



Science Research Education

News from AFAR

AMERICAN FOUNDATION FOR AGING RESEARCH

MARCH 2009

AFAR

AFAR HONORS FRIEND AND COLLEAGUE JAIME VODVARKA

INSIDE THIS ISSUE:

AWARDEES	2
THANK YOU TO WHOLE FOODS!	3
CHECK OUT THE HCARD!	3
CELEBRATING 30 YEARS!	3
SPONSORS	4



Jaime Vodvarka shined an amazing light on everyone she knew. She was a person of great integrity, kindness, generosity and optimism. Jaime worked for over 3 years at AFAR to enhance our mission of providing scholarships and fellowships to students conducting aging and age-related research. Jaime was instrumental in garnering new funding and finding innovative ways to enhance AFAR's mission. Jaime did all of her work for AFAR part-time while she attended graduate school at NC State, as well as working on myriad other charities which were so important to her. Jaime was the first impression and connection anyone had with AFAR and she created an atmosphere of encouragement, assistance and support for those applying for an AFAR award or needing any information about AFAR.

We lost Jaime in a car accident in December 2008 and the world hasn't been the same. Her smile, dedication, perseverance and her incredible positive attitude has forever made its mark on our hearts. To honor and celebrate her amazing life we walk and run on March 21, 2009. We hope to raise \$3,000 to fund six \$500 or three \$1,000 awards for students in Jaime's honor.

Losing Jaime was a great loss and has brought us great sadness, but Jaime was a doer, one who would expect us to honor her memory by "doing" as well - like supporting a cause that gives back to others. Jaime was all about giving back.

Please support us as we memorialize the remarkable life of Jaime Vodvarka. Maybe you could skip the daily coffee or soda for a week, or bring your lunch to work one day and donate to our walk? Anything to help us reach our goal would be very much appreciated. Please donate online at <http://www.active.com/donate/ghr2009/AFARHonorsJaime> or send a check made payable to "VCD/Great Human Race" to our AFAR address and write AFAR Honors Jaime on the memo line.

THANK YOU in advance for giving to AFAR and for helping us honor and our wonderful colleague and friend.

AFAR'S PURPOSE

To provide educational and research grants to students conducting cellular, molecular and genetic research on aging or age-related illnesses.

AFAR AWARDEES**GSK AWARDEE— JOANA SOARES, GRADUATE — UNC-CHAPEL HILL
STRESS AND AGING**

Aging involves a progressive deterioration of tissue function, in part due to a reduction in new growth and a diminished capacity of tissue repair. Mounting data support the notion that the loss of telomere repeats in stem cells and lymphocytes contribute to human aging. Although telomere loss occurs naturally with each round of DNA replication, telomere shortening can be intensified by the presence of reactive oxygen species due to oxidation of telomeric DNA. My research focuses on demonstrating that oxidative stress can not only shorten telomeres directly by producing DNA damage but it can also oxidize a critical cysteine residue of the protein subunit of telomerase, therefore, limiting its capability of forming an active telomerase complex and thus extending telomeres. This research is relevant for elucidating the crucial roles of oxidative damage to telomeres and telomerase in cellular aging and in understanding the underlying principles of the aging process.

**HONORARY IRWIN ROSE AWARDEE
ARATI INAMDAR, GRADUATE — UNIVERSITY OF ALABAMA
PARKINSON'S DISEASE**

In addition to genetic causes, environmental factors are proposed to contribute to the sporadic forms of Parkinson's disease (PD). Among the various candidate environmental factors, recent concern has been raised regarding exposure to the soil-bacteria, Actinomycetes in agricultural populations, who are known to exhibit an increase in the incidence of PD. Our collaborators in The Caldwell Lab (University of Alabama), recently discovered that exposure to crude conditioned medium of *Streptomyces venezuelae*, species belonging to Actinomycetes group, causes the loss of dopaminergic (DA) neurons of *C. elegans*. However, the mechanism through which such medium of *S. venezuelae* causes loss of DA neurons is not known. We have recently found the induction of nitric oxide and the activation of nitric oxide synthase (NOS)-expressing cells around the DA neurons in adult fly-brain in response to paraquat exposure, a well-known herbicide used to generate PD symptoms in PD models. Therefore, I hypothesize that exposure to crude conditioned medium of *S. venezuelae* induces PD symptoms in *Drosophila* along with activation of NOS, a major component/ marker in neuron death. Therefore, my research proposed to elucidate the mechanism(s) through which crude conditioned medium of *S. venezuelae* induces PD symptoms, which could be targeted to prevent or delay PD progression in the aging and agricultural population.



THANK YOU TO WHOLE FOODS!!

In 2006 and 2008, Whole Foods Market in Raleigh has supported both of our symposiums. Now, Whole Foods Market in Raleigh, Durham and Cary are supporting us in another way. Through their "Community Spotlight" program AFAR has become the non-profit for the month of January in Durham, February/March in Cary and March in Raleigh. What that means is that for the entire month, each of these Whole Foods Markets advertises AFAR and all that we do. They also collect donations at the cash registers for us.

Staff is also working with these Whole Foods locations to bring awareness about AFAR. In Dur-

ham and Raleigh, Dr. Agris gave a talk on health and wellness entitled, "Myths and Facts on Healthy Aging: Wellness and Nutrition." Mary Beth spent the afternoon of February 25 at Whole Foods Market in Cary discussing AFAR and the *AFAR Honors Jaime* walk.

The opportunities to inform the public about AFAR that Whole Foods Markets has given us is a prime example of how businesses become involved in their community and how the community benefits.

The presentations given by Dr. Agris allow community members to make informed choices that promote health as we age and thus improve on our quality of life. And, while AFAR supports research on the biol-

ogy of aging, we also believe in the importance of educating the public about nutrition, exercise and continued participation in a society sorely in need of experienced seniors.

The donations received during these months will provide much needed funds to the young scientists and their research on aging and age-related health problems.

This experience has been a win-win situation all around and we are so grateful to Whole Foods Markets in Durham, Cary and Raleigh for their support, assistance and concern for AFAR and what we do.

THANK YOU!!

HELP US CELEBRATE OUR 30TH ANNIVERSARY!!

AFAR is 30 this year—2009!

For 30 years, AFAR has provided scholarships and fellowships to undergraduate, graduate and doctoral students conducting research on aging and age-related illnesses. Help us celebrate AFAR's amazing 30 years of giving to students by giving to AFAR. Our goal for our **30 for Our 30th campaign** is \$60,000. We respectfully ask our supporters and new donors to give \$30, \$300 or \$3,000 to help us reach our \$60,000 goal to fund at least 30 students in 2009. Enclosed is an envelope for your convenience. Please help us to help you and all of us lead longer, healthier and more productive lives.

WANT A DISCOUNT? CHECK OUT THE HCARD!

In this current economy, couldn't you use a break? Well, if you go to AFAR's website

www.agingresearchfoundation.org

and click on the "hcard" logo, you can begin saving! AFAR is pleased to provide you the opportunity to begin saving and help us fund aging research! With the hcard you can obtain discounts and many restaurants and retail stores as well obtain discounted services and roadside emergency assistance.

By purchasing the hcard, you not only receive valuable discounts and emergency roadside assistance, 50% of the proceeds from the hcard purchase comes DIRECTLY to AFAR! It's a win-win situation.

Please see more information at our website.



**AFAR thanks the following for
their support**

Dr. Joseph Agris
Margaret P. Cristofalo
Mr. and Mrs. Harold Dobrin
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We are on the web!

www.AgingResearchFoundation.org

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