

## Mentor Profile

### Alfredo Quinones-Hinojosa, MD

WHEN ALFREDO QUINONES-Hinojosa, MD, associate professor of neurosurgery and oncology at The Johns Hopkins University School of Medicine and director of the Brain Tumor Surgery Program at The Johns Hopkins Bayview Medical Center, climbed over a chain-link fence between his childhood home of Mexicali, Mexico and Calixio, California, medical school was the last thing on his mind. "All I wanted to do when I came to the States was to make money to eat," he says. "Then I wanted to have a place to live."

Quinones-Hinojosa was 19 years old and spoke no English when he made that crossing, just over 20 years ago. He spent a little more than a year as a migrant farm worker. Then he spent a year working on a road crew, shoveling sulfur and fish lard onto railroad freight cars — backbreaking work that he says, in retrospect, "was nothing compared to neurosurgery residency."

By the time he began working on the road crew, Quinones-Hinojosa had started taking night classes at San Joaquin Delta Community College. He had a mentor there who helped him apply to and be accepted by the University of California, Berkeley. Quinones-Hinojosa excelled in all his math and science classes, and a mentor at Berkeley suggested he apply to medical school. Seven years after leaving Mexico, Quinones-Hinojosa began his studies at Harvard Medical School (HMS).

While at HMS, Quinones-Hinojosa attended the Biomedical Science Careers Student Conference. In February, he will be a keynote speaker at the 2010 conference (see page 4). "It was such an inspirational moment. Dr. [Joan] Reede was a great role model. Having mentors like Dr. Reede helped me mature," he says of his experience in medical school.

"I don't know if I chose neurosurgery or if neurosurgery chose me," he says. "I cannot think of a more beautiful organ than our brain. The brain is poorly understood and has always fascinated me." Quinones-Hinojosa is dedicated to studying and treating brain cancer. He is the principal investigator at The Johns Hopkins Brain Tumor Stem Cell Laboratory, which focuses on understanding the role of stem cells in the origin of brain tumors and the potential role they can play in fighting brain cancer and regaining neurological function. The lab is supported by grants from the National Institutes of Health, the American Society of Clinical Oncology, the Howard Hughes Medical Institute, the Association of American Medical Colleges Herbert W. Nickens Faculty Fellowship, the American College of Surgeons, the Brain Tumor Founders Collaborative, The Johns Hopkins Clinical Scientist Award, and The Johns Hopkins Pediatric Brain Tumor Foundation.

"The most beautiful organ in the body is attacked by the most devastating disease — brain cancer," he says. "When you see the suffering this disease brings to patients and their loved ones... I wanted to be part of healing and caring for that," he says. Teaching, he adds, "is my own way of touching many more lives. Instead of touching one person, I can touch 20."



ALFREDO QUINONES-HINOJOSA, MD

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## NEW ENGLAND SCIENCE SYMPOSIUM 2009 AWARDS

AT THE 2009 NEW England Science Symposium (NESS) in April, six students received Ruth and William Silen, MD, awards for oral and poster presentations and four received honorable mentions for poster presentations. Two students received Dana-Farber/Harvard Cancer Center Awards.

Steven D. Freedman, MD, PhD, presented the Ruth and William Silen, MD, awards. The three awards for oral presentations went to Binta Beard, ScD candidate, Harvard School of Public Health, (first prize, \$300); Bolaji Akala, MD/PhD candidate, University of Michigan Medical School (second prize, \$200); and Gregory Ford, PhD, postdoctoral research fellow, Morehouse School of Medicine (third prize, \$100). Poster presentation prizes were awarded to Pushpa Neupane, college student, Wesleyan University (first prize, \$300); Jonathan Abraham, MD/PhD candidate, Harvard Medical School (second prize, \$200); and Blythe Janowiak, PhD, postdoctoral research fellow, Harvard Medical School (third prize, \$100). Brandon Brooks, college student at Oklahoma State University; Arian Roman, college student at the Massachusetts Institute of Technology; Amanda Chilaka,

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## Student Profile

### Ebony D. Love

ARKANSAS STATE UNIVERSITY (ASU) sophomore Ebony Love first visited Boston last spring, when she came to present her research on the breakdown of cholesterol in microbes at the New England Science Symposium (NESS). She came back for the summer as an intern in the Harvard Medical School (HMS) laboratory of Timothy Mitchison, PhD. And she can't wait to come back.

The NESS "opened my eyes to so many different fields of biology and science in general," she says. She went back to ASU with the realization that "I don't have to wait until graduate school to do hardcore research."

Though her first visit to Boston was short, and most of the time was spent at the symposium, Love and her companions visited HMS and the rest of the university, across the river. She was impressed by everything she saw. Through contacts she made at the NESS, she arranged an internship in Dr. Mitchison's lab in the department of systems biology, where she was the only



EBONY D. LOVE

undergraduate intern. "I loved it. I cannot wait to go back up there," she says.

Before starting college, Love wanted to be a medical doctor, but says, "Since I started working in labs, I see the important role that researchers play." Now she might consider an MD/PhD program, which she first heard of at the NESS. Diabetes, particularly in children, is her main interest in medicine. "There is a lot of diabetes in my family, and I have a lot of friends who have it," she explains. "Pediatrics is also something I've always held dear." At the end of the summer, Love presented some of her diabetes-related research at the American Chemical Society's National Conference in Washington, DC (see related story, page 3).

Though the academic year is just starting, Love is already looking ahead, exploring internships and opportunities for next summer. "I'm one of those people who [is] go get 'em," she says. "If I apply early, I keep my options open." ■

### ALFREDO QUINONES-HINOJOSA, MD

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This caring physician, teacher and researcher is also a husband and father of three to Gabriela (10 ½), David (8) and Olivia (4). "They have their mother's beauty and all my passion for life and destruction," he says with a laugh, talking about his children's penchant for mischief. His parents and siblings live in San Diego now, and though he does

not get to see them often, he talks to them every other day.

Quinones-Hinojosa's work at Johns Hopkins has drawn some media attention, and he says reporters are surprised when they come to his house and find that it is only half-furnished. It's still a far cry from the trailer he lived in when he first came to this country. ■



## Student Profile

### James T. Shelton

WHEN JAMES SHELTON TRAVELED from Arkansas to Boston last spring to attend the 2009 New England Science Symposium (NESS), “I thought it was going to be like a lot of other conferences, with a lot of undergraduates and PhD candidates,” the Arkansas State University (ASU) student says. But he was surprised to meet several medical students among the attendees — and even more surprised to learn about the MD/PhD track some of them were following.

Shelton learned about the event — where he presented his research examining different sugar compounds as they relate to diabetes — through his mentors at school. Before he came to the NESS, Shelton, who plans to graduate from ASU in the spring of 2010 with a BS in chemistry, was deciding between medical school and a PhD program. Since learning that it is a possibility, he is now also considering combining the two. If he pursues a straight PhD, he says



JAMES T. SHELTON

he will probably study organic chemistry because it can be applied to so many different fields. If he goes into medicine, he says he would like to focus on cardiovascular disease, likely influenced by the fact that he has been diagnosed with hypertension.

This past summer, Shelton was back in Massachusetts, at the Woods Hole Oceanographic Institute, on an internship through the Partnership in Education Program. He studied soil respiration in several seaside locations throughout the state. “I’m keeping a broad perspective, so I’ll know what I want to study in grad school,” Shelton says. Before returning to ASU, Shelton presented more of his

diabetes-related research at the American Chemical Society’s National Conference in Washington, DC (see related story, page 2).

This student researcher with a promising future has been fascinated by science “ever since I was little. I was always interested in what’s behind things.” ■

poster presenters received certificates of participation.

The 2010 NESS will take place on February 28 at the Joseph B. Martin Conference Center at Harvard Medical School. Abstracts should be submitted by postdoctoral fellows; medical, dental and graduate students; postbaccalaureates; college and community college students (particularly African American, Hispanic and American Indian/Alaska native individuals) involved in biomedical or health-related scientific research. Deadline for abstract submission is December 1, 2009. To submit an abstract and to register, go to [www.NewEnglandScienceSymposium.org](http://www.NewEnglandScienceSymposium.org). ■

## POSTDOCTORAL FELLOWSHIP AND INTERNSHIP OPPORTUNITIES

Novartis Institutes for BioMedical Research, Inc.

NOVARTIS INSTITUTES for BioMedical Research (NIBR), based in Cambridge, Massachusetts, the global research organization for Novartis committed to discovering innovative medicines to treat diseases with high unmet medical need, has several programs that offer scientific training and exposure to drug discovery research.

NIBR’s Presidential Postdoctoral Program, which was ranked sixth in *The Scientist’s* “2009 Best Places to Work for Postdocs” survey, offers excellent training and opportunities to perform interdisciplinary research. Fellows design their own research projects and work with two mentors — a senior NIBR researcher and a faculty member from an academic institution. Fellows are expected to publish their work in peer-reviewed journals and present at international scientific meetings. They also have regular opportunities to present their work within Novartis and to interact with NIBR scientific leaders.

Fellows are appointed for three-year terms and may conduct research in Cambridge or

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### NEW ENGLAND

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master’s candidate at Northeastern University; and Lincoln Muhoro, master’s candidate at Clark University, received honorable mentions for their poster presentations.

Karen Burns White presented the Dana-Farber/Harvard Cancer Center Awards. E. Lorena Mora-Blanco, PhD candidate at Harvard Medical School, received the \$300 oral prize. Maria Baquero, PhD candidate at Yale University, received the \$300 poster prize. In addition to the certificates given to the recipients of the awards, all oral and

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## Save the Dates

### Career Development Series

Wednesday, October 7, 2009, 3:00–7:00 p.m.  
Harvard Medical School, Gordon Hall —  
Waterhouse Room

Federal Funding Opportunities: NIH, Intramural  
and Extramural Programs, AHRQ, NSF.

For physicians in postdoctoral training, junior  
faculty, and fellows (research and clinical)

### Biomedical Science Careers Student Conference

Friday, February 26, and Saturday, February 27, 2010  
The Westin Copley Place, Boston

For postdoctoral fellows; medical, dental, and grad-  
uate students; college and community college stu-  
dents; postbaccalaureates; and high school seniors  
and juniors. For further information, please contact

Lise D. Kaye at [lise\\_kaye@hms.harvard.edu](mailto:lise_kaye@hms.harvard.edu) or  
(617) 432-0552.

### New England Science Symposium

Sunday, February 28, 2010

Joseph B. Martin Conference Center at Harvard  
Medical School, 77 Avenue Louis Pasteur, Boston

ABSTRACTS DUE: DECEMBER 1, 2009

For information and to submit an abstract, go to  
[www.NewEnglandScienceSymposium.org](http://www.NewEnglandScienceSymposium.org).

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## OPPORTUNITIES

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at other NIBR sites, including Basel, Switzerland; Horsham, United Kingdom; Shanghai, China; or Emeryville, California. There are approximately 100 fellows globally, with nearly 40 in Cambridge.

NIBR also offers The Scientific Internship Program (from June to August) that combines practical laboratory research with educational components. There were 40 interns in the paid, 40-hour-per-week program this past summer. Depending on their strengths and areas of interest, interns are placed in laboratories that focus on specific disease areas or new technologies. To be eligible, students must have completed at

least sophomore year of college but not a master's degree program.

The educational components of the program include:

- Career Panels, which give students opportunities to engage with professionals from a variety of scientific fields who provide insights into different career paths
- The Drug Discovery Seminar Series, where leaders from the organization present scientific overviews on research within NIBR and the drug discovery process
- The Scientific Journal Club, where students read and present to peers assigned scientific publications

- Poster Sessions, held at the end of the program, where students present their laboratory research to the organization

NIBR recently piloted a Diversity Scientific Internship Program, creating opportunities for underrepresented minority groups in science. Due to its overwhelming success, the organization plans to expand the program next year.

All programs are highly competitive. Students who are selected demonstrate a passion for science and an ability to thrive in a team-oriented, collaborative and results-driven organization. For more information or to apply for any of these programs, go to [www.nibr.com/careers](http://www.nibr.com/careers). ■