



Miami VA Research & Development

Bruce W. Carter Department of Veterans Affairs Medical Center

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Senior VA Research Career Scientist
Professor of Medicine and Orthopedic Surgery

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Herman S. Cheung, PhD and Editor, “Stem Cells and Regenerative Medicine”

E-Book Series, *Bentham Science Publishers*, 11 chapters, Pg. 1-255, 2010.

AIMS & SCOPE:

The potential use of stem cells in transplantation for the purpose of tissue regeneration is an exciting area of research currently undergoing rapid development. Implantation of human embryonic or autologous, ex vivo-expanded adult stem cells, particularly in older individuals, would circumvent the limited availability of organs/tissues as well as prevent complication related to immune rejection and disease transmission. Musculoskeletal tissue degeneration is closely associated with aging. Strategies employing autologous adult MSCs from older individuals for transplantation in order to regenerate their own ailing organ or tissues require that we vigorously define MSCs' capacity to maintain growth potential and differentiation potential into the desirable

cell lineages. Currently limited knowledge restricts us to physical parameters such as biomechanical forces play with respect to MSCs growth and differentiation capacities. This is particularly important for MSCs isolated from older individuals, for whom little information is available. Hopefully, this publication will serve as impetus to generate interest to improve and develop cell-based therapies of damaged tissue using stem cells.

ACKNOWLEDGEMENT:

Dr. Cheung would like to thank all the VA Investigators that contributed to the book including Drs. Mary Eaton, Eva Widerstrom-Noga and Paul Schiller.

Summary of Dr. Cheung's Accomplishments (2009-2010)

Continued on Page 5

International Recognition:

1. Visiting Research Professorship at the University of Hong Kong
Awarded one of the 4 new Visiting Research Professorships at HKU to do research for 2 months/yr for 3 years (2010-2012)
2. Eye Center (JSIEC), Shantou, China (2010-2013). Appointment as International Consultant of Laboratory Research, Joint Shantou International
3. Distinguished Visiting Professor, The Chinese University of Hong Kong, Hong Kong, China. (June 2010)
4. Distinguished Visiting Professor, The Shantou University School of Medicine, Shantou, China. (May 2010)
5. Appointed as one of the 5 Reviewers by The Research Competitiveness Program (RCP) at the American Association for the Advancement of Science to judge the Life Science Discovery Fund (<http://www.lsdfa.org/>) in Washington State for establishment of Applied Research programs.

VA FOUNDATION CELEBRATES A MILESTONE

Abraira, Carlos
 Adan, Federico
 Altman, Norman
 Andrade, Allen
 Baracco, Gio
 Bencomo, Luis
 Bisno, Alan
 Block, Norman
 Bollinger, Rick
 Byrnes, John
 Caralis, Pat
 Chakko, Simon
 Cheung, Herman
 Chua, Lucy
 Ciocon, Daisy
 Cohen, Michael
 Dahn, Jason
 Dang, Stuti
 David, Daniella
 DeVito, Carolyn
 DeSouza, Gerard
 Dickinson, Gordon
 Douyon, Richard
 Epstein, Murray
 Estores, Irene
 Feldman, Paul
 Fitzpatrick, Robert
 Fletcher, MaryAnn
 Florez, Hermes
 Gailey, Robert
 Galor, Anat
 Golden, Adam
 Granville, Lisa
 Greidinger, Eric
 Hoffman, Robert
 Howard, Guy
 Howell, David
 Irvin, George
 Isaacks, Russell
 Jaimes, Edgar
 Jeffers, Lennox
 Karmacharya, Jagadan
 Kava, Bruce
 Kirsner, Robert
 Klimas, Nancy
 Kuljis, Rodrigo
 Levis, Silvina
 Lewis, Michael



The South Florida VA Foundation for Research and Education, Inc. (SFVAFRE) celebrated its 20th year anniversary during the Board of Director meeting on October 26. Special guests included Dr. Lawrence Fishman, former ACOS for Research and Mr. Gustavo Godoy, former AO for Research. Special recognitions were given to Dr. Fishman and Mr. Godoy for their extraordinary leadership in establishing the SFVAFRE. Through their hard work and foresight, the SFVAFRE continues to fulfill its mission: facilitate cooperative arrangements between VA clinician-investigators and non-VA sources of funding for the purpose of supporting clinician-investigators-educators at the Miami VA Healthcare System in the conduct of research and education that integrates clinical needs and research inquiry so as to enhance the quality of health care delivery to veterans, their families, the Department of Veterans Affairs and the general public.

Since its inception, the SFVAFRE has conducted a broad spectrum of research including clinical trials, basic science and educational activities. Currently there are 31 projects conducted by 26 investigators. In the past 20 years the SFVAFRE budget has increased from \$756,654 to \$3,371,963 in net assets. During this time many scientific discoveries and contributions have taken place. The SFVAFRE looks forward to new endeavors and breakthroughs as it serves the Veterans that fight to protect our country.

Llorente, Maria
 Lopez, Juan Carlos
 Malphurs, Julie
 Manten, Howard
 Marks, Jennifer
 Martinez-Arizala, Alberto
 McCarthy, Micheline
 Mendes, Flavia
 Mensch, Joseph
 Miller, Joshua
 Mladenovic, Jeanette
 Morhart, Robert
 Neary, Joseph
 Nejman, Antoni
 Norenberg, Michael
 O'Grady, Guy
 Pardo, Victoriano
 Perez-Stable, Carlos
 Preston, Richard
 Qian, Tie
 Quartin, Andrew
 Raij, Leopoldo
 Ramsay, Eugene
 Restrepo, Juan
 Robles, Carlos
 Rogers, Arvey
 Rothenberg, Gary
 Ruiz, Jorge
 Russell, Edward
 Santa, Daphne
 Savaraj, Niramol
 Schally, Andrew
 Schein, Roland
 Schob, Alan
 Schulman, Ivonne
 Signorile, Joseph
 Sipski, Marca
 Spector, Seth
 Tamariz, Leonard
 Taylor, Andrew
 Tolchin, Roland
 Tran, Minh
 Troen, Bruce
 Vaamonde, Carlos
 Wangpaichitr, Medhi
 Yu, Hong
 Zlamal, Ray

EXERCISE AND IDIOPATHIC PULMONARY FIBROSIS

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The Research Service has initiated a new study that encompasses basic physiologic and clinical investigations of the mechanisms of exercise limitation and effects of rehabilitation on IPF patients.

The three year study has been funded (\$763,345) by the Rehabilitation Research Service.

Robert M. Jackson, MD is principal investigator and major collaborators include Diana Cardenas, MD, Chair of Rehabilitation Medicine, Ronald Tolchin, DO, Chief of VA Rehabilitation Service and Orlando Gomez-Marin, PhD, Professor of Epidemiology.

RESEARCH HIGHLIGHTS

Andrew V. Schally, Ph.D., M.D.h.c., D.Sc.h.c.



Andrew V. Schally, Ph.D., M.D.h.c., D.Sc.h.c.,
 1977 Nobel Prize winner for Physiology or Medicine, Distinguished Medical Research Scientist of the Department of Veterans Affairs, and Distinguished Professor of Pathology of the University of Miami Miller School of Medicine

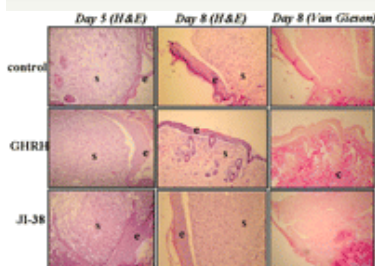
Worldwide, wound healing is becoming an increasing challenge facing physicians, creating an urgent need for more effective therapies. Chronic ulcers, diabetic ulcers, surgical wounds, trauma wounds and burns can lead to severe debilitation, long hospitalizations and amputation. While antibiotics have been used in some cases, there has been only limited success. Therefore, developing improved methods to heal wounds more effectively and quickly is a priority for physicians around the world.

Ph.D., assistant professor in the Department of Biochemistry at the University of Athens Medical School, and his colleagues. Their findings are published in the October 11 online issue of the Proceedings of the National Academy of Sciences.

Schally, Block and the Athens scientists showed that a synthetic agonist of GHRH, JI-38, stimulated the growth and migration of fibroblasts in mouse models, which are necessary for wound healing and skin repair. The researchers found that a synthetic antagonist of GHRH inhibited fibroblast activity, indicating that the GHRH mechanism created this change. In addition to sparking fibroblast growth for wound healing, this particular JI-38 agonist also activated other genes and the expression of smooth muscle actin-alpha, yet another sign of the activity of fibroblasts.

Led by Andrew V. Schally, Ph.D., M.D.h.c., D.Sc.h.c., the 1977 Nobel Prize winner for Physiology or Medicine, Distinguished Medical Research Scientist of the Department of Veterans Affairs, and Distinguished Professor of Pathology, an international team of researchers at the University of Miami and the University of Athens in Greece has discovered a potential method of improving wound healing using growth hormone-releasing hormone (GHRH).

The finding “could be extremely important,” says Schally, who believes it can help children and adults who suffer from painful burns, diabetics with slow-healing ulcers, and veterans who have been wounded in battle. “Improving the healing time of all these patients will diminish the death and disability from all serious wounds.”



Schally and Norman Block, M.D., professor of pathology, urology, and biomedical engineering and the L. Austin Weeks Family Professor of Urologic Research, collaborated with Hippokratris Kiaris,

AAHRPP ACCREDITATION RENEWAL



The Association for the Accreditation of Human Research Protection Programs, Inc. (AAHRPP) promotes the highest quality research through accreditation that helps organizations worldwide strengthen their human research protection programs (HRPPs). The Miami VA Healthcare System was granted full accreditation by the AAHRPP on December 12, 2008. It is preparing to renew AAHRPP accreditation by performing the same self-

assessment and gap analysis required for the initial accreditation application three years ago. The renewal application is due on March 15, 2011. AAHRPP will review the application and send back a list of concerns to be addressed within a defined time period. The application will then go to a member of the Council on Accreditation this fall. The Council will meet on December 15, 2011 and will determine accreditation status shortly after.

MIAMI VA GRECC GETS MAJOR HHS-NIH GRANT FOR DIABETES PREVENTION AND MANAGEMENT



Hermes Florez, MD, MPH, PhD
GRECC Associate Clinical Director
Miami VA Healthcare System
Associate Professor of Clinical Medicine
& Epidemiology
Divisions of Endocrinology & Geriatric Medicine

Hermes Florez, MD, PhD, Clinical Director of the Miami VA GRECC and Associate Professor at the University of Miami (UM) is leading a nearly 3 million USD project, "Peer-led and Telehealth Interventions for Comparative Effectiveness Research on Diabetes Prevention and Management" to implement lessons learned in the US Diabetes Prevention Program (DPP) and the Veterans Affairs Diabetes Trial (VADT) and to reduce the burden of diabetes in South Florida's older adults. The support is provided by the Department of Health and Human Service (HHS) through a grant from the National Institutes of Health (NIH).

Dr. Florez's project is building upon the experiences of Dr. Stuti Dang, Director of the Miami VA Telehealth Program (T-Care) and Co-PI in this project as well as Dr. Bernard Roos, Director of the GRECC and UM-Geriatrics Institute and member of the Leadership Council in the Healthy Aging Regional Collaborative (HARC), a key partner in this project. HARC is implementing evidence-based programs to promote exercise (Enhance Fitness), improve chronic disease self-management (Living Healthy), prevent falls (Matter of Balance), and screen for depression (Healthy Ideas). HARC programs are expected to benefit nearly 35,000 older adults in South Florida over a 5-year period of implementation.

Dr. Florez's HARC team experience in Miami-Dade and Broward, with more than 300 older veterans enrolled (half with prediabetes or diabetes), showing the metabolic and functional benefits of group exercise with peer-leader support, provided key preliminary data for his HHS-NIH project.

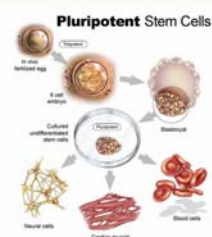
The translational research efforts of the Miami VA GRECC team are expected to address the epidemic of diabetes in the US. Nearly 24 million people have diabetes and approximately 57 million people have prediabetes, with almost half of them age 60 and older. Working together with the MOVE! weight management program at local, regional (VISN 8), and national (NCP) levels, Dr. Florez's project will support strategies in the Patient Aligned Care Team (PACT) initiative to improve the well-being of our veterans, reduce the burden of obesity-related comorbidities (such as diabetes and cardiovascular disease) while promoting healthier aging in our community.



ELECTRONIC SUBMISSION PROCESS UNDERWAY



The Miami VA is planning to implement an electronic submission for protocols submitted to the Institutional Review Board (IRB). The electronic submission will not only facilitate the submission process of new protocols and amendments, but also the IRB's internal review process and communication with the principal investigators. The electronic system developed by the Boston VA is currently being adapted by other VAs. The Miami VA IRB Office is currently adapting the system to its needs and is expected to have the system in place next year.



SUMMARY OF DR. CHEUNG'S ACCOMPLISHMENTS (2009-2010)

Continued from Page 1

Patent Applications:

- Full patent application
“**Adult pluripotent stem cells derived from dental tissue,**” 2009.
- Full patent application
“**Protocol for voice-recognition-based applications to improve efficiency/outcomes of chronic care,**” Application # 61048586. April 2008.
Co-inventors: Bernard Roos, M.D. & Herman S. Cheung, Ph.D.:
A licensing agreement of this patent-pending technology application, “Protocol for voice-recognition-based applications to improve efficiency/outcomes of chronic care,” has been signed with GenerationOne, Miami Beach, FL. Beta testing initiated by an award (\$100,000) from the State of Florida James & Esther King Biomedical Research Program, “A novel fully integrated mobile management solution (FIMMS) using cellular phone technology for heart failure,” (4/2010-3/2011).

Appointment to Editorial Boards in 2009 & 2010

1. Editor, E-Book *Stem Cells and Regenerative Medicine*, Bentham Science Publishers
2. *World Journal of Stem Cells*
3. *The International Scholarly Research Journal of Rheumatology*



The mission of the Scientific Research Scholar Program is to promote the advancement of biomedical research through the establishment of international collaborations. Its aim is to develop active scientific interaction between the International Medicine Institute of the University of Miami Miller School of Medicine and research groups in centers of excellence world-wide.



According to Dr. Leopoldo Raij, Chair of the Scientific Research Scholar Committee, the new program offers the VA Research the opportunity of collaborating with highly trained scholars. This program employs a unique mentoring model that places a junior research scholar between one senior investigator in home institution and one at the Miami VA. The junior investigator would join a Miami VA laboratory for a period of 6 months up to two years during which s/he would complete or develop a new area of investigation applicable to the home institution.

For more information, please visit <http://imi.med.miami.edu/x154.xml>.

GLAUCOMA RESEARCH PROGRAM AT THE MIAMI VA



Anna K. Junk, MD



Sarah Wellik, MD



Sanjoy Bhattacharya, PhD

At the Miami VA Eye Clinic we strive to improve our veterans lives by preserving their eye sight. As we grow older the risk to develop open angle glaucoma, a potentially blinding disease, increases. Glaucoma is associated with elevated intraocular pressure, increasing age, family history of glaucoma and reduced central corneal thickness. Our treatment aims at lowering the intraocular pressure in individuals with glaucoma. Current theory assumes that increased outflow resistance at the trabecular meshwork leads to elevated intraocular pressure, which in turn results in irreversible damage to the optic nerve. Open angle glaucoma is a multifactorial disease and has been linked to up to twenty different genetic loci. The proteomic details of glaucomatous tissues are still not understood. Ongoing IRB approved research, lead by **Dr. Anna K. Junk**, Glaucoma specialist and Director of Glaucoma services at the Bruce Carter VA Eye Clinic is examining the etiology of open angle glaucoma.

Together with Dr. Sarah Wellik and Dr. Sanjoy Bhattacharya, Dr. Junk enrolls veterans with primary open angle glaucoma who require trabeculectomy surgery to participate. With the assent of the patient the glaucoma specialists Junk and

Wellik collect a piece of eye tissue (trabecular meshwork) at the time of the surgery that is usually discarded. In collaboration with Dr. Sanjoy Bhattacharya in Dr. Junk's laboratory, these samples are subjected to RNA analysis and proteomic mass spectrometry leading to identification of candidate proteins that are likely to be involved in pathophysiology. Specifically the team is searching for candidate enzymes/protein that play a role in the overall modulation of trabecular meshwork and changes. Our team is attempting to identify changes in the quantity and/or activity of the specific enzymes/proteins in glaucoma patients in contrast to those of control trabecular meshwork obtained from cornea donors. In addition, our group is analyzing the content and composition of protein accumulations in the glaucomatous trabecular meshwork as the presence and accumulation of specific proteins appears to correlate with and likely contribute to increased resistance to outflow.

Preliminary results of this work were presented in 2009 and 2010 at the Association for Research in Vision and Ophthalmology, the most important annual meeting for eye research held in Ft. Lauderdale, Florida.

EXERCISE AND IDIOPATHIC PULMONARY FIBROSIS

(Continued from Page 2)



Carol Ramos is the IPF research coordinator, Nicole Eustis is the study physical therapist, Connie Sol is the exercise physiologist and Meryl Cohen, PhD is the expert consultant on pulmonary rehabilitation.

After extensive physiologic testing the first subject has entered the rehabilitation program . The study will eventually

enroll up to 50 VA and non VA patients.

The goals of the program are to determine how exercise relates to systemic oxidant stress and whether pulmonary rehabilitation improves exercise capacity as it decreases oxidant stress.



Peer Review Journal

Siejka A, Schally AV, Block NL, Barabutis N. *Mechanisms of Inhibition of Human Benign Prostatic hyperplasia in vitro by LHRH antagonist Cetrorelix*. BJU International 2010; 106:1382-1388.

Hohla F, Schally AV. *Targeting gastrin releasing peptide receptors: new options for the therapy and diagnosis of cancer*. Cell Cycle 2010; 9(9):1738-1741.

Barabutis N, Siejka A, Schally AV. *Growth hormone releasing hormone induces the expression of nitric oxide synthase*. Journal of Cellular and Molecular Medicine: May 26, 2010 [Epub ahead of print]

Rick FG, Schally AV, Block NL, Halmos G, Perez R, Fernandez JB, Vidaurre I, Szalontay L. *LHRH antagonist Cetrorelix reduces prostate size and gene expression of proinflammatory cytokines and growth factors in a rat model of benign prostatic hyperplasia*. The Prostate: Oct. 13, 2010 [Epub ahead of print]

Ludwig B, Ziegler CG, Schally AV, Richter C, Steffen A, Jabs N, Funk RH, Brendel MD, Block NL, Ehrhart-Bornstein M, Bornstein SR. *Agonist of growth hormone releasing hormone as a potential effector for survival and proliferation of pancreatic islets*. PNAS 2010; 107(28):12623-12628.

Abstracts

Moreno M, Brown JW, Perez-Stable C, Schally AV, Fishman LM. *The targeted cytotoxic somatostatin analog AN-162 has pronounced growth inhibitory and apoptotic effects on SW-13 human adrenal carcinoma cells in culture*. ENDO 2010 Annual Meeting, San Diego, CA June 19-22, 2010. Endocrine Reviews, Supplement 1, June 2010, 31(3):S118

Ziegler CG, Brown JW, Schally AV, Erlar A, Gebauer L, Eisenhofer G, Ehrhart-Bornstein, and Bornstein SR. *Neuropeptide hormone receptor expression in human adrenal tumors and cell lines: antiproliferative effects of peptide analogues*. 2010 Annual Meeting, San Diego, CA June 19-22, 2010. Endocrine Reviews, Supplement 1, June 2010, 31(3):S120

PUBLICATIONS & ABSTRACTS

VA Endocrine, Polypeptide and Cancer Institute

Liu SV, Schally AV, Hawes D, Xiong S, Fazli L, Gleave M, Cai J, Groshen S, Brands F, Engel J, and Pinski J. *Expression of receptors for luteinizing hormone-releasing hormone (LH-RH) 9 in prostate cancers following therapy with LH-RH agonists*. Clinical Cancer Research 2010, September 7 [Epub ahead of print]

Chen SH, Schally AV, Lee LT, Chang GD, Lee PP, Lin CY, Hung CC, Hung HH, Hwang JJ, Lee MT. *Upregulation of fibronectin and tissue transglutaminase promotes cell invasion involving MMP and FAK activation in A431 carcinoma cells*. Anti-cancer Research 2010; 30(10):4177-4186.

Dioufa N, Schally AV, Chatzistamou I, Moustou E, Block N, Owens GK, Papavassiliou AG, Kiaris H. *Acceleration of wound healing by growth hormone-releasing hormone and its agonists*. PNAS 2010; 107(43):18611-18615.

Rozsa B, Nadji M, Schally A, Dezsó B, Flaskó T, Toth G, Mile M, Block N, Gabor H. *Receptors for luteinizing hormone-releasing hormone (LHRH) in benign prostatic hyperplasia (BPH) as potential molecular targets for therapy with LHRH antagonist Cetrorelix*. The Prostate Sept. 21, 2010 [Epub ahead of print]

Kovacs M, Schally AV, Hohla F, Rick FG, Pozsgai E, Szalontay L, Varga JL, Zarandi M. *A correlation of endocrine and anticancer effects of some antagonists of GHRH*. PEPTIDES 2010; 31(10):1839-1846.

Barabutis N, Schally AV. *Growth hormone-releasing hormone: Extrahypothalamic effects in physiology and pathology*. Cell Cycle Oct. 15, 2010 [Epub ahead of print]

Emons G, Kaufmann M, Gorchev G, Tsekova V, Grundker C, Sindermann H, Engel J, and Schally AV. *Dose escalation and pharmacokinetic study of AEZS-108 (AN-152) an LHRH agonist linked to doxorubicin, in women with LHRH receptor positive tumors*. Gynecologic Oncology: 2010; 119:457-461.

Wen J, Feng Y, Ahs ZZ, Zu Y, Schally AV, Chang CC. *Luteinizing hormone-releasing hormone (LHRH) antagonist Cetrorelix inhibits myeloma cell growth in vitro and in vivo*. Molecular Cancer Therapeutics Nov. 9, 2010 [Epub ahead of print]

Pozgai E, Schally AV, Halmos G, Rick F, Bellyei S. *The inhibitory effect of a novel cytotoxic somatostatin analog, A-162 on experimental glioblastoma*. Hormone and Metabolic Research 2010; 42:781-786.

Kiaris H, Block NL, Papavassiliou G, Schally AV. *GHRH and wound healing” Communicative & Integrative Biology*. Accepted for publication

Siejka A, Schally AV, Barabutis N. *Activation of Janus kinase/signal transducer and activator of transcription 3 pathway by growth hormone-releasing hormone*. Cell Mol Life Sci 2010; 67: 959-964.

Submitted for Publication

Klukovits A, Schally AV, Szalontay L, Papadia A, Varga J, Vidarre I, Halmos G. *Novel antagonists of growth hormone releasing hormone (GHRH) inhibit growth and vascularization of human experimental ovarian cancers*. Cancer Research: Accepted for publication

Abdel Wahab M, Schally AV, Rick FG, Szalontay L, Block N, Jorda M, Diaz A, Mahmoud O, Markoe A, Shi Y-F, Reiner T, Zarandi M, Duncan R. *Antagonists of growth hormone releasing hormone given before whole body radiation. Lead to radioprotection and organ – specific changes in the expression of angiogenesis*. Int J Rad Onc Submitted

Books & Book Chapters

Schally AV, Halmos G. *Targeting to Peptide Receptors*. In: Drug Delivery in Oncology. From Basic Research to Cancer Therapy, Vol. 3 Chapter V. Eds. Kratz, Senter, Steinhagen. Wiley –VCH– Submitted

In press

Banks WA, Morley JE, Farr SA, Price TO, Ercal N, Vidaurre I, Schally AV. *Positive effects of chronic administration of an antagonist of growth hormone releasing hormone on telomerase activity, oxidative stress, longevity, and aspects of aging in SAMP8 mice*.

ABSTRACTS VA Endocrine, Polypeptide & Cancer Institute

(Continued from Page 7)

Wahab M, Schally AV, Rick F, Szalontay L, Varga J, Shi Y, Zarandi M, Pollack A. *Antagonists of growth hormone releasing hormone potentiate radiation response in prostate cancer*. 2010 ASCO Annual Meeting, June 4-8, 2010, Chicago, IL. Abstract #10597 J Clin Oncol 28:7s, 2010 (suppl; abstr 10597)

Wahab M, Schally AV, Szalontay L, Rick FG, Varga JL, Shi Y-F, Zarandi M, Pollack A, Duncan R. *Radioprotection by Antagonists of Growth Hormone Releasing Hormone given before Whole Body Radiation is dependent on the Radiation Dose*. 51st ASTRO Annual Meeting, Nov. 1-5, 2010, Chicago, IL. Int J Radiat Oncol Biol Phys 2009;75(3) Suppl: S552-553.

Abdel-Wahab M, Schally AV, Szalontay L, Rick FG, Varga JL, Y-F Shi, Zarandi M, Pollack A, Duncan R. *Dose-dependent radioprotection by antagonists of growth hormone releasing hormone given before whole body irradiation is dependent on organ-specific target genes*. Oral presentation American Radium Society 92nd Annual Meeting. May 1 – 5, 2010.

Abdel Wahab M, Schally AV, Rick FG, Szalontay L, Mahmoud O, Shi Y-F, Zarandi M, Varga JL. *Antagonists of growth hormone releasing hormone (GHRH-A) given after radiation for prostate cancer tumors enhance tumor response through gene regulation*. ASTRO 2010: accepted. *ASTRO 2010* (American Society for Radiation Oncology), 52nd Annual Meeting 31st October 31- November 4, 2010 at San Diego.

Dr. Bruce Troen organized and co-directed a satellite symposium held in conjunction with the annual meeting of The Gerontological Society of America entitled Multidisciplinary Strategies for Preventing and Managing Osteoporosis in Frail High-Risk Elderly in Long-Term Care in New Orleans, LA, in November 2010.

Dr. Troen also presented the results of some of his VA Merit Review funded results in a poster presentation entitled Sirtuin Activating Compounds Inhibit Reactive Oxygen Species and Osteoclastogenesis at 63rd annual meeting of The Gerontological Society of America in New Orleans, LA, in November 2010.



Dr. Andrew V. Schally delivered the annual Harry Mullin, M.D., Lecture at the University of Scranton on November 11, 2010.

PRESENTATIONS

Dr. Silvina Levis presented a paper entitled Safety and Physical Performance Benefit of Daily Supplementation with 2000 IU of Vitamin D in Older Ambulatory Persons at The Gerontological Society of America in New Orleans, LA in November 2010 as a part of a GRECC symposium on Vitamin D and Good Health Across the Aging Continuum. GRECC investigators Drs. S. Levis, B. Roos, E. Cherniak, and B. Troen were co-investigators on this study.



Dr. Hector Castro, (Nephrology fellow) and Ivonne H. Schulman, MD from the Nephrology-Hypertension Section, VAMC had their abstract entitled Role of Statins in the Prevention of Contrast? Induced Nephropathy (CIN) in High Risk Patients selected by American Society of Nephrology's Program Committee for a Free Communication (Oral) presentation on November 20, 2010.

TRANSITIONS OF CARE



ACROSS THE AGING CONTINUUM

Dr. Hermes Florez, GRECC Clinical Director, presented a paper entitled Vitamin D Supplementation Reduces Blood Pressure in the Elderly and This is Modified by Frailty at the annual meeting of The Gerontological Society of America in New Orleans, LA, in November 2010. GRECC Director, Dr. Bernard Roos and GRECC investigators Drs. E. Paul Cherniak, Bruce Troen, and Silvina Levis were co-investigators on this study.

Dr. Florez also presented a paper entitled The Role of Vitamin D in Diabetes Prevention and Management at The Gerontological Society of America in New Orleans, LA in November 2010 as a part of a GRECC symposium on Vitamin D and Good Health Across the Aging Continuum. GRECC investigators Drs. S. Levis and B. Roos were co-investigators on this study.

Dr. Carlos Abaira presented a talk entitled VADT: Update of the Treatment at the University of Busan, South Korea in November, 2010.

ABSTRACTS

Anat Galor, M.D.
Ophthalmology

Bozorgmehr Pouyeg MD, **Anat Galor MD**, Anna K. Junk MD, Jesse Pelletier MD, Sarah R. Wellik MD, Ninel Z. Gregori MD, Joseph Trentacoste MD

Surgical and refractive outcomes in cataract surgery with toric intraocular lens implantation in a resident-teaching institution

Purpose: To evaluate refractive and surgical outcomes in cataract surgery utilizing the Acrysof toric intraocular lens (TIOL) in a teaching institution. **Design:** Retrospective consecutive case series. **Participants:** Patients undergoing cataract extraction with Acrysof TIOL placement at the Miami Veterans Affairs Medical Center (VAMC). **Main Outcome Measures:** Refractive and surgical outcomes after TIOL placement including deviation from targeted spherical and cylindrical correction, uncorrected and best corrected visual acuity, and development of ocular complications. **Results:** The authors present a series of 95 eyes (81 patients) that underwent cataract surgery with placement of Acrysof TIOL. Follow-up ranged from 1 month to 28 months (mean 7 months). The mean best corrected visual acuity (BCVA) improved from 20/115 at baseline to 20/35 with 92% of eyes having 20/50 or better visual acuity postoperatively. The mean deviation from targeted spherical correction was +0.07 diopters (D) (range -2.6 D to +3.6 D, SD 0.8, n=95) with 79% of patient achieving a spherical equivalent within 1 D of the target refraction. Post-operative residual cylinder was significantly reduced from baseline with 78% of eyes having at least a 0.5 D improvement in astigmatism after surgery (P<.0005). The mean deviation from targeted cylindrical correction was -0.51 D (range -5 D to 2.8 D, SD 1.2, n=86). The lens was placed in an incorrect position in two patients, and reoperation with lens rotation into the proper axis was required. **Conclusion:** We found that the added complexity associated with TIOL placement resulted in significant visual and astigmatic improvements without compromising patient safety in a teaching institution.

Anat Galor MD, William Feuer MS, David Lee, Hermes Florez, MD, PhD, David Carter BS, Victor L Perez MD, William J. Prunty
Prevalence and risk factors of dry eye syndrome in a veteran population

Purpose: To evaluate the prevalence of dry eye syndrome (DES) and its associated risk factors in a veteran population. **Design:** Retrospective study. **Participants:** Patients seen in the Miami and Broward Veteran Health Administration (VHA) eye clinics in the past 5 years. **Methods:** Patients were divided into cases and controls with regards to their dry eye status (cases included patients with an ICD9 code for DES whom received some form of dry eye therapy; controls included patients without an ICD9 code for DES whom did not receive any form of dry eye therapy). **Main outcome measures:** The prevalence of DES and associated risk factors in this population were examined. **Results:** A total of 16,862 patients were identified as being either a dry eye case (n=2056) or control (n=14806). Overall, 12% of males and 22% of females had a diagnosis of DES, with female gender imparting a 2.40 increased risk of DES (95% confidence interval (CI) 2.04-2.81) over male gender, p<0.0001. Several medical conditions were found to increase DES risk in our population including post traumatic stress disorder (odds ratio (OR) 1.97, 95% CI 1.75-2.23, p<0.0001), depression (OR 1.91, 95% CI 1.73-2.10, p<0.0001), autoimmune conditions (OR 1.96, 95% CI 1.74-2.20, p<0.0001), non-autoimmune arthritis (OR 2.23, 95% CI 2.02-2.45, p<0.0001), thyroid diseases (OR 1.81, 95% CI 1.46-2.26, p<0.0001), and sleep apnea (OR 2.20, 95% CI 1.97-2.46, p<0.0001). The use of several systemic medications was likewise associated with an increased risk of DES including anti-depressant medications (OR 1.97, 95% CI 1.79-2.17), anti-anxiety medication (OR 1.74, 95% CI 1.58-1.91), and anti-benign prostatic hyperplasia (BPH) medications (OR 1.68, 95% CI 1.51-1.86). **Conclusions:** The prevalence of DES was found to be high in both men and women in our population. Several medical diagnosis and systemic medications were found to be significantly associated with DES, with post-traumatic stress disorder and depression being important risk factors in our population.

Anat Galor MD (Ongoing VA project)

Case control study of dry eye syndrome in a male veteran population

Purpose: We are currently enrolling patients into a case-control study with the goal of evaluating risk factors associated with dry eye syndrome in a male veteran population. **Participants:** Two-hundred and fifty male veterans between the ages of 55 and 95 seen in the Miami Veteran Health Administration (VHA) eye clinics: half of the participants will have dry eye syndrome (cases) and half will serve as controls for this study. **Methods:** This study involves one visit that takes approximately 3 hours to complete. Required testing involves filling out a food frequency questionnaire, giving a blood sample to look for hormone levels, and undergoing a specialized ocular surface eye examination. **Main outcome measures:** To evaluate the epidemiological role of nutrition and androgen levels on dry eye syndrome in male veterans.



FUNDING FOR RESEARCH INFRASTRUCTURE



The Miami VAHS Research Service has received an award of \$8,014,326 to fund renovation and remodeling of existing research spaces. During the current fiscal year (FY11), around \$1,529,452 will be spent on design. A scope of work has been created by the Space Subcommittee along with ad hoc advisors, each of whom is an experienced VA investigator.

The general goal is to upgrade the interiors of research laboratories, including benches, walls and ceilings. The plan includes removal of non operational fume hoods and their replacement with new units.

Given availability of funds, some individual laboratories may be converted into “open bay” laboratory space to foster collaborative work by large research groups.

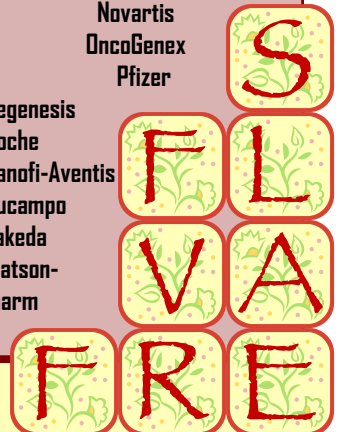
The Research Service worked with the Engineering Service and medical center leadership to submit and advocate for this long overdue support of research infrastructure.

Some laboratories and offices may be temporarily displaced, when demolition and renovation begin in FY12 (October 2011 – September 2012).

SFVAFRE CORNER

Other Funding		Miami VA CRADAs		Master CRADAs
<u>Executed</u>	<u>CRADA Type</u>	<u>Awarded</u>		
Gary Rothenberg	Cupron- Device	Leonardo Tamariz	Systolic Blood Pressure Intervention Trial- Sprint	Amgen
Allen Andrade	Pfizer- PI Initiated	Hermes Florez	Peer-led and Telehealth CER Adoption for Diabetes Prevention and Management- NIH Sub-award	Astellas
Robert Jackson	Novartis- CT Phase III			Astrazeneca
<u>Under negotiation</u>		<u>Submitted</u>		Avigen
Niramol Savaraj	Novartis- PI Initiated	Hong Yu	James and Esther King Biomedical Research- State of FL	Bristol-Myers Squibb
Maria Umbert	Univ of Delaware- DCA	Hong Yu	Impact of Aging on Progenitor Cell Homing- NIH ROI	Celgen
Nancy Klimas	Univ of Alberta- Basic	Peter Goldstein	Nanomaterials and Nanotechnology in Biology and Medicine- NIH R21	Genentech
Cynthia Cely	Astute Medical- CT	Hermes Florez	Matter of Balance in South Florida Older Veterans- Health Foundation of South Florida	GSK
		Niramol Savaraj	Material Transfer Agreement- Anaphore, Inc.	Lilly & Lilly
				Merck
				Novartis
				OncoGenex
				Pfizer
				Regenesis
				Roche
				Sanofi-Aventis
				Sucampo
				Takeda
				Watson-Pharm

If you have a project you would like to pursue, please stop by. We are happy to help.



AWARDS AND HONORS



Bruce Troen, M.D., professor of medicine, director of the Molecular Gerontology Program, Division of Gerontology and Geriatric Medicine, and an investigator with the Miami VA's Geriatric Research Education and Clinical Center (GRECC), was elected president of the newly created Scientific Advisory Board of the American Federation for Aging Research Florida (AFAR Florida).

Bruce Troen, M.D. and Bernard Roos, M.D., professor of medicine, director of the Stein Gerontological Institute, director of GRECC, and immediate past chairman of AFAR Florida, were re-elected.



Guy Howard, Ph.D. was selected to organize and chair a VA GRECC symposium at the 63rd annual meeting of The Gerontological Society of America in New Orleans, LA. in November 2010 entitled *Vitamin D and Good Health Across the Aging Continuum*. Dr. Silvina Levis was co-chair of this symposium.

Herman Cheung, Ph.D., was appointed as International Consultant of Laboratory Research, Joint Shantou International Eye Center (JSIEC), Shantou, China for the period 2010-2013.



Gordon Dickinson, M.D., professor of medicine and chief of the Division of Infectious Disease, co-authored an article entitled *Infection Control in Field Hospitals after a Natural Disasters: Lessons Learned after the 2010 Earthquake in Haiti*, which is available online and appears in the September issue of *Infection Control and Hospital Epidemiology*.



Carlton Gass, Ph.D., accepted an invitation to join the editorial board of the journal *Psychological Assessment*, which is a journal of the American Psychological Association.



GRANTS FUNDED



Medhi Wangpaichitr, M.D., was funded by Florida Bio-Medical/James and Esther King for the period of 3 years for his grant entitled *Targeting ROS and tumor metabolism to selectively kill cisplatin resistant lung cancer*.



Hermes Florez, M.D., Ph.D., GRECC Clinical Director, received an NIH Research Demonstration and Dissemination Project (R-18) award entitled "Peer-led and Telehealth CER Adoption for Diabetes Prevention and Management" for the period 9/13/10-8/31/13. This three-year study is funded for \$2,869, 900 direct costs. This project is designed to test the hypothesis that peer-led intervention, enhanced by telemedicine dissemination of CER evidence for prevention and management of diabetes, is superior to traditional methods of information dissemination for increasing knowledge and self-efficacy in obese older adults and their providers in South Florida. Drs. Bernard Roos and Stuti Dang are co-investigators on this project.



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Exercise Decreases Plasma Antioxidant Capacity And Increases Urinary Isoprostanes Of IPF Patients.

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Editor

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