A team of Miller School of Medicine and Miami VA Medical Center researchers has developed a synthetic antagonist of growth hormone-releasing hormone (GHRH) that holds promise for a new drug therapy to reverse or stop the progression of Alzheimer’s disease. The findings, led by Andrew V. Schally, PhD, MDhc, DSc.hc, the 1977 Nobel Prize winner for Physiology or Medicine, were published in the November issue of the journal Aging.

In this study, *Beneficial effects of novel antagonists of GHRH in different models of Alzheimer’s disease*, Schally and his team examined the effects of a growth hormone-releasing hormone antagonist which was conceptualized, designed, and synthesized in their laboratory at the Miami VA. In addition to Schally, Distinguished Medical Research Scientist in the Miami Department of Veterans Affairs, the research team included Ferenc G. Rick, MD, former research assistant professor of pathology at the Miller School, and member of the Endocrine, Polypeptide and Cancer Institute at the Miami VA, and Norman Block, MD, professor of pathology, urology, oncology and biomedical engineering and the L. Austin Weeks
Family Professor of Urologic Research. The first author of the article is Miklos Jasberenyi, MD, PhD, a visiting professor from the University of Szeged, Hungary. The synthesis of the compounds was accomplished by Ren-Zhi Cai, PhD, assistant professor of pathology at the Miller School, and Marta Zarandi, PhD, DSc, visiting professor of pathology.

Miami Million Veterans Program (MVP) Enrolls 4,000th Volunteer

According to Carmen Gunipa, Research Coordinator, the Miami VA Healthcare System MVP, the team’s dedication to MVP is paying off. She believes that although the overall goal of MVP is ambitious it is an attainable goal. The Miami VA team has enrolled its 4,000th volunteer.

Launched in 2011, MVP is a landmark research effort aimed at better understanding how genes affect health. Up to a million veterans are expected to enroll in the VA study over the next 5-6 years. Data and genetic samples collected through the study are stored securely and made available for studies by authorized researchers, with stringent safeguards in place to protect veterans’ private health information. MVP is now enrolling at over 40 VA medical centers nationwide. The VA’s central bio-repository is equipped with a state-of-the-art robotic system for DNA extraction and storage and is currently being expanded to support up to 4 million samples. With more than 135,000 national enrollees to date, MVP already far exceeds the enrollment numbers of any single past VA Study research program.
Within the last month, the Miami VA Research and Development Service has made headway in fostering collaborations with affiliate academic institutions including the University of Miami, Florida International University and Nova Southeastern University —thus furthering the program’s impact on health care.

On March 13, 2013, a meeting was held between the Miami VA Research Service and Florida International University. Robert Jackson, MD, Associate Chief of Research, Luis Gonzalez, Administrative Officer for Research, and Katrina Washburn, PhD, Health Science Officer, spoke with Drs. Andres Gil, Vice President, Division of Research for Florida International University and Ranu Jung, Professor and WH Coulter Eminent Scholars Chair, Department of Biomedical Engineering about VA research opportunities and possible collaborations. Already research collaborations are beginning in the area of amputee research.

On April 2, 2013, Dr. Jackson gave a formal presentation to the University of Miami’s distinguished Research Cabinet on VA research opportunities. He highlighted funding opportunities offered through the VA’s four Research Services – Biomedical Laboratory Research and Development (BLR&D), Clinical Science Research and Development (CSR&D), Rehabilitation Research and Development (RR&D) and Health Services Research and Development (HSR&D) in addition to other types of VA/UM collaborations. There was immediate interest in developing collaborations between the VA and the university’s departments of Public Health and Biochemistry.

Strong collaborative research ventures are developing between the Miami VA Research Service and Nova Southeastern University through the establishment of Dr. Nancy Klimas’ Gulf War Institute. Meetings were held between the Miami VA Research Service, the South Florida Foundation for Research and Education (SFVAFRE) and Nova Southeastern University. Gary S. Margules, Sc.D., Vice President for Research and Technology Transfer, affirmed that the top leadership of Nova Southeastern University is deeply committed to strengthening connections with the VA in order to better serve our veterans.

Today, work continues to develop ties with the South Florida research community. The Miami VA Research Service fosters strong collaborations with affiliate partners to offer cutting edge care and a brighter tomorrow for veterans.
The U.S. Department of Veterans Affairs will celebrate National Research Week May 13-17. VA Research Inspires is the theme for 2013. As part of the nationwide observance, the Miami VA Medical Center will conduct Research Week activities on May 16 and 17. Research Service will host its 6th annual poster session on May 16. All research investigators are welcome to submit abstracts for this event. The second half of the program will be held on May 17 and will consist of a forum based venue to highlight VA research and how it benefits veterans. The speaker(s) will be paired with a veteran beneficiary(s) who has directly or indirectly benefited from a VA research study. Winners from the poster session will be announced at the conclusion of the forum.

6th Annual Miami VA Research Week Poster Session May 16

Call for Abstracts

To participate in the 6th annual poster session, please submit a one-page abstract describing your work to Isabel Perez in the Research office by April 30, 2013. Abstracts will be reviewed by the planning committee. Every effort will be made to match the subject matter of the abstract(s) with the judges’ expertise. Judging criteria will include mission relevance, significance of study, methodology, and presentation quality. The top three poster presentations in each category will receive awards.

For more information or to obtain the abstract submission form, contact Isabel Perez at iperez4@med.miami.edu or Isabel.Perez1@va.gov.
Let’s Talk Science” Research Series is Underway

Research Service is hosting a yearlong research seminar series to provide collegial time for all personnel, including principal investigators (PIs) and research staff (e.g., co-investigators, graduate students, post docs, residents, and fellows) to come together and share research interests, increase collaborations, and introduce new faces.

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Unless otherwise noted, seminars are held in the research conference room 207.

Research Service Highlights

Dry Eye Syndrome Research Update

Anat Galor, MD, MSPH and Vincent Venincasa, first author of the study entitled Characterization of organisms on the surface of the eye in patients with ocular surface disorders are currently recruiting patients. The study aims to evaluate the relationship between the ocular microbiome and subjective and objective measures of dry eye syndrome. They are looking for individuals with normal external ocular anatomy who are not using antibiotics.

Anat Galor, MD, MSPH and Vincent Venincasa (second year medical student & mentee)
or eye medication (artificial tears are ok). The study is a one-day investment and takes about 30 minutes to complete. For more information contact Kilaun Thompson at Kilaun.thompson@va.gov or page Dr. Galor at 305-288-2000 if interested in participating.

Local Patent Application Goes International
Isolation and Use of Pluripotent Stem Cell Population From Adult Neural Crest-Derived Tissues

Herman Cheung’s provincial patent application was converted into an international application with the US Patent Office. VA support and the right of the US Government in the invention were noted.

“Cross-Reference to Related Applications [0001]
This application claims priority to U.S. Provisional Application No. 61/605,483, filed March 1, 2012, which is hereby incorporated by reference in its entirety.

Statement of Government Support [0002]
This invention was made in part with government support from the Veterans Affairs Department. The U.S. government has certain rights in the invention.

Field of the Invention [0003]
The present invention relates generally to the fields of stem cell biology and regenerative medicine, and more particularly to the isolation and uses of a specific population of pluripotent, neural crest-derived stem cells. The invention also relates to methods of pre-conditioning these pluripotent stem cells to differentiate into specific cell lineages for different regenerative medicine applications, such as the treatment of degenerative diseases.”

Guy Howard, PhD, and GRECC Research Director is a member of the NIH Skeletal Biology Development and Disease (SBDD) Study Section, Center for Scientific Review. He recently participated in reviewing applications for NIH funding at a meeting held in San Francisco, CA, Feb. 11-12, 2013

Dr. Howard served as the Chairperson for the VA Basic Science/Clinical Science Merit Review PhD Eligibility Committee in Washington, DC, January 18, 2013. He also served as Chairperson of a VA Subject Matter Expert panel convened Feb. 21-22, 2013.
Silvia Levis, MD and GRECC clinical investigator is a member of the NIH Aging Systems and Geriatrics Study Section Center for Scientific Review. She recently participated in reviewing applications for NIH funding at a meeting held in Santa Monica, CA, February 4-6, 2013.

Presentations

Jonathan Tzu, MD presented a paper entitled *Quality of life disparities in veterans using glaucoma drops* at the American Glaucoma Society meeting in San Francisco. The purpose of the paper was to evaluate ocular surface symptoms in glaucoma patients using a DES specific quality of life (QoL) instrument and to evaluate whether demographics play a role in QoL differences. It was found that increasing numbers of glaucoma medications were associated with an increased frequency of severe symptoms and decreased emotional QoL. The finding affects patient compliance with glaucoma medications, which are often prescribed for intraocular pressure control without regard to QoL issues. Additionally, emotional QoL is differentially affected in black versus white patients, which bears importance in patient compliance and quality of care delivered.

VA Endocrine, Polypeptide and Cancer Institute

*Andrew V. Schally, PhD, MDhc, DSchc*


GRECC Geriatric Research, Education, and Clinical Center

Priyamvada Rai, PhD presented a poster on her work Compromising detoxification of oxidized nucleotides impairs proliferatin and tumorigenicity of non-small cell lung carcinoma (NSCLC) cells at the Cell Symposium "Hallmarks of Cancer", October 29-31, 2012, San Francisco, CA.

Dr. Rai also presented her research as an invited poster entitled Optimizing tumor suppressor response to androgen deprivation at the second Annual Florida Prostate Cancer Research Symposium, March 21-22, 2013, Lake Buena Vista, FL.

Silvina Levis, MD, presented a talk entitled What’s New in Osteoporosis, at a Pri-Med South Conference Current Clinical Issues in Primary Care program, sponsored by the University of Miami and Harvard Medical School, Ft. Lauderdale, FL, February 2013.
Florez Named Interim Chief of Gerontology and Geriatric Medicine

Hermes Florez, MD, PhD, MPH, associate professor of medicine and epidemiology and public health, has been named Interim Chief of the Division of Gerontology and Geriatric Medicine at the School and Interim Director of the Geriatric search, Education and Center (GRECC) at the Miami VA Healthcare tem. Florez replaces Bruce Troen, MD, as division chief and Bernard Roos, MD, as GRECC director. Both professors of medicine are stepping back from administrative duties to focus on their research. (read more)

Another Honor for Ruiz

Juan Pablo Ruiz (BME’13), Dr. Herman Cheung’s mentee/student, was awarded the Rhodes Fellowship of Science. Juan was one of sixteen awardees in the entire country selected by the prestigious National Institutes of Health Oxford-Cambridge Scholars Program, an accelerated, individualized doctoral training program for outstanding science students committed to biomedical research careers. The program is based on the British system in which students perform doctoral research without required formal courses, only those which students choose to take in relationship to their own interests. Students selected for admission to the program have already developed a sophisticated scientific background by having engaged in research as undergraduates.

Juan was also awarded another major academic
honor, the Howard Hughes Institute Gilliam Fellowship for Advanced Study, which will allow him to pursue his PhD studies at the school of his choice. In addition to his undergraduate Singer Scholarship and Barry Goldwater Fellowship, this latest honor will provide for tuition, expenses and a yearly stipend to pursue doctoral studies in biomedical research. Dr. Cheung, who has mentored Juan through his entire undergraduate career, commented on this latest accomplishment, “I am extremely proud of Juan, the quality of our students, and the excellent mentorship we can provide them.” Juan has already been accepted into the joint MIT/Harvard BME doctoral program. He credited Dr. Cheung for providing invaluable guidance and support throughout his time at UM.

Schally Elected Fellow of American Association of Cancer Research

Andrew V. Schally, PhD, MDhc, DSchc was elected as a Fellow of the inaugural class of the AACR Academy. The AACR Academy serves to recognize and celebrate distinguished scientists whose major scientific contributions have propelled significant innovation and progress against cancer. Fellows have been selected through a rigorous peer review process that evaluates individuals on the basis of their stellar scientific achievements in cancer research. The AACR Academy will be inducting its inaugural class of illustrious Fellows at the 2013 Annual Meeting on April 5, 2013 in Washington, D.C.

Rick Selected to Receive AUA Award

Ferenc G. Rick, M.D., Ph.D., Senior Research Scientist, was selected to receive the 2013 Urology Care Foundation Outstanding Graduate Scholar Award. The award will be presented by the president of the AUA at the Urology Care Foundation Research Awards reception, which will take place on May 3 in San Diego.

Rick’s profile:  http://scholar.google.com/citations?user=wy4Rp-YAAAAJ

The purpose of the study was to evaluate the scope of dry eye syndrome in a veteran population. The study examined differences in tear film parameters more than three months post-surgery in eyes with cataract surgery (surgical eyes) versus eyes without cataract surgery (nonsurgical eyes). Twenty-nine patients seen at the Miami Veterans Affairs Medical Center (VAMC) who had cataract surgery by phacoemulsification in one eye more than three months prior to the study date and had no history of surgical intervention in their fellow eye were recruited to participate. Eyes that had cataract surgery more than three months prior to testing had no differences in their tear film parameters compared to eyes without a history of surgery. This information is important as it can be used to counsel patients about their expected post-operative recovery after cataract surgery.


The purpose of the study was to examine ocular surface discomfort and tear film parameters in a veteran population. 263 veteran men aged 50 and older participated in the study. The study showed that ocular surface symptoms were prevalent in the veteran population (48% with severe symptoms). Measurement of standard tear film parameters could not explain the degree of symptoms. This study highlights the need for future research regarding the mechanisms behind ocular surface discomfort in patients with film disturbances.

Despite the high prevalence of insomnia in veterans with epilepsy, it remains understudied. The aim of the study was to identify the associations of insomnia with epilepsy, comorbidities, and treatment-related variables in South Florida veterans. A cross-sectional analysis of veterans attending an epilepsy clinic over 18 months was performed. Participants completed standardized assessments of seizure and sleep. Insomnia was defined as 1) difficulty with sleep onset, maintenance, or premature awakenings with daytime consequences or 2) sedative-hypnotic use on most nights of the previous month. One hundred sixty-five veterans (87% male, age 56±15 years) were included: Sixty-six reporting insomnia (40%). In logistic regression analysis, insomnia was significantly associated with post-traumatic seizure etiology, lamotrigine prescription, and mood and psychotic disorders. Female gender and levetiracetam treatment were associated with lower odds for insomnia. Insomnia was associated with post-traumatic epilepsy, mood/psychotic comorbidities, and antiepileptic regimen. Insomnia represents an under-recognized opportunity to improve comprehensive epilepsy care.

**GRECC**

*Geriatric Research, Education, and Clinical Center*


**VA Endocrine, Polypeptide and Cancer Institute**

**Andrew V. Schally, PhD, MDhc, DSchc**


Rick FG, Block NL, Schally AV. An update on the use of degarelix in the treatment of advanced hormone-dependent prostate cancer. Review Onco Targets and Therapy. Accepted for publication.

**SFVAFRE Corner**

**Grants Funded**

**Executed CRADAs and Other Funding:**

**Sponsor:** Gilead Sciences, Inc., Phase II/III CT CRADA  
**Project:** A Phase 3, Multicenter, Randomized, Open-Label Study to Investigate the Efficacy and Safety of Sofosbuvir/GS-5885 Fixed-Dose Combination ± Ribavirin for 12 and 24 Weeks in Treatment-Naïve Subjects with Chronic Genotype 1 HCV Infection  
**PI:** Lennox Jeffers, MD

**Sponsor:** Spectral Diagnostics, Investigational Device CT CRADA  
**Project:** Evaluating the Use of Polymyxin B Hemoperfusion in a Randomized Controlled Trial of Adults Treated for Endotexemia and Septic Shock (EUPHRATES)  
**PI:** Roland Schein, MD

**Sponsor:** Aeterna Zentaris GmbH  
**Project:** Disorazol Z cytotoxic LHRH conjugates  
**PI:** Andrew V. Schally, PhD, MDhc (Multi), DSc.hc

**Other Funding**

**Sponsor:** DOD Sub-Award  
**Project:** Sleep Disordered Breathing, cognitive Impairment, Quality of Life, and Cardiovascular Disease in Persons with Chronic Spinal Cord Injury  
**PI:** Douglas Wallace, MD

**Sponsor:** DOD Sub-Award  
**Project:** Project: Treatment of Pain and Automatic Dysreflexia in Spinal Cord injury with Deep Brain Stimulation  
**PI:** Alberto Martinez-Arizala, MD

**Sponsor:** AHRQ- Sub Award  
**Project:** Dissemination of Amputation and Prosthetic Evidenced-based Medicine (DAP-EM)  
**PI:** Ignacio Gaunaurd, PhD

**Sponsor:** NIH  
**Project:** Glycemia Reduction Approaches for Diabetes: A Comparative Effectiveness Study  
**PI:** Ignacio Gaunaurd, PhD
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is a service of the Research Service Office at the
Miami VA Healthcare System.
To view past issues, visit http://sfvafre.org/newsletter.php

Submissions
Faculty and staff submissions can be e-mailed to the
Office of Research Communications at
jperez4@med.miami.edu or Isabel.Perez1@va.gov.

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