

# CLEAN AIR NOW! NEWS

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Editor, Virginia Field

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President, James Provenzano

## **SAM HUANG, PH.D** **LOCAL ARTIST AND BIOLOGY PROFESSOR HONORED**

*Sam Huang, Ph.D received the Norton Younglove Clean Air Award at the General Assembly meeting and dinner of the Western Riverside Council of Governments on June 30, 2005. Dr. Huang is a CAN member and former Board member and a long time friend of Dr. Robert Zweig, one of CAN's founders. Sam was recognized for his many years of activism in calling attention to environmental issues in his teaching and his art.*

Sam Huang's first teaching assignment at Riverside City College in 1974 was a course in Ecology and that was when he met Dr. Robert Zweig, who served as his mentor for the next 25 years. With Dr. Zweig's help, Sam was awarded a grant from the College to create a mural that could be used in the teaching of Ecology. That 11' x 55' mural which covered one wall of the Life Science Building depicts various air, water and other pollutants in our environment plus 105 organisms identified as endangered or extinct. The mural was used in the teaching of Ecology as well as Health Science for over 25 years and it is still intact after 30 years

In 1988 Sam was awarded a commission by the University of Miami to create a mural for the International Hydrogen Conference being held in Moscow, Russia that year. That 5' x 16' mural depicts pollution-free cities of Riverside, California and Kiev, in the Ukraine because of the alternative fuel, hydrogen. Today, the mural is hanging in the Atomic Energy Commission Building in Moscow, Russia.

In 1981 Dr. Zweig and Sam worked on hydrogen-producing bacteria in the laboratory and they designed a primitive fuel cell that produced minute amounts of electricity from the hydrogen gas generated from their experimental microorganism. They were interviewed by the Lumus Petrochemical Corp. of New Jersey, who told them hydrogen fuel cells would never replace petroleum.

Today, hydrogen fuel cell automobiles are a reality.

One of Sam's fondest memories was when they took Dr. Zweig's hydrogen truck to various events in the mall, collected the water that came out of the tailpipe and drank the water, in addition to giving the water to interested onlookers. In 1987, during a health-awareness event on the RCC campus, Sam ran behind Dr. Zweig's hydrogen-operated truck with a vacuum cleaner hose attached to the exhaust pipe, breathing the steam exhaust that came out of the tailpipe.

Today, Sam visits various elementary schools in the Riverside and Grand Terrance region to explain and demonstrate the importance of clean, renewable hydrogen-fuel cell. The Riverside Uptown Kiwanis Club is sponsoring these presentations.

In 1986 Sam was the recipient of a Dr. and Mrs. Robert Zweig Award for his involvement working with Dr. Zweig.

Currently Sam is working on a 7' x 8' mural for the Biomedical Program at the University of California at Riverside, honoring Dr. Zweig. The mural shows Dr. Zweig as one of the founders of Parkview Hospital and a beloved master teacher in the UCR Biomedical Program. The mural also illustrates the experimental hydrogen bus, truck, and sports car he helped developed. The mural shows the concept of the Hydrogen Corridor, first proposed by Dr. Zweig. Now the governor of California has adopted Dr. Zweig's idea for a Hydrogen Corridor and renamed it The Hydrogen Highway.

*CAN is very proud of the accomplishments of Sam Huang in calling attention to the important issues of air pollution.*



**SAVE THE DATE  
OCTOBER 11, 2005  
5:30- 7:00 pm**

**Unveiling of the mural honoring Dr. Robert M.  
Zweig, M.D. by Sam Huang, Ph.D.  
(Invitation to be mailed.)**

### WHAT'S UP DOC?

As a CAN Board member, I am writing this article to bring you up to date on air pollution issues, and CAN's activities over the past six months. The title, "What's Up Doc?" refers to CAN's efforts against air pollution which have been motivated by our concern for human health. This is our history and our future. I also want to thank all of our members past and present for donating their time and/or money.

#### *What's in the newspaper?*

- Higher gas prices have increased interest in hybrid cars, including SUVs. People are willing to wait in line and pay premium prices for these cars.
- Environmental groups protested a planned U.S. liquefied natural gas terminal on the coast of Mexico because of risk to endangered species.
- The South Coast Air Quality Management District tightened ozone requirements because of health studies requiring more stringent regulation.
- The SCAQMD proposal to impose fees on dirty locomotives is being fought by the railroad companies. Rail traffic is expected to double in the next twenty years.
- The first of six hydrogen fueling stations was opened in Chino on February 18, 2005. The station is collaboration between Chevron Texaco, Hyundai, and UTC Fuel Cells will produce hydrogen on site to fuel a small fleet of demonstration Hyundai Tucson and Kia Sportage fuel cell electric vehicles.
- U.S. District Courts ruled that the SCAQMD can require public agencies to buy clean fuel buses, trucks, and cars when replacing or expanding their fleets.
- June 2 the Million Solar Roofs Bill, SB 1, co-authored by Senators Kevin Murray (D-Los Angeles) and John Campbell (R-Orange County) and endorsed by Governor Schwarzenegger cleared the California State Senate by a vote of 28 to 3. The popular solar power bill received numerous votes from both sides of the aisle demonstrating broad bi-partisan support for solar power among California policy makers.

#### *What's not in the newspaper?*

- CAN members participated in the annual National Clean Cities Conference in Palm Springs in August where alternative fuel vehicles were on display including the Honda FCX and the Daimler Chrysler F-Cell fuel cell vehicles.
- CAN put on the third workshop for teachers in Riverside County using the Clean Air Challenge Program designed for science students in grades 7 through 12. The program helps science teachers meet California science standards while enabling students to conduct scientific research on air pollution and its impact on their health. The program teaches students about how air pollution is formed, measured, and choices we can make to clean up the air.
- CAN Board members continue speaking in public schools about air quality, health, and solutions. Over 200 students have been reached this year.

Don Blöse, CAN Board Member



## **CITY OF RIVERSIDE FLEET MANAGEMENT – HYDROGEN FUELING STATION AND CLEAN FLEET**

The City of Riverside has received five Toyota Prius' which will now be converted to run on hydrogen using the internal combustion engine. The Zweig hydrogen fueling station is scheduled to be completed sometime in late October or early November. This project is being partially funded by the South Coast Air Quality Management District and the City of Riverside.

We congratulate the City, but want you to know that in addition to supporting the hydrogen pilot program, the city is continuing to convert the fleet to clean vehicles. The City recently purchased two 4x4 Ford Escape Hybrids for departments to try out for use where a larger vehicle or SUV are required. It is the goal of the Fleet Manager, Martin Bowman to purchase vehicles with an emission rating of SULEV/AT-PZEV when purchasing 4WD. These vehicles have an EPA 33/29 mileage rating, much lower than similar sized SUVs. His experience is that the \$28,000 cost of these vehicles is less than the larger units, saving the City money and contributing to clean air. Keep up the good work, Martin.

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*The following essay was submitted by Shirley Tung, an undergraduate in the Biomedical Sciences Program at the University of California, Riverside. Ms. Tung is the first recipient of the Dr. Robert M. Zweig Scholarship.*

### **Air Pollution and Medicine by Shirley Tung**

My goal in the future is to be a pediatrician—to me, children represent our future and it is important that we all take measures to ensure their safety and health to the best of our ability.

Therefore, issues related to children's health have been of great interest to me and something I try to keep up with. A recent article in the Journal of the American Medical Association was about how children with asthma are having more respiratory symptoms in areas with greater air pollution and how with rising air pollution more children are presenting with asthma than in the past. I find this issue to be of particular concern because children thrive on being active and find joy in interacting with their peers; however, with the increased chance of having a bad asthma attack they may not be able to go play that game of dodge ball that their friends are all participating in.

Growing up in Southern California I can recall many days in which my peers and I were unable to go outside to play during recess because of a smog alert. For a kid this was one of the worst things that could happen--at this time one of our greatest worries was who would get the ball for handball or who would be "it" in a game of tag. As I have grown up the problem with air pollution has seemed to have become exponentially worse. It has become increasingly more difficult for children to be just "normal kids." Whenever I am home, I no longer see the neighborhood children playing jump rope or a good oP game of baseball in the street but I find most of them indoors playing with their Nintendo's not because they are not interested in playing outdoors but because they would rather avoid having an asthma attack. My brother was one of these kids; I remember him after soccer games coming in and complaining of being "unable to breathe" and soon he decided to just stay inside even though he enjoyed playing outdoors. When we would go on family vacations up to Big Bear he was ecstatic because he was able to breathe without feeling congested—the air was cleaner and the lack of pollutants allowed him to regain his childhood for a period of time. Unfortunately, air pollution and its effects are a reality that most children must deal with; my hope is that we, as members of society, will find ways to help improve our air to help children embrace life and live it fully.

Not only does air pollution exacerbate asthma but it can also be linked to other problems like arterial disease, cancer, shortened life-expectancy, headaches, acid rain and global warming which can damage ecosystems and threaten current ways of living, etc; therefore, it is a problem that affects not only children but many other members of society. No matter what field of medicine my peers and I go into, we will be seeing the effects of poor air quality in our practice.

As members of society we must help improve, or at least maintain, the current quality of air to ensure the health of ourselves, our patients, and that of future generations.



**JOIN CLEAN AIR NOW!**

**Clean Air Now Membership  
Form**

**Membership Categories**

Student \$ 10  
Individual \$ 25  
Premium Individual: \$ 45  
Sustaining: \$100  
Sponsor: \$250  
Corporate: \$500  
(Memberships include CAN Newsletter)

Contributions may also be made to the Robert M. Zweig  
Memorial Scholarship  
Division of Biomedical Sciences  
B600 Statistics/Computer Bldg.  
University of California  
Riverside, CA 92521  
Attention: Lynne Hice

**Yes! I want to become a Clean Air Now member  
and help to improve air quality.**

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Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Phone ( ) \_\_\_\_\_

Membership category \_\_\_\_\_

**Mail to: Clean Air Now**  
6960 Magnolia Ave., Ste. 200  
Riverside, CA, 92506

**For information contact:**  
Virginia Field (951) 683-7733 or  
James Provenzano (310) 472-8633

**NOTE: The Clean Air Now web site is being developed. Check it out at [www.cleanairnow.us](http://www.cleanairnow.us).**

**CLEAN AIR NOW!**  
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