

Recent Fellowship Recipients

Avis Brennan, Yale University PhD Student, Dept. Neurobiology



The functioning of the prefrontal cortex (PFC) is instrumental in the organization and execution of thoughts, emotions and actions. The hallmark operation of the PFC is working memory or representational knowledge—the ability to represent information in the absence of stimuli. This ability ultimately permits us to follow a train of

thought, remember where we just put your house keys, or inhibit inappropriate or distracting stimuli. Although there is a well-documented profile of age-related PFC decline from both human and animal studies, molecular and electrophysiological studies of the aged brain in animals have primarily focused on the hippocampus. Developing therapies to improve cognitive function and quality of life among the growing elderly population requires more research on mechanisms of age-related PFC decline. AFAR has contributed to my research on anatomical and cellular mechanisms of PFC decline in aged rats. I am currently working on projects in aged and young-adult rats to examine structure-function relationships in the aged and young PFC, and will ideally identify factors that impact the operations of PFC networks and contribute to age-related PFC decline. In addition to providing me with direct support for these projects, AFAR has also provided valuable opportunities to connect with other members of the age-concerned scientific research community. I look forward to following the progress of AFAR-related projects and I am grateful to have been connecting with such a supportive and progressive organization so early in my research career. Thank you!

David Lamar, Emory University

David is studying the mechanisms underlying decreased immune function in the aging population. He is examining the functional integrity of aged T (immune) cells using organismal, cellular and molecular approaches.

Tony Tu, Duke University

Tony is an undergraduate student at Duke University. He is studying and characterizing the DNA release from tumor cells killed by antibody mediated complement. Information about the amount of DNA released in correlation with size, origins and mechanism of release is necessary to establish DNA as a biomarker.

An Nguyen, University of Pennsylvania Undergraduate Student,



I am grateful to AFAR for funding my current undergraduate research project. Low back pain is the most prevalent cause of activity limitation in Americans under 45 years of age and results in at least \$50 billion dollars in annual health care costs. By understanding the factors that effect

magnetic resonance image maps of intervertebral discs, a better assessment of this diagnosis method can be made. Further, it will not only aid in diagnosis but also aid in determining the optimal course of treatment.

FDA Warns Consumers Against Drinking High-Strength Hydrogen Peroxide for Medicinal Use

Ingestion Can Lead to Serious Health Risks and Death

The U.S. Food and Drug Administration (FDA) is warning consumers not to purchase or to use high-strength hydrogen peroxide products, including a product marketed as "35 Percent Food Grade Hydrogen Peroxide," for medicinal purposes because they can cause serious harm or death when ingested. FDA is working to stop companies selling high-strength hydrogen peroxide from making illegal medical claims about their products.

FDA has never approved high-strength hydrogen peroxide to be taken internally and considers hydrogen peroxide at 35 percent strength dangerous, even if handled according to the manufacturer's directions. This high-strength hydrogen peroxide -- more than 10 times stronger than the solution used in over-the-counter drugs to disinfect minor cuts -- is highly corrosive. Ingesting hydrogen peroxide can cause gastrointestinal irritation or ulceration. Intravenous (IV) administration of hydrogen peroxide can cause inflammation of the blood vessel at the injection site, gas embolisms (bubbles in blood vessels), and potentially life-threatening allergic reactions.

More Information

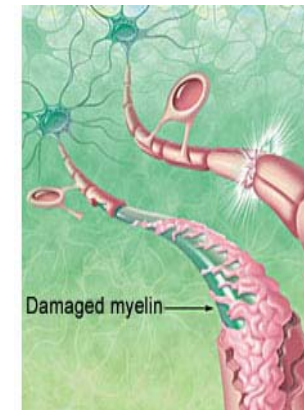
<http://www.fda.gov/bbs/topics/NEWS/2006/NEW01420.html>

Participate in New Clinical Trials

Courtesy of Thomson Center Watch

Multiple Sclerosis

Volunteers 18-55 who have been diagnosed with relapsing-remitting multiple sclerosis and are able to walk without assistance may be eligible for this clinical research study. Participants must have a history of taking interferon beta or Copaxone.



More Information

<http://www.centerwatch.com/patient/studies/cat102.html>.

Hot Flashes

This study will evaluate a non-hormonal medication to see if it can help control hot flashes. You may



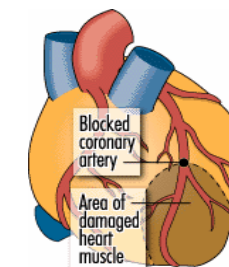
qualify if you are at least 40 year old, have multiple hot flashes and night sweats each week, had your last period at least six months ago, and are prepared not to use hormone therapy or anti-depressants during this 12-week study.

More information

<http://www.centerwatch.com/patient/studies/cat309.html>.

Heart Attack

This research trial will evaluate if an experimental drug lowers the risk of heart attack or stroke. Men 50 or older and women 60 or older with no history of heart attack or stroke and low-to-normal LDL (bad) cholesterol



may be included. Participants will receive study-related medical evaluations and may receive study drug. The research site is in Champaign, Ill.

More information

<http://www.centerwatch.com/patient/studies/cat463.html>.



VolunteerMatch
Where volunteering begins.

Recycle, Shop and Volunteer for AFAR!

Visit AFAR at www.AmericanAgingResearch.org to find out:

- ♥ How AFAR is Funded
- ♥ Why You Should Choose AFAR
- ♥ AFAR Donation Levels
- ♥ How to Shop On-Line for AFAR
- ♥ How to Recycle Ink Cartridges for AFAR
- ♥ More about our **NEW** Planned Giving Program

Donation checks may be sent to:

American Foundation for Aging Research
Biochemistry Department
North Carolina State University
Campus Box 7622
Raleigh, NC 27695-7622

Contributions may be made in honor of individuals, in memory of loved ones, or to recognize special occasions.

Contributions to the American Foundation for Aging Research are greatly appreciated and wisely used!

Financial reports are available upon request.

Support Comes From

The North Carolina GlaxoSmithKline Foundation

**Wal-Mart
Glenwood Avenue, Raleigh NC**

Whole Foods Raleigh

The North Carolina Biotechnology Center



Armed Forces and Civil Employees through the Combined Federal Campaign

We thank the following members for their ongoing support

Mr. Milton Grubman

*If you would like to be removed from our mailing list please contact us at:
919 515-5679 or via e-mail at afar_office@ncsu.edu.*



American Foundation for Aging Research
Biochemistry Department
North Carolina State University
Campus Box 7622
Raleigh, NC 27695-7622

Nonprofit Org.
U.S. Postage
PAID
Raleigh, NC
Permit No. 2353



The newsletter of the...

American Foundation for Aging Research

AFAR

Volume 6: Issue 3

Summer 2006

The American Foundation for Aging Research is solely dedicated to granting scholarships and fellowships to innovative young scientists utilizing cutting-edge technology to study age-related diseases.

**AFAR Hosts First Biennial NC GSK Symposium
Friday November 17th, 2006**

AFAR will host our first biennial NC GSK Symposium at the North Carolina Biotechnology Center in Research Triangle Park, NC. Sponsored by the NC GSK Foundation, these symposia provide a forum for burgeoning researchers in the field of aging to communicate with each other and more established professionals. We are honored to present 2004 Nobel Laureate Dr. Irwin Rose as our keynote speaker.

Dr. Rose has made an incredible contribution to the field of aging research through his discovery of ubiquitin - a protein that regulates the process of cellular reproduction including mechanisms underlying the development of cancerous cells. Though known for his award winning research on ubiquitin, Dr. Rose pioneered many biochemical advances from his research on the prochirality of citric acid to the use of neutron diffraction to establish the absolute configuration of a molecule. We are looking forward learning from and meeting such a successful and inspiring figure in biochemical research.

Though this Symposia is closed to the public, there will be a media briefing in the afternoon with Dr. Irwin Rose and student awardees as they discuss the future of aging research. We are honored to showcase the achievements of our student awardees and to provide this opportunity for them to communicate with a renowned expert in the field of aging research.

Since receiving funding from the North Carolina GlaxoSmithKline Foundation, AFAR has successfully awarded nine North Carolina student research grants. These students represent North Carolina institutions including Duke University, North Carolina State University, the University of North Carolina and Wake Forest Medical School. At the same time we have increased our national awards by nearly 30% in the past year while keeping our administrative and fundraising costs well below 25% of our gross income.

AFAR is grateful to our supporters and attributes our ongoing success to their efforts. If you would like to become involved or continue your engagement in our mission to strengthen the future of aging research, please read the rest of this newsletter for details.

Best Regards,

Paul Agris
President and Founder of the American Foundation for Aging Research

In This Issue.....

- Message from the President.....page 1
- Recent Fellowship Awardees.....page 2
- Articles: Hydrogen Peroxide Danger.....page 2
- Participate in Clinical Trials.....page 3
- Recycle, Shop & Volunteer for AFAR.....page 3
- Thanks to Supporters... ..page 4

The heights by great men reached and kept were not obtained by sudden flight. But they, while their companions slept, were toiling upward in the night.

- Thomas S. Monson