

# K-12 Newsletter

Published by the Minority Faculty Development Program of Harvard Medical School — Spring 2002



Students examine "Stan"

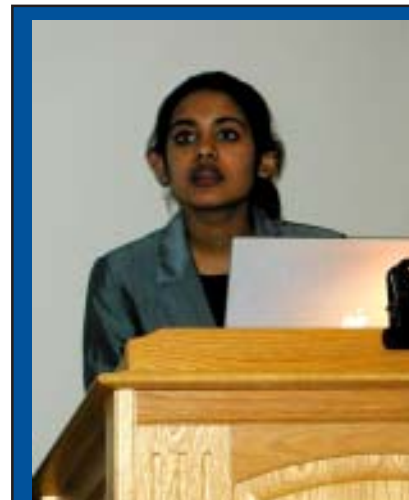
## *Junior Science and Humanities Symposium*

by Faye Holmes

What could possibly convince 200 teenagers from Massachusetts and Rhode Island to give up their weekend? Science of course! The 2002 Southern New England Junior Science and Humanities Symposium (JSHS) was held at Harvard Medical School (HMS) on April 5<sup>th</sup> and 6<sup>th</sup>. This is the 6<sup>th</sup> year that HMS has hosted this two-day event that brings together middle and high school students for presentations, panel discussions, and site visits to HMS-affiliated hospitals.

JSHS, sponsored by the United States Department of Defense, seeks to recognize outstanding high school students for their research in the fields of science, engineering, and mathematics. The goal of the symposium is to encourage student research and to expose students to the wide variety of career opportunities in the sciences. Ten oral presenters were chosen to showcase their work, and to compete for a \$4000 scholarship and the chance to go to National JSHS in San Diego, California. Research topics ranged from the elimination of oxidative browning, to a comparison of condorcet voting methods.

Keerthi Sugumaran, a senior at Lexington High School, won top honors for her research entitled "Prevention of Oxidative Browning – Biochemical Characterization of a Novel Inhibitor". Keerthi will attend Bowdoin College in the fall and hopes to go into biotechnology or patent law. Joining Keerthi at Nationals will be Orit Shamir also of Lexington High School, Karen Tam from Newton Country Day, Adam Rago from Falmouth High School, and Justine Nagurney from The Winsor School. Once there, Keerthi will compete for an additional \$16,000 scholarship and a trip to the London International Youth Science Forum.



Keerthi Sugumaran—  
Lexington High School

## *A Letter to the "Mentoring for Science" Program*

by Dayshel Turner

My experiences with the Harvard program have been excellent. The mentors were great. Working with you and others has been breath-taking. If any other students have the chance to work with this program, they should take that chance. They will experience something that will change their lives.

When I started Mentoring for Science, we did so many different experiments. We cut open a sheep brain. We also made our own experiments. One experiment I did was to form my own bacteria. Looking at the different bacteria that grew was amazing. Not only did we do science, we used math. Math helps measure the amount of fluids to put in or on different materials.

I love this program. I hope to stay with this program for many years to come. I have made many new friends. I have also met doctors that can help me accomplish my goal to become a doctor. Thank you all for your help. You have changed my life for the better.



## *New Research Opportunity for Students*

Dana–Farber/Harvard Cancer Center is launching a new program that provides exciting research opportunities for high school and undergraduate students. The Continuing Umbrella of Research Experience (CURE) program is modeled on the highly successful **Project Success** program sponsored by Harvard Medical School. Beginning this summer, CURE will place students in cancer research laboratories where they will gain hands-on science experience, work together with scientists and researchers, and use state-of-the-art technology. CURE provides long-term mentoring relationships and career development guidance. Students who are accepted into the CURE program participate for two years. To be eligible you must be at least sixteen years of age. Interested students should contact Karen Burns White, Assistant Director for Minority Initiatives, at 617-632-3244 or [karen\\_burnswite@dfci.harvard.edu](mailto:karen_burnswite@dfci.harvard.edu).

## *Important Scholarship Information for Students*

Millions of dollars in scholarships are not awarded each and every year because students do not apply. Below are the names and Web sites for available scholarships. It is never too early to research scholarship opportunities!



**ARMY ROTC Scholarships** (for Historically Black Colleges) [www.usarotc.com](http://www.usarotc.com)  
Students must enroll in the Army ROTC.

**Arts Recognition and Talent Search Awards** [www.artsawards.org](http://www.artsawards.org)  
These awards are granted to high school or college students (17, 18 years of age) who show talent in dance, voice, music, art, photography, jazz, visual arts, writing, or other creative areas.

**Coca-Cola Scholars Scholarships** [www.coca-colascholars.org](http://www.coca-colascholars.org)  
Awarded to “scholars” with academic, leadership, and talent qualities.

**Gates Millennium Scholarships** [www.gmsp.org/SOW4](http://www.gmsp.org/SOW4)  
The Gates Millennium Scholarship promotes academic excellence and provides an opportunity for thousands of outstanding students with significant financial need.

**Intel Science Talent Search** [www.sciserv.org/sts](http://www.sciserv.org/sts)  
Applicants must present a scientific research project.

**Kodak Scholarships**  
[www.kodak.com/US/en/motion/programs/student/scholarship.shtml](http://www.kodak.com/US/en/motion/programs/student/scholarship.shtml)  
For those studying film/cinematography at U.S. colleges.

For an extended listing of scholarship links, visit  
[www.mfdp.med.harvard.edu/k12/links](http://www.mfdp.med.harvard.edu/k12/links)

## *HPPI Weekly Electronic Newsletter Now Available*

The Healthy Professions Partnership Initiative (HPPI), sponsored by a grant from the Robert Wood Johnson Foundation, provides funding to organizations that improve health and education opportunities for young people in their local communities. HPPI Digest, a weekly e-mail newsletter created by the partnership, is now available to anyone interested in receiving information about: K-12 grade health and education issues, scholarship and funding opportunities, programs for minority or underprivileged students, and community based education. Information: To subscribe, Ella Cleveland, AAMC, [ecleveland@aamc.org](mailto:ecleveland@aamc.org)

## *Teachers Attend the 2002 Mini-Sabbatical*

*by Emily Rickards*

What is a sure way to make a group of teachers conscious of every breath they take? For the seventeen teachers who attended the **Harvard Medical School (HMS) Teachers Institute Mini-Sabbatical**, it was spending three days discussing asthma, influenza and infectious diseases. These seventeen teachers, from Boston Public Schools and several area parochial schools, worked in partnership with scientists, educators and physicians of Harvard Medical School and affiliated hospitals to explore the ways in which case-based learning can be used in middle and high school classrooms. The focus of the workshop was a case called “Tina’s Tale”. Tina falls ill, and it is up to the teachers to decide what is wrong with her. As they explored the case, teachers completed laboratory exercises, attended lectures and interacted with their peers to generate and refine their diagnoses.

This year is the eighth year that the Harvard Medical School Teachers Institute, with funding from Howard Hughes Medical Institute, has sponsored a professional development workshop for science teachers.

The goal of the Teachers Institute is to provide teachers, and thus students, with current knowledge in the field of science. The hope is that teachers will bring information from the workshop back to their classrooms and encourage students, minority students in particular, to pursue careers in science and medicine. Case-based learning, used with Harvard Medical School students, can be a wonderful tool to engage learners of any age in science content.

Highlights from this year’s workshop included a vivid presentation concerning the effects of asthma on children’s lives by Dr. Michael Rich from Children’s Hospital, and a visit with Dr. George Taylor, the Head of the Department of Radiology for Children’s Hospital. While teachers had the opportunity to talk with HMS professors and physicians, they also had the opportunity to learn from the most valuable source of information regarding education—their peers. Teachers shared ideas for activities that relate to Tina’s Tale with each other, and discussed implementing case-based learning with teachers who attended the Mini-Sabbatical in previous years and who have successfully used cases in their classrooms.

At the end of three days, teachers departed the workshop laden with a kit of materials for use in their classrooms, and with a new appreciation for the ways in which their bodies function. Tina recovered from her illness, and if all goes well, she will be entering the classrooms of a group of very dedicated teachers in the near future!



*Mini-Sabbatical  
Mentor Anne  
Nicholson-Weller  
and Teacher  
Fellow Carolyne  
DeVore Parks*



### *Teacher Fellow Receives Award*

Charity Cochran-Murphy, a 2001 Harvard Medical School Teachers Institute Teacher Fellow, recently received an “Above and Beyond Award” from the Massachusetts Software & Internet Council. Above and Beyond Awards seek to recognize best practices in the teaching of math and science in at the middle school level. Charity Cochran-Murphy was one of twenty teachers across the state to win the Award. Winners receive a \$1,000 grant for classroom use and a plaque for his or her school. Congratulations Charity!

For more information on the Massachusetts Software & Internet Council, visit their Web site at [www.swcouncil.org/educfound.stm](http://www.swcouncil.org/educfound.stm)

## *Program Preview—Project Success*

**Project Success** is a summer internship program that runs for 8 weeks, from July through August. Students participate in paid “hands-on” research positions. The program also includes a summer discussion series, seminars with researchers and physicians, site visits to hospitals and biotechnology firms, computer training and development of writing and speaking skills. Each student is assigned a mentor and research advisor who provides guidance and career counseling. The goal of **Project Success** is to identify, recruit and nurture talented students, particularly minority and/or disadvantaged students, interested in pursuing biomedical careers. For more information, visit our Web site at [www.mfdp.med.harvard.edu/k12/programs/](http://www.mfdp.med.harvard.edu/k12/programs/) or contact Faye Holmes, Project Coordinator for Student Programs, at 617-432-4697.

### SUMMER PROGRAM SCHEDULE

June 10 - August 16, 2002

**Health Policy Summer Program (HPSP)**

July 2 - August 8, 2002

**SAT Prep**

June 24 - August 16, 2002

**Project Success**

July 22 - August 9, 2002

**PRISM Math & Science Summer Camp**

#### **K-12 Newsletter—Spring 2002**

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