excitement and discovery one can get from science." says Gilman.

"Based on this experience they will determine their career," says Cech, "I'd like participants to gain a feeling of what a great career science can be."

According to these Nobel Prize laureates and Jarvis, it is through the students' participation in this conference that they experience the scientific process: identifying a research problem, conducting the research, writing on it, and reporting the outcome.

"Presenting is key," says Gilman. "Having opportunities to practice presenting research gets you over the scary part and headed down that right path."

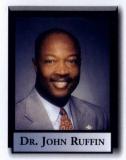
#### **STUDENTS MORE CONFIDENT**

Students who present at ABRCMS actively enhance themselves as biomedical scientists. They are exposed to discussions on significant research, and provided opportunities to meet leading researchers and role models. The conference provides a unique opportunity for the students to professionally display their research and receive criticism and encouragement from peers and professional scientists.

For Amber Siler-Knogl of Barry University, Miami Shores, Florida, conferences like ABRCMS have given her the opportunity to be exposed to cutting edge research. "The more exposure you have, the more confident you feel." she says. Siler-Knogl, a MARC student researching evolutionary psychology, says the conference is "excellent". "It is impressive to see so many confident students here." Students delivered poster and oral presentations in biochemical sciences, cell biological sciences, chemical sciences, environmental scientists, microbiological sciences, neurobiological sciences, physical sciences, physiological sciences, quantitative sciences, and social and behavioral sciences. The top presenters of each category received awards from national associations. Agreeing with many others on the impressiveness of the student presenters, Philip Ortiz of Empire State University says, "I have been struck by their academic acuity." Ortiz presented four awards sponsored by the American Society for Biochemistry and Molecular Biology. "This is a time that will never again be repeated," says Gates but the ASM Education Department plans to recapture the enthusiasm and participation at the 2003 conference in San Diego. Plans are underway for the 2003 ABRCMS scheduled for October 15th-18th, 2003 at the Town and Country Resort and Convention Center in San Diego California.

For more information visit www.abrcms.org or call 202-942-9228.

### THE URBAN UNIVERSITY CONFERENCE 2003



Dr. John Ruffin has devoted his professional life to improving the health status of minority populations in the United States and to developing and supporting educational programs for minority researchers and health care practitioners. In collaboration with the NIH IC directors, and various federal, state, community, and private-sector leaders, he has developed over 100 col-

laborative research studies and 30 research training programs.

On January 9, 2001, Dr. Ruffin was appointed as the first director of the newly established NCMHD at the NIH. In this role he leads a national program of: biomedical, behavioral, and social sciences research; research training; and dissemination of information designed to reduce and ultimately eliminate health disparities and health conditions that disproportionately affect racial and ethnic minorities and other medicallyunderserved populations. He manages the NCMHD's: staff; a budget in excess of \$158 million; research programs; and statutorily-mandated health disparities programs.

Dr. Ruffin is the former director of the NIH Office of

Research on Minority Health, the predecessor to the NCMHD. Prior to joining the NIH he was Dean of the College of Arts and Science at North Carolina Central University. A native of New Orleans, Louisiana, Dr. Ruffin received his baccalaureate degree from Dillard University and a master's degree from Atlanta University. He earned a Ph.D. at Kansas State University in systematic and developmental biology and then pursued postdoctoral studies at Harvard University.

Dr. Ruffin's life-long commitment to academic excellence and the promotion of numerous partnerships with government, private industry, and academic institutions to support minority health research and research training has earned him national recognition. He has received the: Samuel L. Kountz Award for his significant contribution to the cause of increasing access and participation by minorities in organ and tissue transplantation; NIH Director's Award; National Hispanic Leadership Award; Beta Beta Beta Biological Honor Society Award; and National Medical Association Award of Appreciation. Dr. Ruffin is also the recipient of a Special Recognition Award by the Secretary of Health and Human Services, and, most recently, the Presidential Merit Award.



New York City Louis Stokes Alliance

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