

University of Florida College of Medicine

Annual Report
of the
McKnight Brain Institute
& Institute on Aging

Prepared for the McKnight Brain Research Foundation



TABLE OF CONTENTS

Letter from Dean Michael L. Good.....	5
Institute on Aging (IOA).....	7
Letter from Dr. Marco Pahor.....	9
Projected Budget prepared by IOA.....	11-12
Candidates for CAM Director.....	13
Annual Report template by Dr. Thomas C. Foster.....	15
Financials.....	21
T-Trial Study Press Release.....	23
LIFE Study Press Release.....	25
Mcknight Brain Institute (MBI).....	27
Letter from Dr. Dennis Steindler.....	29
Mcknight Financials prepared by MBI.....	31
UF Foundation Endowment Reports.....	33
Evelyn F. Mcknight Chair for Brain Research in Memory Loss (F007889).....	35
Evelyn F. Mcknight Brain Research Grant (F008057).....	37
Mcknight Fund Report Summary.....	39
Faculty Biography/Curriculum Vitae.....	41
Dean Michael L. Good - Announcement.....	43
Institute on Aging Faculty Dr. Marco Pahor.....	45
Dr. Thomas C. Foster.....	87
Dr. Christiaan Leuvenburgh.....	91
Mcknight Brain Institute Faculty Dr. Dennis Steindler.....	115
Contact Information.....	141



College of Medicine
Office of the Dean

PO Box 100215
Gainesville, FL 32610-0215
352-273-7500
352-273-8309 Fax

January 15, 2010

The McKnight Brain Research Foundation
The SunTrust Bank
Mail Code FL-ORL-2160
300 South Orange Ave., Suite 1600
Orlando, FL 32801

Dear Trustees:

It is my pleasure to thank you once again for the generous establishment of the Evelyn F. McKnight Brain Research Chair for Brain Research in Memory Loss. The partnership between the McKnight Brain Research Foundation and the University of Florida has resulted in accelerated research initiatives that help us better understand the progressive decline in memory-function.

As you will learn from the enclosed information provided by researchers within the College of Medicine, funds generated by these endowments, are supporting highly motivated, innovative and gifted basic and clinical science investigators who are determined in their pursuit of thwarting age-related memory loss. The UF College of Medicine strives every day to become one of the country's premier institutions for academic medicine. We are grateful for your support, and we remain committed to being good stewards of your investment. We look forward to many more years of a productive partnership to promote the research that will lead to a clear understanding of age-related memory loss.

Sincerely,

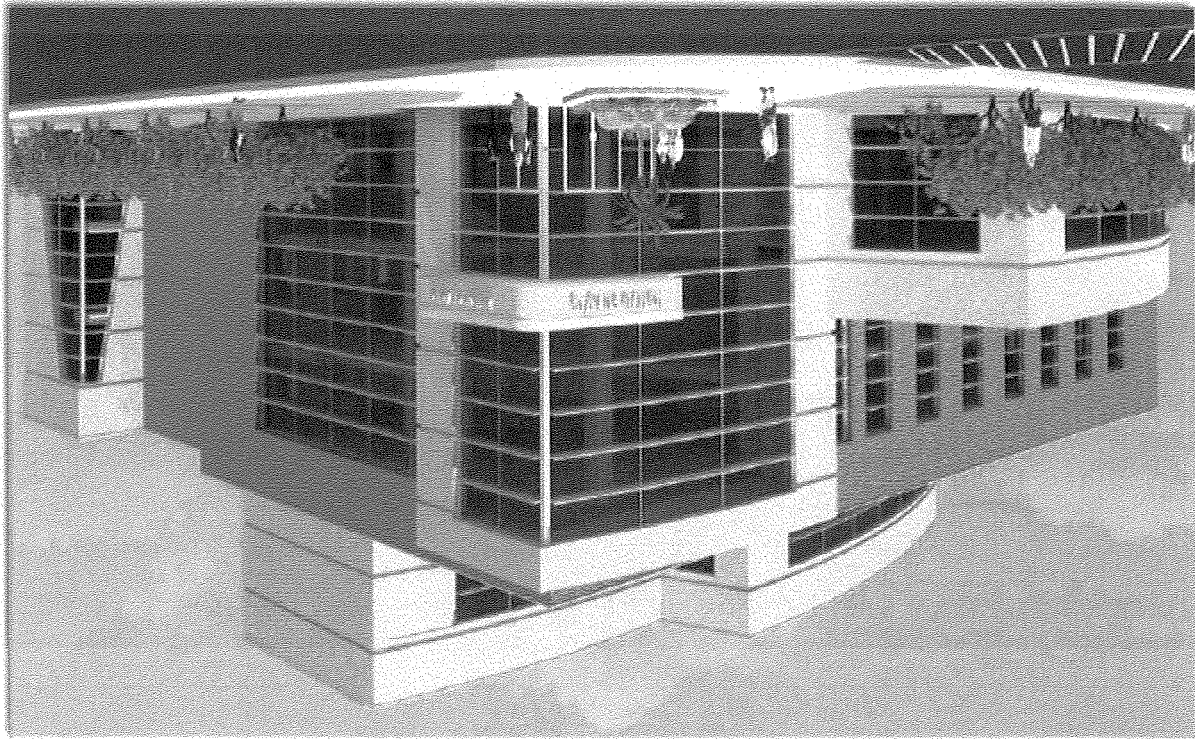
ML Good MD

Michael L. Good, M.D.
Dean, College of Medicine
Folke H. Peterson Deans' Distinguished Professor



UF | College of Medicine
UNIVERSITY of FLORIDA

Graphical Rendering of the New Institute on Aging Building



Institute on Aging Report

Prepared for the McKnight Brain Research Foundation

Annual Report
of the
McKnight Brain Institute
& Institute on Aging

University of Florida College of Medicine

January 12, 2010

McKnight Brain Research Foundation
Foundations & Endowments Specialty Practice
SunTrust Banks, Inc.
Mail Code FL-ORL-2160
300 South Orange Ave., Suite 1600
Orlando, FL 32801
Attn: Tiffany Ahlfield

Dear McKnight Brain Research Foundation Trustees:

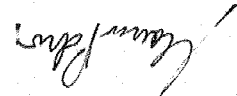
Thank you for the opportunity to present a progress report to the McKnight Brain Research Foundation for the period October 21, 2009 to December 31, 2009. Activity during this timeframe has involved the hiring of the director of the Cognitive Aging and Memory Clinical Translational Research Program. In early October, 2009, a national search committee was established, chaired by Tom Foster, PhD. Committee members include Michael Marsiske, PhD.; Herb Ward, MD; Stephen Anton, PhD; Tony Yachnis, MD and Ken Heilman, MD.

Achieving the objective of hiring the director for the CAM has been our highest priority. Committee members sent personal invitations to colleagues announcing the opportunity, and in addition, advertisements for the position were placed in six premier medical journals. To date, we have lined-up for interviews five candidates who have demonstrated significant accomplishments and who, we believe, would be an asset to the Institute. These candidates include Anna Mariya Barrett, MD; Charles DeCarli, MD; Paul A. Newhouse, M.D.; Caterina Rosano, MD, MPH; Steven L. Small, PhD, MD. The attached candidate list contains more complete information. We continue to receive applications. We hope to fill the CAM director position within this calendar year.

You will find attached a projected budget for the use of the McKnight funds. To date, we have received funding of \$1,634,217. During the period of October – December 2009, we expended approximately \$15,026, leaving approximately \$1,619,191 unencumbered for the current reporting period. In addition we anticipate annual endowment income of approximately \$470,264. The attached projected budget will be negotiated and updated once the director is successfully recruited to lead the CAM Program. We anticipate substantial escalation on expenses once the program begins to take shape. You will also find attached a McKnight Brain Research Foundation endowment report.

We deeply appreciate our partnership with the McKnight Brain Research Foundation in the development of an interdisciplinary research program, which translates basic science discoveries regarding cognitive aging and memory into clinical applications to slow, avert or restore the age-related cognitive decline and memory loss.

Sincerely,



Marco Pahor, MD
Professor and Chair, Department of Aging and Geriatric Research,
College of Medicine
Director, Institute on Aging

Enclosures

Cognitive Aging and Memory Clinical Translational Research Program

Institute on Aging

Budget – CAM-CTRP (cont.)

Personnel	Total	\$ -	\$ 513,516	\$ 1,072,270	\$ 885,916	\$ 673,391	\$ 470,898	\$ 3,615,992
Consultants								
External Advisory Board members (4@1500 honorarium)		\$ -	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 30,000
External Advisory Board members (4@1250 travel funds)		\$ -	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 25,000
Expert Speakers @2 per year		\$ -	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 25,000
Sub Consultants		\$ -	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 80,000
Equipment								
Computers/printers (8@3000)		\$ -	\$ 24,000	\$ -	\$ -	\$ 24,000	\$ -	\$ 48,000
Info Services		\$ -	\$ 13,500	\$ 27,000	\$ 27,000	\$ 27,000	\$ 27,000	\$ 121,500
Sub Equipment		\$ -	\$ 37,500	\$ 27,000	\$ 27,000	\$ 51,000	\$ 27,000	\$ 169,500
Travel								
Recruitment costs		\$ 5,000	\$ 10,000	\$ 10,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 40,000
Professional Travel (specialty conferences, collaborators, etc.)		\$ -	\$ 7,500	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 67,500
Sub travel		\$ 5,000	\$ 17,500	\$ 25,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 107,500
Supplies								
Software & administrative supplies		\$ -	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 50,000
Publications Cost (slides, posters)		\$ -	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 12,500
Sub supplies		\$ -	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 62,500
Other Cost								
Meals, entertainment (faculty recruitment, consultants, other mtg costs)		\$ -	\$ 10,000	\$ 10,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 35,000
Relocation Costs (faculty recruitment)		\$ -	\$ 15,000	\$ 15,000	\$ -	\$ 15,000	\$ -	\$ 45,000
Program supervision, coordination and administration		\$ 6,461	\$ 85,000	\$ 87,550	\$ 90,177	\$ 92,882	\$ 95,668	\$ 457,738
License, insurance, dues, subscriptions		\$ -	\$ 12,500	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 112,500
Advertising		\$ 3,565	\$ 10,000	\$ 10,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 38,565
Start-up Packages (faculty recruitment)		\$ -	\$ 75,000	\$ 20,000	\$ -	\$ 20,000	\$ -	\$ 115,000
Pilot Projects		\$ -	\$ 75,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 675,000
Sub total Other		\$ 10,026	\$ 282,500	\$ 317,550	\$ 275,177	\$ 312,882	\$ 280,668	\$ 1,478,803
Total Annual Costs		\$ 15,026	\$ 879,516	\$ 1,470,320	\$ 1,236,593	\$ 1,085,773	\$ 827,066	\$ 5,514,294
Initial Transfer from UFF (50% of accumulated non-endowed funds, approx. \$3.2 M)		\$ 1,634,217	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,634,217
Anticipated Annual Endowment Income		\$ -	\$ 470,264	\$ 470,264	\$ 470,264	\$ 470,264	\$ 470,264	\$ 2,351,320
Total Transfers		\$ 1,634,217	\$ 470,264	\$ 470,264	\$ 470,264	\$ 470,264	\$ 470,264	\$ 3,985,537
diff		\$ 1,619,191	\$ 1,209,938	\$ 209,882	\$ (556,447)	\$ (1,171,955)	\$ (1,528,758)	\$ (3,057,515)

COGNITIVE AGING MEMORY DIRECTOR CANDIDATES

Anna Mariya Barrett, MD
Program Director, Kessler Foundation Research Center
Stroke Rehabilitation Research
Professor, University of Medicine and Dentistry
New Jersey—the New Jersey Medical School
West Orange, New Jersey

Charles Decarli, MD
Director of Faculty Development in the Department of Neurology
Department of Neurology
University of California at Davis
Sacramento, CA

Paul A. Newhouse, M.D.
Director, Clinical Neuroscience Research Unit and Brain Imaging Program
Professor, Department of Psychiatry, University of Vermont College of Medicine
Burlington, VT

Caterina Rosano, MD, MPH
Associate Professor of Epidemiology
Center for Healthy Aging and Population
Graduate School of Public Health
University of Pittsburgh
Pittsburgh, PA

Steven L. Small, PhD, MD
Associate Chair for Research
Department of Neurology
The University of Chicago
Chicago, IL



Some gift agreements require both Institute reports and Chair reports. If applicable, please clearly state whether a particular response relates to a Chair or Institute.

Any capitalized terms used on the template are intended to have the same meaning as the term is defined in the Gift Agreement.

1. Summary of scientific achievements since last report

This has been an outstanding year for publications, with 7 publications and 3 more in press. In most cases, the journals have a high impact factor suggesting the importance of the work. The work identified age-related changes in cell survival signaling which contributes to increased susceptibility of region CA1 of the hippocampus to age-related decline. One of the factors that contribute to aging of the hippocampus is an increase in oxidative stress and loss of redox buffering. Our results indicate that impaired redox buffering mediates the decrease in NMDA receptor function. NMDA receptors are critical for synaptic plasticity and memory, thus our results provide a link between processes of aging and impaired memory mechanisms. Other studies examined treatments to improve memory including caloric restriction, exercise, environmental enrichment, hormone replacement, and gene therapy. In many cases, the treatments act on oxidative stress. The results indicate that these treatments can slow brain aging and cognitive decline. However, we are not satisfied with the ability of these treatments to reverse or ameliorate memory deficits in older animals. In addition to slowing the destructive effects of aging processes such as oxidative stress, amelioration of established memory deficits will require treatments to enhance transcriptional signaling cascades which are critical to the maintenance/consolidation of long-term memory. To this end we are employing gene therapy and examining treatments designed to activate intracellular signaling cascades. Our work indicates that rapid forgetting of older animals is due to an inability to generate sufficient activation from NMDA receptors to gene transcription. Our published work on gene therapy has provided interesting leads including receptors to promote signaling cascades for cell growth, synaptic function and neuroprotection.

2. Publications in peer reviewed journals

Jackson, T.C., Rani, A., Kumar, A., and Foster, T.C. (2009) Regional hippocampal differences in AKT survival signaling across the lifespan: implications for CA1 vulnerability with aging. Cell Death and Differentiation, 16: 439-448.

Cui, L., Hofer, T., Rani, A., Leuvenburgh, C., and Foster, T.C. (2009) Comparison of lifelong and late life exercise on oxidative stress in the cerebellum. Neurobiology of Aging, 30: 903-909.

Aenlle, K.K, Kumar, A., Cui, L., Jackson, T.C. and Foster, T.C. (2009) Effects of cyclic estrogen treatment on cognition and transcription in the hippocampus of middle-aged mice. Neurobiology of Aging, 30: 932-945.

Madorsky, I., Opalach, K., Waber, A., Verrier, J., Solmo, C., Foster, T., Dunn, W., and Notterpek, L. (2009) Intermittent fasting alleviates the neuropathic phenotype in a mouse model of Charcot-Marie-Tooth disease. Neurobiology of Disease, 34: 146-154.

Zeier, Z., Kumar, A., Foster, T. C., and Bloom, D. C. (2009) Fragile X mental retardation protein replacement restores hippocampal synaptic function in a mouse model of fragile X syndrome. *Gene Therapy*, 16: 1122-1129.

Jackson, T. C. and Foster, T. C. (2009) Regional health and function in the hippocampus: Evolutionary compromises for a critical brain region. *Bioscience Hypotheses*, 2 245-251.

Carter, C.S., Leeuwenburgh, C., Daniels, M., and Foster, T. C. (2009) Contribution of increased physical activity to learning and memory performance after calorie restriction in a rodent model of aging. *Journal of Gerontology: Biological Sciences*, 64 850-859.

Aenlle, K., and Foster, T. C. (2009) Aging alters the expression of genes for neuroprotection and synaptic function following acute estradiol treatment. *Hippocampus* in press.

Kumar, A., Bodhinathan, K., and Foster, T. C. Cell selective vulnerability to calcium dysregulation during brain aging. *Frontiers in Aging Neuroscience* in press.

Bodhinathan, K., Kumar, A., Jackson, T. C. and Foster, T. C. Alterations in N-methyl D-aspartate receptor function in the aged brain: Role of oxidative stress. *Journal of Neuroscience* in press.

Someya S, Xu J, Kondo K, Ding D, Salvi RJ, Yamasoba T, Rabinovitch PS, Weindruch R, Leeuwenburgh C, Tanokura M, Prolla TA. Age-related hearing loss in C57BL/6J mice is mediated by Bak-dependent mitochondrial apoptosis. *Proc Natl Acad Sci U S A*. 2009.

Rangaraju S, Hankins D, Madorsky I, Madorsky E, Lee WH, Carter CS, Leeuwenburgh C, Notterpek L. Molecular architecture of myelinated peripheral nerves is supported by calorie restriction with aging. *Aging Cell*. 2009;8:178-91.

Bailey LJ, Cluett TJ, Reyes A, Prolla TA, Poulton J, Leeuwenburgh C, Holt LJ. Mice expressing an error-prone DNA polymerase in mitochondria display elevated replication pausing and chromosomal breakage at fragile sites of mitochondrial DNA. *Nucleic Acids Res*. 2009;37:2327-35.

Wohlgemuth SE, Seo AY, Marzetti E, Lees HA, Leeuwenburgh C. Skeletal muscle autophagy and apoptosis during aging: effects of calorie restriction and life-long exercise. *Exp Gerontol*. 2009.

Carter CS, Leeuwenburgh C, Daniels M, Foster TC. Influence of Calorie Restriction on Measures of Age-Related Cognitive Decline: Role of Increased Physical Activity. *J Gerontol A Biol Sci Med Sci*. 2009.

Chung HY, Cesari M, Anton S, Marzetti E, Giovannini S, Seo AY, Carter C, Yu BF, Leeuwenburgh C. Molecular inflammation: underpinnings of aging and age-related diseases. *Ageing Res Rev*. 2009;8:18-30.

Cui L, Hofer T, Rani A, Leeuwenburgh C, Foster TC. Comparison of lifelong and late life exercise on oxidative stress in the cerebellum. *Neurobiol Aging*. 2009;30:903-9.

Hofer T, Servais S, Seo AY, Marzetti E, Hiona A, Upadhyay SJ, Wohlgemuth SE, Leeuwenburgh C. Bioenergetics and permeability transition pore opening in heart subsarcolemmal and interfilillar mitochondria: effects of aging and lifelong calorie restriction. *Mech Ageing Dev*. 2009;130:297-307.

Hong SE, Heo HS, Kim DH, Kim MS, Kim CH, Lee J, Yoo MA, Yu BP, Leeuwenburgh C, Chung HY. Revealing system-level correlations between aging and calorie restriction using a mouse transcriptome. *Age (Dordr)*. 2009.

Joyner-Matos J, Predmore BL, Stein JR, Leeuwenburgh C, Julian D. Hydrogen Sulfide Induces Oxidative Damage to RNA and DNA in a Sulfide-Tolerant Marine Invertebrate. *Physiol Biochem Zool*. 2009.

Kim JY, Kim DH, Choi J, Park JK, Jeong KS, Leeuwenburgh C, Yu BP, Chung HY. Changes in lipid distribution during aging and its modulation by calorie restriction. *Age (Dordr)*. 2009;31:127-42.

Marzetti E, Hwang JC, Lees HA, Wohlgemuth SE, Dupont-Versteegden EE, Carter CS, Bernabei R, Leeuwenburgh C. Mitochondrial death effectors: Relevance to sarcopenia and disuse muscle atrophy. *Biochim Biophys Acta*. 2009.

Marzetti E, Carter CS, Wohlgemuth SE, Lees HA, Giovannini S, Anderson B, Quinn LS, Leeuwenburgh C. Changes in IL-15 expression and death-receptor apoptotic signaling in rat gastrocnemius muscle with aging and life-long calorie restriction. *Mech Ageing Dev*. 2009;130:272-80.

Marzetti E, Eva Lees H, Eva Wohlgemuth S, Leeuwenburgh C. Sarcopenia of aging: underlying cellular mechanisms and protection by calorie restriction. *Biofactors*. 2009;35:28-35.

3. Publications (other)

T.C. Jackson, T.C. Foster (2009) Role of PHLPP1 in hippocampal neurons. Soc for Neurosci.

B. K. Ormerod, R. B. Speisman, A. Kumar, T.C. Foster (2009) Biomarkers predict successful versus unsuccessful aging in rats. Soc for Neurosci.

W.-H., Lee, T.C. Foster (2009) The role of SOD1 in brain aging. Soc for Neurosci.

A., Kumar, A., Rani, K., Bodinathan, T.C. Foster (2009) Selective Estrogen Receptor Agonists, PPT and DPN Differentially Regulate Hippocampal Synaptic Transmission in Estrogen Receptor alpha and Beta KO Mice. Soc for Neurosci.

K., Bodinathan, A., Kumar, T.C. Foster (2009) Influence of redox state on the afterhyperpolarization in CA1 pyramidal neurons: role for ryanodine receptor oxidation during aging Soc for Neurosci.

4. Presentations at scientific meetings

International
2009 Spring Hippocampal Research Conference, Verona Italy. Calcium homeostasis and modulation of neural function in aged brain.

National
2009 Sticht Center Conference on Aging. Cellular and molecular basis of brain aging. The Kulynych Center for Memory and Cognition Research in the J. Paul Sticht Center on Aging

UF Site Visit

On October 21, 2009 The Mcknight Brain Research Foundation Board of Trustees held a site visit at the University of Florida Mcknight Brain Institute. Presentations focused on aging and cognitive decline. Institute on Aging presenters and their topics were:

Christy Carter, Ph.D. – *The influence of increased physical activity on assessing cognitive function in aged rats after life-long caloric restriction*

Michael Marsiske, Ph.D. – *Intervening with cognition late in life*

Zvinka Zatar, M.S. - *Brain activity differences between sedentary and fit older adults: a cross-sectional MRI study*

Additionally the Special keynote address was delivered by:

Joe Verghese, M.D. Ph.D. Associate Professor of Neurology at the Elbert Einstein College of Medicine and Gertrude Feil Faculty Scholar in Neurology – *Cognitive Reserve and Cognition Remediation*

5. Presentations at public (non-scientific) meetings or events

N/A

6. Awards (other)

Associate Editor Frontiers in Aging Neuroscience 2009 – Dr. Foster

7. Faculty CV's - Please include abbreviated CV with publications for previous 12 months –

Enclosed

8. Trainees

- a. Pre-doctoral
 - Travis Jackson 2006-present
 - Karthik Bodhinathan 2006-present
 - Wei-Hua Lee 2007-present
 - Christina Aenlle 2004-2009

b. Other

Asha Rani
Olga Tchigrinova

9. Clinical/translational programs

a. New programs

- i. I am the Chair for the committee overseeing the Age-Related Memory Loss Program.
- ii. I am a member of the Search Committee for the new faculty member as part of the Age-Related Memory Loss Program.
- iii. I am the Chair for the Search Committee to find a Program Director and Professor for the Cognitive Aging and Memory Clinical Translational Research Program (CAM-CTRP).

- iv. I am a member of the Search Committee for the new Center for Translational Research in Neurodegenerative Disease.
- v. I am a member of the Institute on Aging and Pepper Center Executive Committee.
- b. Existing Clinical Studies
 - i. IOA Testosterone Trial – please see attached news release;
 - ii. Life Study – please see attached news release.

10. Technology transfer – N/A

- a. Patents applications
- b. Revenue generated from technology

11. Budget update (last year's budget and actual results - with an explanation of material variances)

Projected budget for coming year - \$1,634,217
See attached budget for IOA

12. Educational programs focusing on age related memory loss - N/A for IOA

- a. Scientific

Member of the planning committee for the Cognitive Aging Summit II.

I am the Associate Editor for a Special Topic issue of the journal Frontiers in Aging Neuroscience, which will focus on mechanisms for selective vulnerability of brain regions and processes related to cognitive decline. This issue is based on ideas generated at the first Cognitive Aging Summit.

I will be hosting the Third Annual McKnight Brain Research Foundation Inter-Institutional meeting this year.

- b. Public

13. Collaborative programs with other McKnight Institutes, institutions and research programs - N/A for IOA

14. Collaborative program with non McKnight Institutes, institutions and research programs

N/A for IOA

15. Briefly describe plans for future research and/or clinical initiatives

For IOA – the new Cognitive Aging and Memory Director, expected to be on board in 2010, will set the research agenda

- a. Behavioral studies are planned which will test the idea that memory consolidation deficits are an early marker of age-related cognitive decline.
- b. We will characterize early (i.e. middle-age) changes in signaling pathways from the NMDA receptor to transcription, which we hypothesize mediate the stabilization/maintenance/consolidation of memory.

c. We will develop and implement the transfer of genes to reduce oxidative stress (SOD, catalase) and promote cell health and synaptic growth (estrogen receptor).
d. We will begin to test the hypothesis that estrogen receptor beta is a negative regulator of estrogen receptor alpha and contributes to the reduced effects of estrogen in rejuvenating the hippocampus.

16. If applicable, please provide endowment investment results for the report period.

See enclosed.

17. Were any funds used for a Prohibited Purpose during the report period? - No

18. Do you recommend any modification to the Purpose or mandates in the Gift Agreement?
No

19. Did all activities during the report period further the Purpose? Yes

20. Please describe any negative events (loss of personnel, space, budget, etc.) that occurred during the report period and the possible impact on carrying out the Gift Agreement.
Not applicable.

21. Please provide any general comments or thoughts not covered elsewhere – a response is not required. Please respond only if you would like to add something not otherwise covered elsewhere.

IOA In early October, 2009 a national search committee was established, Chaired by Tom Foster, Ph.D., charged with filling the position of director of the Cognitive Aging and Memory Clinical Translational Research Program. Achieving this objective has been our highest priority. To date we have lined-up for interviews five highly qualified candidates. We continue to receive applications. We plan to fill the CAM director position within this year.

Dr. Thomas Foster

Professor of Neuroscience

McKnight Chair for Research on Aging and Memory
Investigator, McKnight Brain Institute

January 12, 2010

University of Florida Foundation, Inc.
 McKnight Endowments

Evelyn F. McKnight Chair for Brain Research in Memory Loss (Fund 007889/90)
 Evelyn F. McKnight Brain Research Grant (Fund 008057/58)

Annual Endowment Spendable Transfer History

	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010 9/30/2009	Totals thru 9/30/2009
F007889/90	3,437.50	99,417.20	100,868.99	125,768.08	124,126.72	127,812.64	134,383.76	161,018.86	178,826.81	165,660.22	35,851.80	1,257,172.58
F008057/58	-	648,384.08	657,852.35	651,800.65	729,335.04	843,130.64	881,346.64	1,056,031.17	1,172,824.40	1,086,474.59	235,132.29	7,962,311.85
	3,437.50	747,801.28	758,721.34	777,568.73	853,461.76	970,943.28	1,015,730.40	1,217,050.03	1,351,651.21	1,252,134.81	270,984.09	9,219,484.43

Values as of September 30, 2009

	Book Value	Market Value	Estimated FY2010 Endowment Spendable Transfers
F007889/90	3,995,676.90	4,094,438.28	143,407.19
F008057/58	25,967,781.35	26,853,176.34	940,529.17

University of Florida seeking older males for national testosterone therapy trial

Nov. 2, 2009

ATTENTION EDITOR: Photo available at www.news.health.ufl.edu/media/recentNews.aspx

For media inquiries call Czerne M. Reid at 352-273-5814 or e-mail czerne@ufl.edu.

GAINESVILLE, Fla., — The University of Florida is recruiting men older than 65 to take part in a large national study to test whether giving testosterone to men who have depleted levels can help improve health and physical and mental function.

Testosterone is the main male hormone and it facilitates a healthy metabolism and promotes muscle and bone strength, sex drive, energy level and memory. As men age their testosterone levels fall. Lower than normal testosterone levels in the blood can lead to low energy, sexual dysfunction, physical impairment and anemia.

Previous research suggests that some of those conditions that men experience as they age might be associated with declining testosterone levels. Up to 5 million men in the United States are estimated to have low testosterone levels. Raising older men's blood testosterone to levels that are normal for younger men might help them function better in daily life.

"We want to see if replacing testosterone in people in whom it is decreased would avert many of the symptoms related to lowered testosterone," said principal investigator Marco Pahor, M.D., director of the UF Institute on Aging.

There has been much controversy surrounding testosterone therapy and who should use it. Many studies have investigated giving testosterone to men who did not have lowered levels. Investigators hypothesize that the testosterone therapy will be most effective in people who have lowered levels, rather than in those with normal levels.

"This study is important because testosterone products have been marketed for many years as treatments for a variety of conditions," said Evan C. Hadley, M.D., director of NIA's Division of Geriatrics and Clinical Gerontology which is the primary funder of the trial. "We hope this trial will establish whether testosterone therapy results in clear benefits for older men."

In young men who don't produce enough testosterone, treatment with the hormone generally leads to improved sexual function, muscle mass, feelings of well-being and improvements in red blood cell counts. But in older men, whose decline in testosterone levels is a result of aging, the potential benefits or even safety of such therapy is unknown.

(MORE)

The Testosterone Trial, a randomized placebo-controlled double-blind study, seeks to fill that information gap.

“Such rigorous scientific research is needed to test whether this decline is inevitable, whether it is delayable, or whether it is a trajectory that can be changed through changes in lifestyle or with medications,” said William Hazzard, M.D., a professor of medicine and a gerontologist at University of Washington and Puget Sound VA Medical Center, who is not involved in the research. “Studies like this will help us do a better job when we care for the elderly, and that’s the whole point.”

Funded mainly by the National Institute on Aging, the study, nicknamed “The T Trial” will examine five health areas — sexual function, physical performance, mental sharpness, vigor and anemia, all of which have been shown to be associated with age-related decrease in testosterone levels.

The six-year study of 800 men will be conducted at 12 sites around the country, namely, UF, the Albert Einstein College of Medicine, the Baylor College of Medicine, Boston University, Northwestern University, the University of Alabama-Birmingham, the University of California-Los Angeles, the University of California-San Diego, the University of Minnesota, the University of Pittsburgh, the University of Washington and Yale University.

To be eligible for participation in the study, men must be 65 years or older, have testosterone levels below a certain concentration as measured by a blood test, and have symptoms and measurable signs of movement restriction, low libido or low vitality. Participants will be in the study for two years and will receive study-related health and medical screening at no cost. Men who have prostate cancer are not eligible.

First, blood tests will be done to determine testosterone levels and eligibility for the study. In the first year of participation, subjects will be given a gel to be applied to the skin every day. Men will be randomly assigned to either of two groups. One group will get a gel that contains testosterone, designed to keep levels of the hormone about the same as generally exist in young men. The prescription drug, called AndroGel, is provided by Solvay pharmaceuticals.

The second group will get a gel that does not contain testosterone. Participants will not be told which of the gels they receive, and neither will study staff. Evaluations will be conducted throughout the year at the research clinic to measure potential effects of the therapy. In the second year of participation, men will be asked to make one follow-up clinic visit and take one phone call in which they answer a number of questions.

The study has rigorous safeguards to protect patients’ safety, researchers say. Subjects will be compensated for their participation. Men older than 65 who are interested in enrolling in the trial or getting more information should call 352-273-5919 or 866-386-7730 and ask about “The T Trial.”

UF TO RECEIVE \$29.5 MILLION IN RECOVERY ACT FUNDS TO BEGIN STUDY OF WHETHER EXERCISE PREVENTS DISABILITY IN OLDER ADULTS

Oct. 1, 2009

ATTENTION EDITOR: Photo available at www.news.health.ufl.edu/media/recentNews.aspx.

For media inquiries call Czerne M. Reid at 352-273-5814 or e-mail czerne@ufl.edu.
GAINESVILLE, Fla. — The University of Florida will receive \$29.5 million in federal stimulus funds over the next two years from the National Institute on Aging to begin a six-year study on whether a program of structured physical activity can prevent or delay major movement disability in older adults.

When completed, funding for the project is expected to total more than \$60 million from the NIA, including the \$29.5 million through the American Recovery and Reinvestment Act of 2009. The total will amount to the largest federal award to UF, as well as fund the largest study to prevent mobility disability in seniors.

Many studies have shown that regular exercise improves physical performance. And the U.S. Department of Health and Human Services recommends that adults engage in at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity aerobic activity each week, as well as muscle-strengthening activities.

Still, little is known about whether exercise can actually help prevent major mobility disability, defined as the inability to walk a quarter of a mile, or four blocks.

For older adults, staying off disability could help them maintain their physical independence and enhance the quality of their later years.

“We all know that physical activity is good for our health, but the definitive evidence whether it can prevent disability in older people — whether you can prevent them from being unable to walk — is lacking,” said principal investigator Marco Pahor, M.D., director of the UF Institute on Aging.

The new study, called the Lifestyle Interventions and Independence for Elders, or LIFE study, seeks to fill that gap in scientific knowledge. This phase 3 randomized controlled trial of 1,600 sedentary adults ages 70 to 89

who are at risk of mobility disability will be conducted at eight institutions around the country. It expands on the results of a pilot study that found the rate of onset of mobility disability was lower among a group of older adults who engaged in a structured exercise program for a year, compared with a group of seniors

who took part in a health education program for a year.

“This grant reflects NIH’s recognition of the excellence of Dr. Pahor’s work in this area over the past 10 years,” said David S. Guzik, M.D., Ph.D., UF’s senior vice president for health affairs and president of the

(MORE)

UF&Shands Health System. "It represents the kind of translational research that UF will increasingly be in a position to conduct."

UF is the coordinating center and a field site for the LIFE study, with other field sites at Northwestern

University, Pennington Biomedical Research Center — a campus of the Louisiana State University system,

Stanford University, Tufts University, the University of Pittsburgh, Wake Forest University Health Sciences and

Yale University.

Recruitment will begin in early 2010. Eligible participants will be randomly assigned either to take part in a program of moderate-intensity physical activity or a health education program on successful aging. Individuals will be followed for up to three-and-a-half years.

It will be the largest randomized controlled trial ever conducted on physical activity in older adults, and the size of the study will allow scientists to examine the effect of physical activity on a large number of outcomes in ways that have not been possible before.

Primarily, the study seeks to gauge whether there are long-term effects of physical activity interventions on major mobility disability. Investigators will also examine the effects of physical activity on a number of factors, including cognitive function, serious fall injuries, disability in basic activities of daily living, cardiovascular events and hospitalization and nursing home admission. They will also examine quality-of-life measures such as depression symptoms, sleep quality, stress and satisfaction with life.

In addition, the project will allow an assessment of the cost effectiveness of walking programs for the elderly, and whether the money spent on such programs can help reduce medical expenses for injuries and illness that might otherwise result from lack of adequate physical activity.

EDITORS: STORY CAN END HERE.

As life expectancy increases in the United States, the care of older adults has become a major issue for clinical practice as well as public health policy. Average life expectancy today is 77.7 years — almost seven years more than in 1970, according to CDC data.

As adults age, many lose vitality and the inclination or ability to engage in physical activities as simple as walking. Older adults ages 60 to 85 spend almost 60 percent of their time — more than eight of their waking hours — in sedentary behaviors, according to data from the National Health and Nutrition Examination Survey.

The length of time spent in sedentary behaviors has been associated with increased risk of weight gain and various diseases, including diabetes and heart disease. And people who lose their mobility have higher rates of sickness, hospitalization and death than others who do not have disabilities.

"Limitations in walking ability compromise independence, and contribute to the need for assistive care," said Evan C. Hadley, M.D., director of NIA's Division of Geriatrics and Clinical Gerontology, whose program is overseeing the trial. "Older people with impaired walking are less likely to remain in the community, have higher rates of certain diseases and death, and experience a poorer quality of life. A successful intervention might help prevent these bad outcomes."

UF | College of Medicine
UNIVERSITY of FLORIDA



McKnight Brain Institute Report

Prepared for the McKnight Brain Research Foundation

Annual Report
of the
McKnight Brain Institute
& Institute on Aging

University of Florida College of Medicine





Evelyn F. and William L. McKnight Brain Institute

PO Box 100015
Gainesville, FL 32610-0015
352-273-8500 Tel.
352-846-0185 Fax
www.mbi.ufl.edu

January 11, 2010

Tiffany Ahlfeld and Teresa Borchek
Foundations & Endowments Specialty Practice
SunTrust Banks, Inc.
Mail Code FL-ORL-2160
300 South Orange Ave., Suite 1600
Orlando, FL 32801
Tel: 407-237-5703
Fax: 407-237-5604
Dear Tiffany and Teresa,

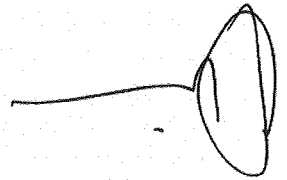
I hope you both had a great holiday and will also have a Wonderful New Year!

This short letter is in response to your email of November 19th requesting I provide an Annual Report to the McKnight Brain Research Foundation Trustees for our McKnight Brain Institute activities and also a completed Annual Report Template. As in previous years, I am happy to provide such Annual Report information, but in light of the renegotiated and very recently signed Gift Agreement where the greater part of the funds are now being provided to Dr. Pahor's Aging Institute for the Cognitive Aging and Memory Clinical Translational Research Program ("CAM-CTRP") initiative, and also to Dr. Foster's Age-Related Memory Loss Program Committee (made up of Drs. Foster, Notterpek, Ashizawa and Leuwentburg) for future recruitments and ARML research programs, filling out of the template would really not be informative since there are no new "Postdocs" or "Publications" etc to report (this should be provided by Drs. Foster and Pahor, and any questions can also be directed to Dean Michael Good and Vice President David Guzik as also referred to in the new agreement); instead, I will provide a very brief update of what has been accomplished since the recent renegotiated Gift Agreement. I also will provide here budget information that mainly consists of dollar amounts transferred to the UF Aging Institute, funds available to complete our recruitment of an ARML researcher to the MBI, previously committed funds to a McKnight recruit and projects underway prior to the new Gift Agreement, funds available to Dr. Foster's committee for decisions on directions for future investments of these ARML funds, and a modest grant to a new clinical trial on enhancing cognitive prowess through normal aging to be conducted at a Gainesville retirement community.

There have been two meetings of the ARML Program Committee where, as summarized by Dr. Foster, "...Information on the MBRF budget was shared with the committee. It was decided that we should focus on the recruitment and hire of Dr. Jen Bizon. The committee recommended that laboratory space for her be identified prior to her next visit and the interview process for her spouse be fast-tracked. It was recommended that we should aim for July 1, 2010 as a potential start date for Drs Bizon and Setlow, a timeline that is

The Foundation for the Gator Nation
An Equal Opportunity Institution

Dennis A. Steindler, Ph.D.
Executive Director
The McKnight Brain Institute of the University of Florida
Joseph J. Bagnor/Shands Professor of Medical Research



Sincerely,

Thank you,

Below are the financial data referred to above, and please do not hesitate in contacting me if I can provide any additional needed information to show our progress and dedication to the spirit of the MBRRF gift and truly enhancing cognitive function during aging.

can have lifelong learning and memory the way it should be to afford a wonderful quality of life for all. as they evolve during aging. Our major mission is to enhance the normal functioning and plasticity so that we investigators are still totally committed to advancing our understanding of normal and abnormal brain functions and systems biology of the brain during normal development and aging, and all of our basic science and clinical in the Institute are still moving forward, with great discoveries being made into the genetics, molecular, cellular CAM-CTRP program that will hopefully be recruited by Dr. Pahor soon). In the meantime, our research efforts with the Aging Institute, and by new investigators to be hired in the very near future (including a Director of the platform, to test memory improvement in a well-designed, measured and carefully selected population of senior citizens. I hope that this translational effort is just one of many to be launched by our Institute, in collaboration with the Aging Institute, along with physical exercise training using a novel video measures for applying Brain Fitness programs, along with physical exercise training using a novel video will be carried out in collaboration with Posit Science in California who has designed the software and outcome next few months. It was determined that a "Platform for Multi-Modal Cognitive Enhancement in the Elderly" equipment (study computers, etc) purchased, and things put in place to carry out this study at The Village in the Neuropsychologists, Biomechanist, Statistician), a Clinical Research Coordinator hired, IRB applied for, Committee for this study has been assembled (including a physician liaison from The Village, behavioral and exercise regimens for potential deterrence of cognitive decline in the aged. A Steering Village Retirement Community in Gainesville, "The Village Wellness Study", that we designed to test translation, funds (\$30K) have been provided by the Executive Director to a new study to take place at The and near-future translational applications of this research toward new therapies for ARML. Along this line of our MBI, since these are two gifted investigators who would contribute a great deal toward memory research in recruitment of Drs. Bizon and Setlow would be a tremendous advance toward the goals of ARML research in agreeable to them..." The MBI Executive Director, who is chairing this recruitment committee, agrees that the

	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14
Spendable Income McKnight Research -						
(Balance after \$1.6m to Aging Institute)		1,846,330	1,713,576	1,888,249	2,155,230	2,824,749
Current Faculty - Matthew Sarkisian	\$ 91,154	\$ 127,800	\$ 131,634	\$ 33,896		
Salary + Fringe Benefits						
Start-up						
Less: Transfer						
Remaining Balance		\$ 279,396				
Pending Recruitment						
Salary + Fringe Benefits Estimated Start Date Jan 2010						
Associate Professor	\$ 87,863	\$ 180,997	\$ 186,427	\$ 96,010		
Start-up	\$ 300,000	\$ 175,000	\$ 175,000	\$ 175,000	\$ 175,000	\$ 175,000
Associate Professor						
Start-up						
Associate Professor	\$ 278,225	\$ 278,225	\$ 278,225			
Grants*	\$ 1,073,284	\$ 765,856	\$ 673,548	\$ 271,010	\$ 175,000	
TOTAL EXPENSES						
Subtotal: (Spendable Income minus Expenses)	\$ 773,047	\$ 947,720	\$ 1,214,701	\$ 1,884,220	\$ 2,649,749	
Projected Income (estimate)	\$ 940,529	\$ 940,529	\$ 940,529	\$ 940,529	\$ 940,529	\$ 940,529
Net Spendable Income:	\$ 1,713,576	\$ 1,888,249	\$ 2,155,230	\$ 2,824,749	\$ 3,590,278	

*\$30K Neurology Coordinator for The Village (three year commitment)
 MBI McKnight Flyer Grants - These were Research Studies in place prior to the modified McKnight Gift Agreement.

UF Foundation Endowment Reports

University of Florida College of Medicine
Annual Report
of the
McKnight Brain Institute
& Institute on Aging
Prepared for the McKnight Brain Research Foundation



**EVELYN F. MCKNIGHT CHAIR FOR BRAIN RESEARCH IN
MEMORY LOSS**

ENDOWMENT SUMMARY

In 2000, the McKnight Brain Research Foundation gave the University of Florida Brain Institute \$15 million to support fundamental research into memory loss associated with aging. Evelyn F. McKnight, a nurse, and her husband, William, were interested in effects of aging on memory. William McKnight was chairman of the board of the 3M Corp. for 59 years before he died in 1978. Evelyn McKnight continued to advocate for memory loss research until her death in 1999. In recognition of this donation, the Brain Institute and the 210,000-square-foot building that houses its principal operations are named the Evelyn F. and William L. McKnight Brain Institute of UF. The McKnight Brain Research Foundation provides a legacy of support for research toward the understanding of memory and the specific influences of the natural aging process.

BOOK VALUE

Includes original gifts, state and company matches and additional gifts to the fund received before 09/01/09.

\$3,995,677

MARKET VALUE as of 09/30/09

Includes assets received before 09/01/09 and invested in the endowment pool on or before 10/01/09; Excludes assets not yet converted to cash.

\$4,094,438

PROJECTED SPENDABLE INCOME for 2009/10

\$143,407

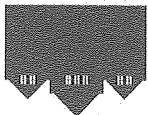
ENDOWMENT MANAGEMENT

Endowment assets are invested through the University of Florida Investment Corporation (UFICO), created in 2004 to manage UF's investment portfolios. UFICO is headed by a Chief Investments Officer who reports to a volunteer Board of Directors and to the President of the University of Florida.

FOR MORE INFORMATION, CONTACT:

Paul A. Robell
Vice President, Development and Alumni Affairs
(352) 392-5407 (probell@uff.ufl.edu)

Cindy Belknap
Director of Stewardship and Donor Relations
(352) 846-3444 (cbelknap@uff.ufl.edu)





EVELYN F. MCKNIGHT BRAIN RESEARCH GRANT

ENDOWMENT SUMMARY

In 2000, the McKnight Brain Research Foundation gave the University of Florida Brain Institute \$15 million to support fundamental research into memory loss associated with aging. Evelyn F. McKnight, a nurse, and her husband, William, were interested in effects of aging on memory. William McKnight was chairman of the board of the 3M Corp. for 59 years before he died in 1978. Evelyn McKnight continued to advocate for memory loss research until her death in 1999. In recognition of this donation, the Brain Institute and the 210,000-square-foot building that houses its principal operations are named the Evelyn F. and William L. McKnight Brain Institute of UF. The McKnight Brain Research Foundation provides a legacy of support for research toward the understanding of memory and the specific influences of the natural aging process.

BOOK VALUE *Includes original gifts, state and company matches and additional gifts to the fund received before 09/01/09.* **\$25,967,781**

MARKET VALUE as of 09/30/09 *Includes assets received before 09/01/09 and invested in the endowment pool on or before 10/01/09; Excludes assets not yet converted to cash.* **\$26,853,176**

PROJECTED SPENDABLE INCOME for 2009/10 **\$940,529**

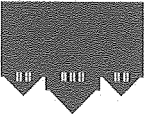
ENDOWMENT MANAGEMENT

Endowment assets are invested through the University of Florida Investment Corporation (UFICO), created in 2004 to manage UF's investment portfolios. UFICO is headed by a Chief Investments Officer who reports to a volunteer Board of Directors and to the President of the University of Florida.

FOR MORE INFORMATION, CONTACT:

Paul A. Robell
Vice President, Development and Alumni Affairs
(352) 392-5407 (probell@uffi.ufl.edu)

Cindy Belknap
Director of Stewardship and Donor Relations
(352) 846-3444 (cbelknap@uffi.ufl.edu)



University of Florida Fund Report
Prepared for the McKnight Foundation

F007889/90 Evelyn F. McKnight Chair for Brain Research in Memory Loss
Fund Administrator: Thomas C. Foster, Ph.D.

F007889 Balance in Endowment \$4,058,586.48

F007890 Spendable Income Beginning Balance \$ 462,615.28

Transferred to UF - \$ 100,000.00
Endowment transfer \$ 71,703.60
Investment Pool Earnings \$ 1,495.90

Spendable Income Balance \$ 435,814.78
Estimated Annual Transfers \$ 143,407.00 *

* estimated based on spending base (spending base is adjusted quarterly).

F008057/58 Evelyn F. McKnight Brain Research Grant
Fund Administrator: Dennis A. Steindler, Ph.D.

F008057 Balance in Endowment \$26,618,044.05

F008058 Spendable Income Beginning Balance \$ 3,268,433.20

Transferred to UF - \$ 30,000.00
Transferred to F016327 - \$ 1,634,216.60
Endowment transfer \$ 470,264.58
Investment Pool Earnings \$ 6,981.27

Spendable Income Balance \$ 2,081,462.45
Estimated Annual Transfers \$ 940,529.00 *

* estimated based on spending base (spending base is adjusted quarterly).

F016327 McKnight Brain Research Foundation Cognitive Aging and Memory Program
Fund Administrator: Marco Pahor, M.D.

F016327 Beginning balance in Fund \$1,634,216.60

Transferred to UF \$ 200,000.00
Current fund balance \$1,434,216.60



University of Florida College of Medicine

Annual Report

of the

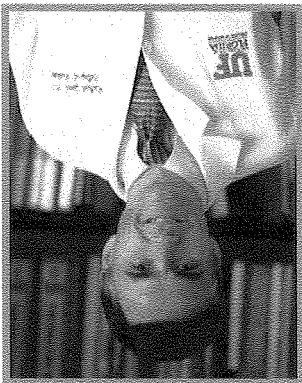
McKnight Brain Institute

& Institute on Aging

Prepared for the McKnight Brain Research Foundation

Faculty Biography/ Curriculum Vitae

1600 SW Archer Rd
 PO Box 100253
 Gainesville, FL 32610
 352-273-5810



UF NAMES NEW COLLEGE OF MEDICINE DEAN

Dec. 21, 2009

GAINESVILLE, Fla. — Dr. Michael L. Good, an anesthesiologist who helped invent sophisticated simulation systems used for medical training around the world, has been named the ninth dean of the University of Florida College of Medicine.

The appointment, the result of an exhaustive national search, was announced today by David S. Guzik, M.D., Ph.D., senior vice president for health affairs and president of the UF&Shands Health System.

“As interim dean for 18 months, Mike Good has proven himself to be an exceptional leader who has gained the confidence of the medical school’s department chairs, faculty and staff, and the enthusiastic support of hospital and university leadership,” Guzik said. “At this moment when we are building a team to transform UF and Shands — a unique collection of six colleges, five major research institutes and centers, and a major health system comprising seven hospitals — into an academic health center of national distinction, Mike Good is the right medical school dean at the right time for Florida.”

Good’s appointment as dean begins on Jan. 1, 2010.

“Dr. Good was extremely effective in leading the College of Medicine and partnering with Shands teams to open the cancer hospital,” said Tim Goldfarb, CEO of Shands HealthCare. “He has been a powerful force as chair of the board for the Florida Proton Therapy Institute in Jacksonville. We have developed a closely collaborative working relationship to build clinical programs by linking faculty expertise with hospital resources. I now look forward with great enthusiasm to working with Dean Good to accelerate our progress in the development of these and other new programs.”

Good was selected in a process that began with more than 40 highly qualified candidates, and progressed to include nine semi-finalists who made campus visits and three finalists who underwent more extensive interviews, according to Winfred Phillips, D.Sc., chair of the search committee and UF’s vice president for research.

“Dr. Good was seen by the committee and others who interviewed him as an experienced and highly effective clinician, scholar and academic administrator,” Phillips said. “He was recognized for working to promote the success of the faculty and institution, for being a superb communicator, and for always conducting himself with utmost integrity and fairness.”

(MORE)

Good said he is honored to be given the privilege of leading the University of Florida College of Medicine

as its dean.

"Faculty will continue to be the focus of my work," Good said. "Patients seek care at UF and Shands because of the unique expertise of our clinical faculty. The world looks to our scientists and research faculty for discoveries that cure disease and optimize health. And the best and brightest students come to UF for their professional education because of our talented and dedicated education faculty. I look forward to working with our faculty and ensuring that they are fully supported in their important work."

As interim dean of the College of Medicine since May 2008, Good set in motion installation of an electronic medical record system in UF faculty clinics, appointed a senior associate dean for research affairs, and filled open chair positions in neurology, surgery, neuroscience, obstetrics and gynecology, and molecular genetics and microbiology.

In a challenging fiscal environment, he fostered faculty development, including the recruitment of a nationally recognized radiation oncologist and researcher to direct the UF Shands Cancer Center, and one of the nation's leading Alzheimer's disease researchers to lead a new research center in Alzheimer's and other neurodegenerative diseases.

In addition, Good reshaped and enhanced College of Medicine support that enabled the university to receive a \$26 million National Institutes of Health's Clinical and Translational Science Award to transform laboratory discoveries into patient therapies, oversaw the transition of patient care from Shands at AGH and the Shands at UF emergency department to the Shands Cancer Hospital at UF, and worked to elevate the College of Medicine's physician assistant program to "school" status.

He was also instrumental in development, helping raise more than \$60 million in gifts and pledges during the 2008-2009 academic year.

After receiving his medical degree at the University of Michigan Medical School in 1984, Good arrived at UF, where he completed a residency in anesthesiology before joining the faculty in 1988. During this period, Good teamed with UF colleagues to invent the Human Patient Simulator, a sophisticated computerized teaching tool that is now used in health-care education programs throughout the world.

In 1994, Good became chief of staff and system medical director at the VA. He returned to UF Gainesville and two years later was named chief of staff and system medical director at the VA. He returned to UF and Shands in 2003 and was appointed senior associate dean for clinical affairs in 2005. In January 2009, he was appointed the Folke H. Peterson Dean's Distinguished Professor in the College of Medicine. Good and his wife, Danette, have five children — a son who is working in electrical engineering research, two daughters in college, and a son and daughter in high school.

Established in 1956, the College of Medicine is the leading educator of physicians, physician assistants and biomedical scientists for the state of Florida. In association with Shands HealthCare, College of Medicine faculty physicians in Gainesville and Jacksonville provide advanced medical care to residents of Florida and patients from around the world. The college earns more than \$200 million in external grants and contracts for research each year, part of a budget that exceeds \$600 million annually.

Assistant Professor, Department of Internal Medicine and Geriatrics, Catholic University, Rome, Italy, March 1986 - June 1996.
 Tenured from 1991 through 1999.
 Contract Professor of Geriatrics and Gerontology, Catholic University, College of Medicine, Rome, Italy, November 1999 - 2000
 Contract Professor, Department of Pharmacology, College of Medicine, University of Florence, Florence, Italy, November 1994 - 1999
 Associate Professor of Preventive Medicine, University of Tennessee, Memphis, TN, July 1996 - June 1999
 Professor of Preventive Medicine with tenure, Department of Preventive Medicine, University of Tennessee, Memphis, July 1999
 Professor of Internal Medicine, and Gerontology and Geriatrics with tenure, Wake Forest University School of Medicine, Winston Salem, NC, July 1999 - January 2005
 Director, Sticht Center on Aging and Rehabilitation, Wake Forest University School of Medicine, Winston Salem, NC, July 1999 - January 2005
 Deputy Associate Dean for Research, Wake Forest University School of Medicine, Winston Salem, NC, July 2002 - July 2004
 Acting Director, Geriatric Research, Education and Clinical Center (GRECC) North Florida, South Georgia Veterans Health System, Gainesville, FL, April 2006-January 2007
 Director Institute on Aging, University of Florida, Gainesville, FL, February 2005-present

ACADEMIC APPOINTMENTS

Marco Pahor, MD
 Professor and Chair
 Department of Aging and Geriatric Research
 College of Medicine
 Director Institute on Aging
 University of Florida
 1329 SW 16th Street, Room 5263
 Gainesville, FL 32608
 PO Box 100107, zip 32610-0107
 Phone (352) 265-7227
 Fax (352) 265-7228
 E-mail mpahor@ufl.edu

ADDRESS and CURRENT POSITION

DATE January 2010

CURRICULUM VITAE
 Marco Pahor, M.D.

Marco Pahor, M.D.

Professor with tenure and Chair department of Aging and Geriatric Research, College of Medicine, University of Florida, Gainesville, FL, February 2005-present

HOSPITAL APPOINTMENTS

Assistant Physician, Outpatient Geriatric Clinic, University Hospital A. Gemelli, Rome Italy, March 1986 - January 1991

Chief Physician, Outpatient Geriatric Clinic, University Hospital A. Gemelli, Rome Italy, February 1991 - June 1996

Associate Professor, Preventive Medicine, UT Medical Group, Memphis, July 1996 - July 1999

Chief Section on Gerontology and Geriatrics, Department of Internal Medicine, Wake Forest University School of Medicine, Winston Salem, NC, July 1999 - January 2005

EDUCATION

Undergraduate
Baccalaureate in Biological Sciences, Lycee Chateaubriand, French School, Rome, Italy, June 1974

Graduate
Medical Doctor degree, Catholic University, Rome, Italy, November 1974 - November 1980

Internships
Internal Medicine, University Hospital A. Gemelli, Rome, Italy, November 1977 - July 1978
Internal Medicine, Martigny Hospital, Martigny, Switzerland, August 1-31, 1978
Geriatrics, University Hospital A. Gemelli, Rome, Italy, September 1978 - November 1980
Cardiology, Sahlgrenska Hospital, Gothenburg, Sweden, August 1-31, 1979

POSTDOCTORAL TRAINING

Residency
Internal Medicine and Geriatrics, University Hospital A. Gemelli, Rome, Italy, December 1980 - February 1985

Postgraduate
Specialty Thesis in Geriatrics and Gerontology, Catholic University, Rome, Italy, November 1980 - November 1984, with honors

Specialty Thesis in Internal Medicine, Catholic University, Rome, Italy, November 1985 - July 1990, with honors

CERTIFICATION

Geriatrics Specialty Board Italy, November 1984
Internal Medicine Specialty Board Italy, July 1990

LICENSE

Italy, Rome, License # 29822, December 1980, active
Tennessee, Distinguished Faculty License # MD 28879, January 1997-August 2000
North Carolina, Faculty License # 9901366, November 1999-August 2005
Florida, Medical Faculty Certificate #1589

HONORS

Italian Society of Internal Medicine for his scientific contribution in 1987
Italian Society of Cardiology for the best study on the therapy of hypertension with
angiotensin converting enzyme inhibitors in 1989.
Italian National Academy of "Lincei" in recognition and appreciation for the studies of
pharmacoepidemiology in the elderly in 1989.
US Department of Health and Human Services, Public Health Service, National Institutes of
Health, in recognition and appreciation for scientific contributions and administrative
oversight during the planning and development of the Women's Health and Aging Study
(WHAS), 1994.
US Department of Justice, Immigration and Naturalization Service, Alien of Extraordinary
Ability for his outstanding academic, scientific and professional achievements, October 1996
Memphis Hypertension Preventive Medicine Coalition, for his invaluable voluntary assistance
in the screening, monitoring and education of Memphis/Shelby County Residents for high
Blood Pressure, 1998

OTHER PROFESSIONAL EXPERIENCE

Lieutenant Medical Officer, "Carabinieri" headquarters, Rome, Italy. 10/1982 - 1/1984
Visiting Scholar at the Department of Physiology and Pharmacology, Strathclyde University,
Glasgow, United Kingdom, October-November 1986

Journal: Journal of Gerontology Medical Sciences, Editorial Board, November 2004-present

Journal: Aging, Clinical and Experimental Research; Consulting Editor. November 2000-present.

Journal: Journal of the American Geriatrics Society; Associate Editor. August 1999-July 2000.

Journal: Journal of the American Geriatrics Society; Editor for International Affairs. July 1996-August 1999.

Journal: Controlled Clinical Trials in Cardiovascular Medicine; Assistant Editor. January 2000-March 2005.

Journal: Pharmacological Research; Field Editor for Pharmacoeconomics and Pharmacovigilance. December 1998-present.

Journal: Nutrition, Health and Aging; Editorial Board. July 2002-present.

Book: The Women's Health and Aging Study. Health and social characteristics of older women with disability. Editors: Guralnik JM, Fried LP, Simonsick EM, Kasper JD, Lafferty ME, Salive ME, Phillips CL, Cruz JV, Corti MC, Ferrucci L, Pahor M, Brock DD, Skinner EA. National Institute on Aging. NIH publication No. 95-4009, Bethesda 1995.

Peer review board of the following journals:

- Age Ageing
- Aging
- American Journal of Cardiology
- American Journal of Hypertension
- American Journal of Medicine
- Cancer
- Cardiovascular Drugs and Therapy
- Circulation
- Diabetes Care
- Drugs and Aging
- European Journal of Epidemiology
- Hypertension
- JAMA
- Journal of the American College of Cardiology

EDITORIAL APPOINTMENTS

Supervisor of the cardiovascular research laboratory at the Catholic University, Rome, Italy, 1979-1990. The areas of research included ventricular arrhythmias, myocardial hypertrophy, and the aging heart in experimental in vivo and in vitro animal models.

Visiting Scientist, Epidemiology, Demography and Biometry Program, National Institute on Aging, Bethesda, MD, during a total period of 12 months, 1992-95.

Consultant for the European Economic Community project to identify pharmacoepidemiologic databases in Europe, EC contract #BMH-92-0010GB, 1993.

WFUSM - Director, Sticht Center on Aging and Rehabilitation, Wake Forest University
School of Medicine, Baptist Medical Center, Winston Salem, NC, July 1999 - January 2005
NIH NIAMS review panel RFA: AR-00-006 Prevention of onset, progression and disability of

University of Tennessee, Memphis. June 1998 - July 1999
Curriculum Committee of the Course of Preventive Medicine, College of Medicine, The

1999
Investigator Umberto Meduri, M.D., University of Tennessee, Memphis, June 1998 - July
on the effect of low-dose hydrocortisone infusion in patients with severe sepsis", Principal
Data Safety and Monitoring Board of the "Prospective, double-blind, randomized clinical trial

Dutch Cancer Society, Grant Review Panel, 1997

NIH, National Cancer Institute, Grant Review committee 1996

- Disease Ascertainment Committee, October 1996 - July 1999
 - Steering Committee, July 1996 - present
 - Co-chair of the Emerging Science Committee, April 1998 - July 1999
 - Chair the Substudies Committee, April 1998 - July 1999
- Bethesda, MD, University of California, San Francisco, CA, University of Pittsburgh, PA
NIH-NIA Health ABC, University of Tennessee, Memphis, National Institute on Aging,
University of Tennessee Therapeutic Protocols Committee, November 1996 - March 1997

Diagnoses Related Groups Committee, University Hospital Gemelli, Catholic University,
Rome, Italy, November 1995 - June 1996

NIH-NIA Women's Health and Aging Study, National Institute on Aging, Bethesda, MD, and
Johns Hopkins University, Baltimore, MD, steering committee August 1992 - March 1995

Steering Committee, Italian Group of Pharmacoepidemiology in the Elderly, of the Italian
Society of Gerontology and Geriatrics, Italian Council of Research, a multicenter study in 80
clinical centers throughout Italy, 1989 - 2000

Medical School Thesis Committee, Department of Internal Medicine and Geriatrics Catholic
University, Rome, Italy, 1986-1996

Steering Committee, Calcium Antagonist Reinfarction Italian Study (CRIS), a multicenter
randomized trial of verapamil in 32 clinical centers throughout Italy, 1983-1990

ADMINISTRATION, COMMITTEES AND OFFICES HELD

- Journal of the American Geriatrics Society
- Journal of the National Cancer Institute
- New England Journal of Medicine
- Pharmacological Research
- The Lancet
- Therapeutics and Clinical Risk Management
- Western Journal of Medicine

osteoarthritis, 2001

WFUSM - Substance abuse for older persons program development committee, Wake Forest University School of Medicine, Winston Salem, NC, August 1999-June 2001

AGS - Research Committee, American Geriatrics Society, February 2001- May 2004

WFUSM - Chair of the Charge Committee for the Research Advisory Committee, Wake Forest University School of Medicine, Winston Salem, NC, February 2001

WFUSM - Research Advisory Committee, Wake Forest University School of Medicine, Winston Salem, NC, July 2001 - July 2004

NIH-NIA - Special Emphasis Review Panel "Aging Intervention Testing Program" Cooperative Agreement, Bethesda November 2002.

WFUSM - Chair Planning Committee for Industry Sponsored Research, Wake Forest University School of Medicine, Winston Salem, July 2002-December 2002

WFUSM - Industry sponsored research task force, Wake Forest University Health Sciences, Winston Salem, January 2003-July 2004

WFUSM - Genomics Center oversight committee, Wake Forest University Health Sciences, Winston Salem, January 2003-December 2004

WFUSM - Cancer Center oversight committee, Wake Forest University Health Sciences, Winston Salem, January 2003- December 2004

WFUSM - Non Human Primates Center oversight committee, Wake Forest University Health Sciences, Winston Salem, January 2003-December 2004

WFUSM - Neuroscience Center oversight committee, Wake Forest University Health Sciences, Winston Salem, January 2003- December 2004

National Institutes of Health, National Institute on Aging, National Cancer Institute, Comorbidity Task Force, 2003

National Institutes of Health, National Institute on Aging, Board of Scientific Counselors, 2003

American Federation on Aging Research (AFAR) National Scientific Advisory Council (NSAC) 2003

Italian Ministry of Education, University and Research (Ministero dell'Istruzione, Dell'Università e della Ricerca), Committee of Evaluation of Research (Comitato di Indirizzo per la Valutazione della Ricerca - CIVR), Panel 06 Medical Sciences, Panel member 2004-2006

National Institute of Health, Dr. Pahor has served on numerous special emphasis panels between 2002 and present.

Rebecca Crone, University of Tennessee, Memphis, PharmD student, May-July 1997, PharmD

Valeria Cardone, Catholic University, Rome, Italy, Thesis Committee, Medical Doctor Degree, 1995, Currently Practicing Physician

Claudio Pedone, Catholic University, Rome, Italy, Thesis Committee, Medical Doctor Degree, 1995, Currently, Assistant Professor, Catholic University, Rome, Italy

Andrea Manto, Catholic University, Rome, Italy, Thesis Committee, Medical Doctor Degree, 1993, Thesis Committee, Specialty in Geriatrics and Gerontology, 1997, Physician and Catholic Minister

Gianni Manigrasso, Catholic University, Rome, Italy, Thesis Committee, Medical Doctor Degree, 1994, Currently, Assistant Professor, Catholic University, Rome, Italy

Valerio Venturiero, Catholic University, Rome, Italy, Thesis Committee, Medical Doctor Degree, 1994, Currently, Assistant Professor, Catholic University, Rome, Italy

Giovanni Gambassi, Catholic University, Rome, Italy, Thesis Committee, Medical Doctor Degree, 1992, Currently Associate Professor, Catholic University, Rome, Italy

Giuseppe Pisaniti, Catholic University, Rome, Italy, Thesis Committee, Medical Doctor Degree, 1991, Currently Practicing Physician

Gianni Iacono, Catholic University, Rome, Italy, Thesis Committee, Medical Doctor Degree, 1989, Currently Practicing Physician

Antonio Sgadari, Catholic University, Rome, Italy, Thesis Committee, Medical Doctor Degree, 1986 - Currently Assistant Professor, Catholic University, Rome, Italy

TRAINING AND MENTORING RECORD

American Geriatrics Society (1992 - present)

Gerontological Society of America (1992 - present)

American Association for the Advancement of Science (1996 - present)

Italian Society of Gerontology and Geriatrics (1981 - 1999)

International Society for Heart Research (1988 - 1993)

International Society of Cardiovascular Therapy (1989 - 1993)

SOCIETY MEMBERSHIPS

Marco Pahor, M.D.

Clinical Research Investigator / Coordinator Certificate Program. Wake Forest University

TEACHING ACTIVITIES

- Mauro Di Bari, MD, University of Tennessee, Memphis, August 1998 - December 1999, Masters of Science in Epidemiology expected in 1999, Currently Associate Professor, Wake Forest University School of Medicine, Winston Salem, NC
- Lonneke Franse, MPH, University of Tennessee, Memphis, Visiting Scholar, October 1998 - September 1999, Currently Researcher Dutch Cancer Society, the Netherlands
- Christy Carter, PhD, research Associate, Wake Forest University, Winston Salem School of Medicine, NC, September 1999-2005, Currently Assistant Professor, Department of Aging and Geriatric Research, University of Florida, Gainesville, FL
- Chiara Cavazzini, MD, Wake Forest University School of Medicine, Winston Salem, NC, Geriatrics Fellow, March 2000-October 2000, Currently Researcher at the Italian National Institute for Research and Health Care of the Elderly, Florence, Italy
- Graziano Onder, MD, Wake Forest University School of Medicine, Winston Salem, NC, Research Fellow, August 2000- May 2002, Research Associate, Wake Forest University School of Medicine, Winston Salem, NC
- Dora Illiasova, PhD, Wake Forest University School of Medicine, Winston Salem, NC, Research Fellow, April 2002-2005, Research Fellow, Wake Forest University School of Medicine, Winston Salem, NC
- Hal Atkinson, MD, Wake Forest University School of Medicine, Winston Salem, NC, July 2002-2005, Instructor, Wake Forest University School of Medicine, Winston Salem, NC
- Brenda Penninx, PhD, Wake Forest University, Winston Salem School of Medicine, NC, Brookdale Foundation Leadership on Aging award, May 2000-April 2002, Associate Professor, Wake Forest University School of Medicine, Winston Salem, NC
- Matteo Cesari, MD, Research Associate, Wake Forest University School of Medicine, Winston Salem, NC and later Lecturer, University of Florida, Gainesville, FL, May 2002-present
- Cinzia Maraldi, MD, Research Fellow, University of Florida, Gainesville, FL, November 2004-October 2006
- Irene Mangani, MD, Research Fellow, University of Florida, Gainesville, FL, January 2005-June 2006
- Todd Manini, PhD, Assistant Professor, University of Florida, Gainesville, FL, August 2006-Present
- Steve Anton, PhD, Assistant Professor, University of Florida, Gainesville, FL, June 2007-Present

School of Medicine. Designed and taught the course. Ethics and integrity in clinical research. Spring 2000

Course of Pharmacoepidemiology (course # 861), Masters of Science in Epidemiology, The University of Tennessee, Course Director, 3 credit hours, 9 students, designed and taught the course. Spring 1999-Summer 1999.

Preventive Medicine (course # 111), College of Medicine, The University of Tennessee, Memphis, 3 credit hours, 160 students, designed and taught 1 lecture, taught course Journal Clubs, 1996-1999.

Intervention trials (course # 823), Masters of Science in Epidemiology, The University of Tennessee, Memphis, 3 credit hours, 9 students, Designed and taught 1 lecture. Spring 1999-Summer 1999.

Course of Pharmacoepidemiology, Post Doctoral Training Program in Pharmacology, Department of Pharmacology, University of Florence, 3 credit hours, 10 students, designed and taught 8 lectures, 1994-1999.

Course of Pharmacoepidemiology for the Italian Society of Gerontology and Geriatrics, Catholic University, Rome, Italy, Course director, 2 credit hours, 20 students, designed and taught the course. September 1997.

Course of Geriatric Outpatient care. Post doctoral training in Geriatrics and Gerontology. Catholic University, Rome, Course director, designed and taught the course, 3 credit hours, 20 students, 1992-1996.

Course of Medicine. Post doctoral training in Internal Medicine. Catholic University, Rome, designed and taught 4 lectures, 3 credit hours, 20 students, 1994-1996.

Course of Drug Use in the Elderly for health care professionals. Catholic University, Rome, designed and taught 8 lectures, 45 students, 1994 -1995.

Course of Geriatric Assessment. Catholic University, Rome, designed and taught 4 lectures, 45 students, 1993.

ACTIVE PEER REVIEWED GRANT SUPPORT

ACTIVE

1. Funding agency: NIH, Award name/ID Number: NIH/NIA 1 U01 AG022376-01, Project title: Physical Exercise to Prevent Disability - LIFE Study - Lifestyle Interventions For independence in Elders - A multicenter randomized controlled trial of physical exercise to prevent major mobility disability, Principal Investigator: Marco Pahor, M.D., Award dates: 09/01/09-08/31/15, Total amount: \$84,000,000.

2. Funding Agency: NIH NIA P30 AG028740-01. Project title: Claude D. Pepper Older Americans Independence Center (OAI), Principal Investigator: Marco Pahor, MD, Award dates: 4/1/07-3/31/12 Total amount: \$3,800,000.

1. Funding Agency: NIH, Award name/ID Number: NIH-NIA R01, Project title: Exceptional Aging: 12 year trajectories to function, Principal Investigator: Marco Pahor, M.D, Subcontract with U. of Pittsburgh Dr. Anne Newman, Award dates: 09/15/04-09/14/07, Total amount: \$935,760. Dr. Pahor has withdrawn from this grant on 1/31/05 when he relocated to the University of Florida
2. Funding Agency: NIH, Award name/ID Number: NIH-NIA P30 AG021332-01, Project title: ACE inhibition and novel cardiovascular risk factors. Award dates 2/1/02 - 1/31/06 Total amount: \$1,956,329.
3. Funding Agency: NIH, Award name/ID Number: NIH-NIA P30 AG021332-01, Project title: Gene Polymorphisms and Prevention of Disability. Award dates 8/1/01-7/31/06, Total amount: \$1,661,938.
4. Funding Agency: NIH, Award name/ID Number: NIH-NIA P30 AG021332S, Project title: D. Pepper Older Americans Independence Centers Supplement: "Skeletal Muscle Metabolism", Principal Investigator: Marco Pahor, M.D. Award dates: 07/01/03-06/30/05, Total amount: \$142,000. Dr. Pahor has withdrawn from this grant on 1/31/05 when he relocated to the University of Florida
5. Funding Agency: NIH, NIA. Award name/ID Number: NIH-NIA P30 AG021332- Project title: Competitive Supplement, Principal Investigator: Marco Pahor, M.D, Award dates: 09/30/04-06/30/05 Total amount: \$145,000. Dr. Pahor has withdrawn from this grant on 1/31/05 when he relocated to the University of Florida.
6. Funding Agency: NIH, Award name/ID Number: NIH-NIA P60 AG10484, Project title: Claude D. Pepper Older Americans Independence Centers, Principal Investigator: Marco Pahor, M.D. Award dates: 07/01/97-10/31/02, Total amount: \$8,215,301.
7. Funding Agency: NIH, Award name/ID Number: NIH-NIA P60 AG10484S, Project title: Claude D.

PAST PEER REVIEWED GRANT SUPPORT

1. Funding Agency: NIH R01 AG18702-01A1, Principal Investigator: Marco Pahor, Project title: Gene Polymorphisms and Prevention of Disability. Award dates 8/1/01-7/31/06, Total amount: \$1,661,938.
2. Funding Agency: NIH R01 HL/AG68901-01, Principal Investigator: Marco Pahor, Project title: ACE inhibition and novel cardiovascular risk factors. Award dates 2/1/02 - 1/31/06 Total amount: \$1,956,329.
3. Funding Agency: NIH/NIA 1 R01 AG027529. Project title: Exercise training and inflammatory risk factors for disability, Principal Investigator: Barbara Nicklas, PhD, Marco Pahor, MD Co-investigator, 09/15/06-06/30/10, Total amount: \$401,295.
4. Funding Agency: NIH/NIA 1 R01 AG026556-01. Project title: Oxidative damage, disability and mortality in elders, Principal Investigator: Matteo Cesari, MD, Marco Pahor, MD Co-investigator, 12/1/2006-06/30/2010, Total amount: \$951,000.
5. Funding Agency: NIH NIA U01. Project title: Testosterone Trial: Principal Investigator: Snyder, Marco Pahor, MD, Co-Investigator, Total amount: \$275,441.
6. Funding Agency: NIH NIA P30AG031697-01; Project title: OAIC Coordinating Center Core, Principal Investigator: Marco Pahor, MD

Pepper Older Americans Independence Centers Supplement: "Ultrasound Characterization of Aging Rat Skeletal Muscle Tissue", Principal Investigator: Marco Pahor, M.D. Award dates: 07/01/02-06/30/03, Total amount: \$100,000

8. Funding Agency: NIH R03, Principal Investigator: Marco Pahor, Project title: Modelling Preclinical Disability in Aged Rats. The major goals of this project are to assess in animals, the predictive validity of a procedure for assessing physical performance and disability measures that are associated with the aging process. Award dates 9/1/01 - 8/31/03. Total amount: \$ 72,292.

9. Funding agency: NIH, Award name/ID Number: N01-AG-6-2103, Project title: Dynamics of Health, Aging and Body Composition (Health ABC)-Field Center, Principal Investigator: Stephen Kritchevsky, Ph.D., Dr. Pahor was Co-Principal Investigator at the Memphis Field Center, and Principal Investigator of the sub study on Cardiovascular Events and Body Composition. Beginning date of award: 3/29/96, Ending date of award: 7/22/99, Annual amount: \$762,874, Total amount: \$6,699,623.

10. Funding Agency: NIH R21AG19353 planning grant, Principal Investigator: Marco Pahor, Project title: Exercise to prevent disability and cardiovascular events. Award dates 4/1/01-3/31/03 Total amount: \$217,125

11. Funding agency: American Heart Association, Award name: Patient Care and Outcomes Research Program, ID Number: 9970066N, Project title: Cytokines, cardiovascular events, disability and body composition in an older biracial population, Principal Investigator: Marco Pahor, MD Beginning date of award: 1/1/99, Ending date of award: 12/31/02, Total amount: \$495,117.

12. Funding agency: Brookdale Foundation, Award name/ID Number: Brookdale Foundation Leadership on Aging award, Project title: The role of inflammation and health behavior in the detrimental physical health consequences of late-life depression, Tutor: Marco Pahor, M.D. Fellow: Brenda Penninx, PhD. Award dates: 07/01/2000-06/30/02, Total amount: \$100,000.

13. Funding agency: NIH, Award name/ID Number: R03 HL5995-01A1, Project title: Cost-effectiveness of treating hypertension in SHEP, Principal Investigator: Marco Pahor, MD, Beginning date of award: 7/1/98, Ending date of award: 6/30/01, Total amount: \$134,680

14. Funding agency: Italian Ministry of Research, Project title: Cytokines, heart failure, muscle mass and physical function in older adults, Principal Investigator: Marco Pahor, MD, Beginning date of award: 1/1/99, Ending date of award: 12/21/00, Total amount: \$90,000.

15. Funding agency: UT Medical Group, Award name/ID Number: R07-3236-65 Project title: Long-Acting Calcium Blockers and Cancer, Principal Investigator: Marco Pahor, MD, Beginning date of award: 5/1/97, Ending date of award: 4/30/99, Total amount: \$51,076.

16. Funding agency: NIH, Project title: Professional Services Contract: Analyses of analgesic medications in the Women's Health and Aging Study (WHAS), Principal Investigator in Memphis: Marco Pahor, MD, Beginning date of award: 1/1/98, Ending date of award: 7/31/98, Total amount: \$4,000.

17. Funding agency: NIH, Epidemiology Demography and Biometry Program, NIA, Project title: Data analyses in the Established Populations for Epidemiologic Studies of the Elderly (EPSE) database, Principal Investigator: Marco Pahor, MD, Beginning of award: 1993, Ending of award:

- 1. Funding agency: Ortho Biotech, Award name: Research Fellowship Grant, Project title: Research Fellowship: Consequences of Anemia in Aging: An In-depth Epidemiological Analysis, Principal Investigator: Marco Pahor, M.D. Award dates: 07/01/03-06/30/06, Total amount: \$175,009
- 2. Funding agency: Advanced Biomedical Research, Project title: Vitamin supplements and blood pressure control, Principal Investigator: Marco Pahor, M.D. Total amount: \$45,000
- 3. Funding agency: Ortho Biotech, Award name: Research Grant, Project title: Further exploring the health impact of anemia, Principal Investigator: Marco Pahor, M.D., Total amount: \$80,000
- 4. Funding agency: BMS, Project title: Validation of arithmetic physical performance measures in the elderly, Principal Investigator: Marco Pahor, M.D. Total amount: \$35,000
- 5. Funding agency: BMS, Project title: Evaluating physical performance measures and determining a useful set of tests in the elderly, Principal Investigator: Marco Pahor, M.D. Beginning date of award: 08/01/2000, Ending date of award: 07/31/2004, Total amount: \$50,000
- 6. Funding agency: Novartis, Project title: Multinational, multicenter, double-blind, randomized, placebo controlled, parallel group study comparing the efficacy of intravenous zoledronic acid in preventing secondary osteoporotic fractures after a hip fracture (HORIZON), Principal Investigator: Marco Pahor, M.D. Total amount: \$75,000
- 7. Funding agency: Pfizer, Award name/ID Number: BG99-395, Project title: A randomized, double-blind, placebo controlled, five parallel group study of the effect of CP-424, 391 on physical performance and body composition in older subjects, Principal Investigator: Marco

PAST INDUSTRY GRANT SUPPORT

- * The dollar amount of financial support earned in Italy is not comparable to that earned in the US. In Italy, grants do not support faculty salary which in general is paid by the Italian Government. Frequently one project is co-funded by more than one agency.
- 18. Funding agency: Italian National Council for Research, Project title: Italian Group of Pharmacoepidemiology in the Elderly (GIFA), Principal Investigator: Pierugo Carboni, Principal Investigator of the Coordinating Center: Marco Pahor, MD. Beginning of award: 1988, Ending of award: 1994*
- 19. Funding agency: Italian Ministry of Research, Project title: Calcium channel blocker use and risk of bleeding, Principal Investigator: Marco Pahor, MD, Beginning of award: 7/1995, Ending of award: 6/1996*
- 20. Funding agency: Italian Ministry of Research, Project title: Risk of adverse drug reactions to digoxin in older patients, Principal Investigator: Marco Pahor, MD, Beginning of award: 7/1993, Ending of award: 6/1994*
- 21. Funding agency: Italian National Council for Research, Project title: Calcium Antagonist Reinfarction Italian Study (CRIS), Principal Investigator: Pierugo Carboni, Co-Investigator of the Coordinating Center: Marco Pahor, MD. Beginning of award: 1983, Ending of award: 1988*

1995*

Pahor, M.D. Beginning date of award: 11/01/99, Ending date of award: 10/31/01, Total amount: \$400,000.

8. Funding agency: Merck, Award name/ID Number: 172-001, Project title: Effects of Angiotensin Receptor Blockade on PAl-1 and Interleukin-6: Comparison of Losartan Versus Placebo, Principal Investigator: Marco Pahor, MD, Beginning date of award: 7/2/98, Ending date of award: 6/30/00, Total amount: \$49,980.

9. Funding agency: Merck, Project title: A multicenter double blind randomized parallel-group placebo controlled study to investigate the antihypertensive efficacy and safety of losartan in African Americans with mild to moderate hypertension, Principal Investigator at the Memphis site: Marco Pahor, MD, Beginning date of award: 4/1/98, Ending date of award: 3/31/99, Total amount: \$61,000.

10. Funding agency: Merck, Project title: Serum uric acid, diuretic treatment and risk of cardiovascular events in the Systolic Hypertension in the Elderly Program (SHEP), Principal Investigator: Marco Pahor, MD, Beginning date of award: 1/31/99, Ending date of award: 1/30/00, Total amount: \$29,885.

11. Funding agency: Bristol Myers Squibb, Project title: Fosinopril versus Amlodipine Comparative Treatments Study (FACTS), Principal Investigator: Marco Pahor, MD, Beginning date of award: 7/2/98, Ending date of award: 12/31/99, Total amount: \$150,000.

12. Funding agency: Bristol Myers Squibb, Project title: Scholarship to fund data analyses in epidemiologic databases Principal Investigator: Marco Pahor, MD, Beginning date of award: 10/1/98, Ending date of award: 9/30/99, Total amount \$40,000.

13. Funding agency: Bristol Myers Squibb Italy, Project title: Effect of Pravastatin on Elevated Blood Pressure, Principal Investigator in Memphis: Marco Pahor, MD, Beginning date of award: 7/1/98, Ending date of award: 4/31/99, Total amount: \$15,000.

14. Funding agency: Novartis, Project title: Diovon Antihypertensive Long-term Use Evaluation (VALUE), Principal Investigator in Memphis: Marco Pahor, MD, Beginning date of award: 4/1/1998, Ending date of award: 12/31/2004, Total amount: \$115,078.

15. Funding agency: Bristol Myers Squibb, Project title: Comparison of omapatrilat and lisinopril on blood pressure control in hypertensive African Americans, Principal Investigator in Memphis: Marco Pahor, MD, Beginning date of award: 12/1/1998, Ending date of award: 6/30/1999, Total amount: \$33,204.

16. Funding agency: Bristol Myers Squibb, Project title: Fosinopril versus Amlodipine Cardiovascular Events Trial (FACET), Principal Investigator in Memphis: Marco Pahor, MD, Beginning date of award: 12/15/96, Ending date of award: 7/1/97, Total amount: \$15,000.

17. Funding agency: Molteni Farmaceutici, Florence, Italy, Project title: Epidemiologic studies of safety of laxative medications, Principal Investigator: Marco Pahor, MD, Beginning date of award: 1/8/1992, Ending date of award: 30/11/1992*

18. Funding agency: Neopharm Italy, Project title: Italian Group of Pharmacoeconomics in the Elderly (GIFA), Principal Investigator: Pierugo Carbonin, Principal Investigator of the Coordinating Center: Marco Pahor, MD, Beginning date of award: 1993, Ending date of award: 1996*

1. Ilyasova D, Ivanova A, Morrow JD, Cesari M, Pahor M. Correlation between two markers of inflammation, serum C-reactive protein and interleukin 6, and indices of oxidative stress in patients with high risk of cardiovascular disease. *Biomarkers*. 2008 Feb;13(1):41-51.
2. Working Group on Functional Outcome Measures for Clinical Trials. Functional outcomes for clinical trials in frail older persons: time to be moving. *J Gerontol A Biol Sci Med Sci*. 2008 Feb;63(2):160-4.
3. Landi F, Russo A, Pahor M, Capoluongo E, Liperoti R, Cesari M, Bernabei R, Onder G. Serum high-density lipoprotein cholesterol levels and mortality in frail, community-living elderly. *Gerontology*. 2008;54(2):71-8.
4. Giaccaglia V, Nicklas B, Kritchevsky S, Mychalecky J, Messier S, Blecker E, Pahor M. Interaction between angiotensin converting enzyme insertion/deletion genotype and exercise training on knee extensor strength in older individuals. *Int J Sports Med*. 2008 Jan;29(1):40-4.
5. Rejeski WJ, King AC, Katula JA, Kritchevsky S, Miller ME, Walkup MP, Glynn NW, Pahor M. LIFE Investigators. Physical activity in prefrail older adults: confidence and satisfaction related to physical function. *J Gerontol B Psychol Sci Soc Sci*. 2008 Jan;63(1):P19-26.
6. Grossi EJ, Kapian RM, Rejeski WJ, Katula JA, King AC, Frierson G, Glynn NW, Hsu FC, Walkup MP, Pahor M. Health-related quality of life in older adults at risk for disability. *Am J Prev Med* 2007 September; 33(3):214-8.
7. Russo A, Cesari M, Onder G, Zamboni V, Barillaro C, Pahor M, Bernabei R, Landi F. Depression and Physical Function: Results From the Aging and Longevity Study in the

Index

PUBLICATIONS IN PEER REVIEWED JOURNALS
The 245 peer reviewed publications resulted in over 4,000 citations reported in the ISI Citation

- * The dollar amount of financial support earned in Italy is not comparable to that earned in the US. In Italy, grants do not support faculty salary which in general is paid by the Italian Government. Frequently one project is co-funded by more than one agency.
19. Funding agency: Fidia, Italy, Scholarship award to attend courses in Geriatric Epidemiology in Praglia, Italy held by investigators from the NIA and the Johns Hopkins University, 1990-1992*
 20. Funding agency: Sigma-Tau, Italy, Project title: Effect of ACE inhibitors on cardiac fibrosis and arrhythmias in spontaneously hypertensive rats, Principal Investigator: Marco Pahor, MD, Beginning of award: 1988, Ending of award: 1990*
 21. Funding agency: Knoll, Italy, Project title: Calcium Antagonist Reinfarction Italian Study (CRIS), Principal Investigator: Pierugo Carboni, Co-Investigator of the Coordinating Center: Marco Pahor, MD, Beginning of award: 1983, Ending of award: 1988*
 22. Funding agency: Knoll, Italy, Project title: Effect of verapamil on reperfusion ventricular arrhythmias in isolated rat heart preparations, Principal Investigator: Marco Di Gennaro, Co-investigator: Marco Pahor, MD, Beginning of award: 1979, Ending of award: 1982*

Sirente Geographic Area (ISIRENTE Study). *J Geriatr Psychiatry Neurol* 2007 September;20(3):131-7.

8. Landi F, Russo A, Liperoi R, Barillaro C, Danese P, Pahor M, Bernabei R, Onder G. Impact of inappropriate drug use on physical performance among a frail elderly population living in the community. *Eur J Clin Pharmacol* 2007 August;63(8):791-9.
9. Li R, Nicklas B, Pahor M, Newman A, Sutton-Tyrrell K, Harris T, Lakatta E, Bauer DC, Ding J, Satterfield S, Kritchevsky SB. Polymorphisms of angiotensinogen and angiotensin-converting enzyme associated with lower extremity arterial disease in the Health, Aging and Body Composition study. *J Hum Hypertens* 2007 August; 21(8):673-82.

10. Giaccaglia V, Nicklas B, Kritchevsky S, Mychalecky J, Messier S, Blecker E, Pahor M. Interaction between Angiotensin Converting Enzyme Insertion/Deletion Genotype and Exercise Training on Knee Extensor Strength in Older Individuals. *Int J Sports Med* 2007 July 5.
11. Cauley JA, Danielson ME, Boudreau RM, Forrest KY, Zmuda JM, Pahor M, Tyavsky FA, Cummings SR, Harris TB, Newman AB, Inflammatory Markers and Incident Fracture Risk in Older Men and Women: The Health Aging and Body Composition Study. *J Bone Miner Res* 2007 July; 22(7):1088-95.

12. Maraldi C, Volpato S, Penninx BV, Yaffe K, Simonsick EM, Strotmeyer ES, Cesari M, Kritchevsky SB, Perry S, Ayonayon HN, Pahor M. Diabetes mellitus, glycaemic control, and incident depressive symptoms among 70- to 79-year-old persons: the health, aging, and body composition study. *Arch Intern Med* 2007 June 11;167(11):1137-44.
13. Katula JA, Kritchevsky SB, Guralnik JM, Gynn NW, Pruitt L, Wallace K, Walkup MP, Hsu FC, Studenski SA, Gill TM, Groessl EJ, Wallace JM, Pahor M. Lifestyle interventions and independence for elders pilot study: recruitment and baseline characteristics. *J Am Geriatr Soc* 2007 May;55(5):674-83.
14. Vogelzangs N, Beekman AT, Kritchevsky SB, Newman AB, Pahor M, Yaffe K, Rubin SM, Harris TB, Satterfield S, Simonsick EM, Penninx BW. Psychosocial risk factors and the metabolic syndrome in elderly persons: findings from the health, aging and body composition study. *J Gerontol A Biol Sci Med Sci* 2007 May;62(5):563-9.

15. Di BM, Suggs PK, Holmes LP, Farmer DF, Williams SW, Pahor M, Jackson SA. Research partnership with underserved African-American communities to improve the health of older persons with disability: a pilot qualitative study. *Ageing Clin Exp Res* 2007 April;19(2):110-8.
16. Ding J, Kritchevsky SB, Newman AB, Taaffe DR, Nicklas BJ, Visser M, Lee JS, Nevitt M, Tyavsky FA, Rubin SM, Pahor M, Harris TB. Effects of birth cohort and age on body composition in a sample of community-based elderly. *Am J Clin Nutr* 2007 February;85(2):405-10.
17. Landi F, Russo A, Liperoi R, Cesari M, Barillaro C, Pahor M, Bernabei R, Onder G. Anticholinergic drugs and physical function among frail elderly population. *Clin Pharmacol Ther* 2007 February;81(2):235-41.

18. Landi F, Capoluongo E, Russo A, Onder G, Cesari M, Lullì P, Minucci A, Pahor M, Zuppi C, Bernabei R. Free insulin-like growth factor-1 and cognitive function in older persons living in community. *Growth Horm IGF Res* 2007 February; 17(1):58-66.
19. Brenes GA, Williamson JD, Messier SP, Rejeski WJ, Pahor M, Ip E, Penninx BW. Treatment of minor depression in older adults: A pilot study comparing sertraline and exercise. *Aging Ment Health* 2007 January; 11(1):61-8.
20. Verghese J, Kuslansky G, Holtzer R, Katz M, Xue X, Buschke H, Pahor M. Walking while talking: effect of task prioritization in the elderly. *Arch Phys Med Rehabil* 2007 January; 88(1):50-3.
21. Ding J, Nicklas BJ, Fallin MD, de RN, Kritchevsky SB, Pahor M, Rodondi N, Li R, Zmuda JM, Harris TB. Plasminogen activator inhibitor type 1 gene polymorphisms and haplotypes are associated with plasma plasminogen activator inhibitor type 1 levels but not with myocardial infarction or stroke. *Am Heart J* 2006 December; 152(6):1109-15.
22. Landi F, Russo A, Liperoti R, Cesari M, Barillaro C, Pahor M, Bernabei R, Onder G. Anticholinergic Drugs and Physical Function Among Frail Elderly Population. *Clin Pharmacol Ther* 2006 December 27.
23. LIFE investigators. Effects of a Physical Activity Intervention on Measures of Physical Performance: Results of the Lifestyle Interventions and Independence for Elders Pilot (LIFE-P) Study. *J Gerontol A Biol Sci Med Sci* 2006 November; 61(11):1157-65.
24. Mangani I, Cesari M, Kritchevsky SB, Maraldi C, Carter CS, Atkinson HH, Penninx BW, Marchionni N, Pahor M. Physical exercise and comorbidity. Results from the Fitness and Arthritis in Seniors Trial (FAST). *Aging Clin Exp Res* 2006 October; 18(5):374-80.
25. Maraldi C, Volpato S, Cesari M, Onder G, Pedone C, Woodman RC, Fellin R, Pahor M. Investigators of the Gruppo Italiano di Farmacoepidemiologia nell'Anziano Study. Anemia, physical disability, and survival in older patients with heart failure. *J Card Fail* 2006 September; 12(7):533-9.
26. Maraldi C, Volpato S, Kritchevsky SB, Cesari M, Andresen E, Leuvenburgh C, Harris TB, Newman AB, Kanaya A, Johnson KC, Rodondi N, Pahor M. Impact of inflammation on the relationship among alcohol consumption, mortality, and cardiac events: the health, aging, and body composition study. *Arch Intern Med* 2006 July 24; 166(14):1490-7.
27. Russo A, Onder G, Cesari M, Zamboni V, Barillaro C, Capoluongo E, Pahor M, Bernabei R, Landi F, Ferrucci L. Lifetime occupation and physical function: a prospective cohort study on persons aged 80 years and older living in a community. *Occup Environ Med* 2006 July; 63(7):438-42.
28. van Gool CH, Penninx BW, Kempen GI, Miller GD, van Eijk JT, Pahor M, Messier SP. Determinants of high and low attendance to diet and exercise interventions among overweight and obese older adults. Results from the arthritis, diet, and activity promotion trial. *Contemp Clin Trials* 2006 May 1; 27(3):227-37.

29. Zamboni V, Cesari M, Zuccala G, Onder G, Woodman RC, Maraldi C, Ranzini M, Volpato S, Pahor M, Bernabei R. Anemia and cognitive performance in hospitalized older patients: results from the GIFA study. *Int J Geriatr Psychiatry* 2006 June;21(6):529-34.
30. Maggioni M, Ceda GP, Lauretani F, Pahor M, Bandinelli S, Najjar SS, Ling SM, Basaria S, Ruggiero C, Valentini G, Ferrucci L. Relation of Angiotensin-Converting Enzyme Inhibitor Treatment to Insulin-Like Growth Factor-1 Serum Levels in Subjects >65 Years of Age (the INCHIANTI Study). *Am J Cardiol* 2006 May 15;97(10):1525-9.
31. Newman AB, Simonsick EM, Naydeck EM, Kritchevsky SB, Nevitt M, Pahor M, Satterfield S, Brach JS, Studenski SA, Harris TB. Association of long-distance corridor walk performance with mortality, cardiovascular disease, mobility limitation, and disability. *JAMA* 2006 May 3;295(17):2018-26.
32. Dirks AJ, Hofer T, Marzetti E, Pahor M, Leuvenburgh C. Mitochondrial DNA mutations, energy metabolism and apoptosis in aging muscle. *Ageing Res Rev* 2006 May; 5(2):179-95.
33. Cesari M, Leuvenburgh C, Lauretani F, Onder G, Bandinelli S, Maraldi C, Guralnik JM, Pahor M, Ferrucci L. Frailty syndrome and skeletal muscle: results from the Invecchiare in Chianti study. *Am J Clin Nutr* 2006 May;83(5):1142-8.
34. Penninx BW, Pahor M, Woodman RC, Guralnik JM. Anemia in old age is associated with increased mortality and hospitalization. *J Gerontol A Biol Sci Med Sci* 2006 May;61(5):474-9.
35. Pahor M. Randomized controlled trials involving multidisciplinary interventions in the community. *J Gerontol A Biol Sci Med Sci* 2006 May; 61:472-3.
36. Maraldi C, Volpato S, Cesari M, Cavalleri M, Onder G, Mangani I, Woodman RC, Fallin R, Pahor M. Anemia and recovery from disability in activities of daily living in hospitalized older persons. *J Am Geriatr Soc* 2006 April;54(4):632-6.
37. Cesari M, Kritchevsky SB, Leuvenburgh C, Pahor M. Oxidative damage and platelet activation as new predictors of mobility disability and mortality in elders. *Antioxid Redox Signal* 2006 March;8(3-4):609-19.
38. Nicklas BJ, Cesari M, Penninx BW, Kritchevsky SB, Ding J, Newman A, Kitzman DW, Kanaya AM, Pahor M, Harris TB. Abdominal obesity is an independent risk factor for chronic heart failure in older people. *J Am Geriatr Soc* 2006 March;54(3):413-20.
39. Kalani R, Judge S, Carter C, Pahor M, Leuvenburgh C. Effects of Caloric Restriction and Exercise on Age-Related, Chronic Inflammation Assessed by C-Reactive Protein and Interleukin-6. *J Gerontol A Biol Sci Med Sci* 2006 March;61(3):211-7.
40. Onder G, Vedova CD, Pahor M. Effects of ACE inhibitors on skeletal muscle. *Curr Pharm Des* 2006;12(16):2057-64.
41. Rolland Y, Lauwers-Cances V, Cesari M, Vellas B, Pahor M, Grandjean H. Physical Performance Measures as Predictors of Mortality in a Cohort of Community-dwelling Older French Women. *Eur J Epidemiol* 2006;21(2):113-22.

42. Cesari M, Onder G, Russo A, Zamboni V, Barillaro C, Ferrucci L, Pahor M, Bernabei R, Landi F. Comorbidity and physical function: results from the aging and longevity study in the Sirente geographic area (iSIRENTE study). *Gerontology* 2006;52(1):24-32.
43. Landi F, Russo A, Cesari M, Barillaro C, Onder G, Zamboni V, De SA, Pahor M, Ferrucci L, Bernabei R. The iSIRENTE study: a prospective cohort study on persons aged 80 years and older living in a mountain community of Central Italy. *Aging Clin Exp Res* 2005 December;17(6):486-93.
44. Carter CS, Onder G, Kritchevsky SB, Pahor M. Angiotensin-converting enzyme inhibition intervention in elderly persons: effects on body composition and physical performance. *J Gerontol A Biol Sci Med Sci* 2005 November;60(11):1437-46.
45. Cesari M, Kritchevsky SB, Nicklas BJ, Penninx BW, Holvoet P, Koh-Banerjee P, Cummings SR, Harris TB, Newman AB, Pahor M. Lipoprotein peroxidation and mobility limitation: results from the health, aging, and body composition study. *Arch Intern Med* 2005 October 10;165(18):2148-54.
46. High K, Trader M, Pahor M, Loeb M. Intraindividual variability and the effect of acute illness on immune senescence markers. *J Am Geriatr Soc* 2005 October;53:1761-6.
47. Cesari M, Kritchevsky SB, Penninx BW, Nicklas BJ, Simonsick EM, Newman AB, Tyavsky F, Brach JS, Satterfield S, Bauer DC, Visser M, Rubin S, Harris TB, Pahor M. Prognostic value of usual gait speed in well-functioning older people-results from the health, aging and body composition study. *J Am Geriatr Soc* 2005 October;53:1675-80.
48. Nicklas BJ, Mychaleckyj J, Kritchevsky S, Palla S, Lange LA, Lange EM, Messier SP, Bowden D, Pahor M. Physical function and its response to exercise: associations with cytokine gene variation in older adults with knee osteoarthritis. *J Gerontol A Biol Sci Med Sci* 2005 October;60(10):1292-8.
49. Foy CG, Penninx BW, Shumaker SA, Messier SP, Pahor M. Long-term exercise therapy resolves ethnic differences in baseline health status in older adults with knee osteoarthritis. *J Am Geriatr Soc* 2005 September;53(9):1469-75.
50. Onder G, Penninx BW, Cesari M, Bandinelli S, Lauretani F, Bartali B, Gori AM, Pahor M, Ferrucci L. Anemia is Associated With Depression in Older Adults: Results From the InCHIANTI Study. *J Gerontol A Biol Sci Med Sci* 2005 September;60(9):1168-72.
51. Kritchevsky SB, Nicklas BJ, Visser M, Simonsick EM, Newman AB, Harris TB, Lange EM, Penninx BW, Goodpaster BH, Satterfield S, Colbert LH, Rubin SM, Pahor M. Angiotensin-converting enzyme insertion/deletion genotype, exercise, and physical decline. *JAMA* 2005 August 10;294(6):691-8.
52. Cesari M, Kritchevsky SB, Baumgartner RN, Atkinson H, Penninx BW, Lenchik L, Palla S, Ambrosius WT, Tracy RP, Pahor M. Sarcopenia, obesity and inflammation - Results from the Trial of Angiotensin Converting Enzyme Inhibition and Novel Cardiovascular Risk Factors study. *Am J Clin Nutr* 2005;82:428-34.
53. Sutton-Tyrell K, Najjar SS, Boudreau RM, Venkatasubramanian L, Kupelian V, Simonsick EM, Havlik RJ, Lakatta EG, Spurgeon HA, Kritchevsky SB, Pahor M, Bauer DC, Newman AB.

54. Nieves JW, Zion M, Pahor M, Bernabei R, Gussekioo J, Simon H, Park JS, Li T, Lapuerta P, Williams GR. Evaluation of continuous summary physical performance scores (CSPPS) in an elderly cohort. *Aging Clin Exp Res* 2005 June;17(3):193-200.

55. Cesari M, Pahor M, Lauretani F, Penninx BW, Bartali B, Russo R, Cherubini A, Woodman R, Bandinelli S, Guralnik JM, Ferrucci L. Bone density and hemoglobin levels in older persons: results from the InCHIANTI study. *Osteoporos Int* 2005 June;16(6):691-9.

56. Kritchevsky SB, Cesari M, Pahor M. Inflammatory markers and cardiovascular health in older adults. *Cardiovasc Res* 2005 May 1;66(2):265-75.

57. Pahor M. Implementation of smooth continuous camera trajectories for viewing PDB and VRML objects. *J Comput Aided Mol Des*. 2005 May; 19(5):293-9.

58. Nicklas BJ, You T, Pahor M. Behavioural treatments for chronic systemic inflammation: effects of dietary weight loss and exercise training. *CMAJ* 2005 April 26;172(9):1199-209.

59. Nicklas BJ, Penninx BW, Cesari M, Kritchevsky SB, Newman AB, Kanaya AM, Pahor M, Jingzhong D, Harris TB. Association of Visceral Adipose Tissue With Incident Myocardial Infarction in Older Men and Women: The Health, Aging and Body Composition Study. *Obstet Gynecol Surv* 2005 March;60(3):173-5.

60. Rejeski WJ, Fielding RA, Blair SN, Guralnik JM, Gill TM, Hadley EC, King AC, Kritchevsky SB, Miller ME, Newman AB, Pahor M. The Lifestyle Interventions and Independence for Elders (LIFE) Pilot Study: Design and Methods. *Contemp Clin Trials* 2005;26(2):141-54.

61. van Gool CH, Penninx BW, Kempen GI, Rejeski WJ, Miller GD, van Eijk JT, Pahor M, Messier SP. Effects of exercise adherence on physical function among overweight older adults with knee osteoarthritis. *Arthritis Rheum* 2005 February 4;53(1):24-32.

62. Zatelet-Kragelj L, Pahor M, Bilban M. Identification of population groups at very high risk for frequent perception of stress in Slovenia. *Croat Med J*. 2005 February; 46(1):137-45.

63. Chen GJ, Moran WP, Applegate WB, Pahor M. A cost-minimization analysis of diuretic-based antihypertensive therapy reducing cardiovascular events in older adults with isolated systolic hypertension. *Journal of Cost Effectiveness and Resource Allocation* 2005;3:2.

64. Pedone C, Cecchi E, Matucci R, Pahor M, Carosella L, Bernabei R, Mugelli A. Does aspirin attenuate the beneficial effect of ACE inhibitors in elderly people with heart failure? *Drugs Aging* 2005;22(7):605-14.

65. Onder G, Penninx BW, Ferrucci L, Fried LP, Guralnik JM, Pahor M. Measures of physical performance and risk for progressive and catastrophic disability: results from the Women's Health and Aging Study. *J Gerontol A Biol Sci Med Sci* 2005 January;60(1):74-9.

66. Nicklas BJ, Penninx BW, Cesari M, Kritchevsky SB, Newman AB, Kanaya AM, Pahor M, Jingzhong D, Harris TB. Association of visceral adipose tissue with incident myocardial

infarction in older men and women: the health, aging and body composition study. *Am J Epidemiol* 2004 October 15;160(8):741-9.

67. Penninx BW, Abbas H, Ambrosius V, Nicklas BJ, Davis C, Messier SP, Pahor M. Inflammatory Markers and Physical Function Among Older Adults with Knee Osteoarthritis. *J Rheumatol* 2004 October;31(10):2027-31.

68. Cesari M, Pahor M, Lauretani F, Penninx BW, Bartali B, Russo R, Cherubini A, Woodman R, Bandinelli S, Guralnik JM, Ferrucci L. Bone density and hemoglobin levels in older persons: results from the InCHIANTI study. *Osteoporos Int* 2004 September 28;16:691-9.

69. Penninx BW, Kritchevsky SB, Newman AB, Nicklas BJ, Simonsick EM, Rubin S, Nevitt M, Visser M, Harris T, Pahor M. Inflammatory markers and incident mobility limitation in the elderly. *J Am Geriatr Soc* 2004 July;52(7):1105-13.

70. Colbert LH, Visser M, Simonsick EM, Tracy RP, Newman AB, Kritchevsky SB, Pahor M, Taaffe DR, Brach J, Rubin S, Harris TB. Physical activity, exercise, and inflammatory markers in older adults: findings from the health, aging and body composition study. *J Am Geriatr Soc* 2004 July;52(7):1098-104.

71. Pedone C, Pahor M, Carosella L, Carbonin PU, GIFA investigators. Use of ACE-inhibitors in elderly people with congestive heart failure: prevalence and outcomes. *J Gerontol A Biol Sci Med Sci* 2004;59:716-21.

72. Rolland YM, Cesari M, Miller ME, Penninx BWJH, Atkinson H, Pahor M. Reliability of the 400-meter usual pace walk test as an assessment of mobility limitation in older adults. *J Am Geriatr Soc* 2004;52:972-6.

73. Di Bari M, Franse LV, Onder G, Kritchevsky SB, Newman AB, Harris TB, Williamson JD, Marchionni N, Pahor M. Antihypertensive medications and differences in muscle mass in older persons: the Health ABC study. *J Am Geriatr Soc* 2004;52:961-6.

74. Messier SP, Miller GD, Morgan TP, Rejeski WJ, Sevick MA, Loeser RF, Ettlinger WH, Pahor M, Williamson JD. Exercise and dietary weight loss in overweight and obese older adults with knee osteoarthritis: the Arthritis, Diet and Activity Promotion Trial (ADAPT). *Arthritis and Rheumatism* 2004;50:1501-10.

75. Penninx BWJH, Cesari M, Corsi AM, Woodman RC, Guralnik JM, Ferrucci L. Anemia is associated with decreased physical performance and muscle strength in the elderly. *J Am Geriatr Soc* 2004;52:719-24.

76. Carter CS, Cesari M, Ambrosius WT, Hu N, Diz D, Oden S, Sonntag WE, Pahor M. Angiotensin-converting enzyme inhibition, body composition, and physical performance in aged rats. *J Gerontol A Biol Sci Med Sci* 2004 May;59(5):B416-B423.

77. Rolland YM, Lawers-Cances V, Pahor M, Filliaux J, Grandjean H, Vellas BJ. Muscle strength in obese elderly women: Impact of recreational physical activity. A cross-sectional study. *Am J Clin Nutr* 2004;79:552-7.

89. Penninx BWJH, Kritchevsky SB, Yaffe K, Newman AB, Simonsick EM, Rubin S, Ferrucci L, Harris TB, **Pahor M**. Inflammatory markers and depressed mood in older persons: Results from the Health ABC study. *Biol Psychiatry* 2003;54:566-72.
88. Cesari M, Penninx BWJH, Newman AB, Kritchevsky SB, Nicklas BJ, Sutton-Tyrrell K, Tracy RP, Rubin S, Harris TB, **Pahor M**. Inflammatory markers and cardiovascular disease (The Health, Aging and Body Composition [Health ABC] Study). *Am J Cardiol* 2003;92:522-8.
87. Onder G, Penninx BW, Guralnik JM, Jones H, Fried LP, **Pahor M**, Williamson JD. Sexual satisfaction and risk of disability in older women. *J Clin Psychiatry* 2003 October;64(10):1177-82.
86. Onder G, **Pahor M**, Gambassi G, Federici A, Savo A, Carboni P, Bernabei R. Association between ACE inhibitors use and headache caused by nitrates among hypertensive patients: results from the Italian group of pharmacoepidemiology in the elderly (GIFA). *Cephalalgia* 2003 November;23(9):901-6.
85. Cesari M, Penninx BW, Newman AB, Kritchevsky SB, Nicklas BJ, Sutton-Tyrrell K, Rubin S, Ding J, Simonsick EM, Harris TB, **Pahor M**. Inflammatory markers and onset of cardiovascular events: results from the Health ABC study. *Circulation* 2003 November 11;108(11):2317-22.
84. Cesari M, Penninx BWJH, Newman AB, Kritchevsky SB, Nicklas BJ, Sutton-Tyrrell K, Tracy RP, Rubin S, Harris TB, **Pahor M**. Inflammatory markers and cardiovascular disease (The Health, Aging and Body Composition [Health ABC] Study). *Am J Cardiol* 2003;92:522-8.
83. Ferrucci L, Guralnik JM, Studenski S, Fried LP, Cutler J, Walston JD. The interventions on Frailty Working Group. Designing randomized controlled trials aimed at preventing or delaying functional decline and disability in frail, older persons: a consensus report. *J Am Geriatr Soc* 2004;52(4):625-34.
82. Cesari M, **Pahor M**, Bartali B, Cherubini A, Penninx BW, Williams GR, Atkinson H, Martin A, Guralnik JM, Ferrucci L. Antioxidants and physical performance in elderly persons: the Invecchiare in Chianti (InCHIANTI) study. *Am J Clin Nutr* 2004 February;79(2):289-94.
81. Volpato S, **Pahor M**, Ferrucci L, Simonsick EM, Guralnik JM, Kritchevsky SB, Fellin R, Harris TB. The relationship of alcohol intake with inflammatory markers and plasminogen-activator inhibitor-1 in well-functioning older adults. The Health-ABC Study. *Circulation* 2004;109:607-12.
80. Cesari M, Penninx BW, **Pahor M**, Lauretani F, Corsi AM, Guralnik JM, Ferrucci L. Inflammatory markers and physical performance in older persons: the InChianti study. *J Gerontol A Biol Sci Med Sci* 2004;59:242-8.
79. Cesari M, Penninx BWJH, Lauretani F, Russo CR, Carter CS, Balduino S, Atkinson H, Onder G, **Pahor M**, Ferrucci L. Hemoglobin levels and skeletal muscle: results from the InChianti study. *J Gerontol A Biol Sci Med Sci* 2004;59:249-54.
78. Nicklas BJ, Ambrosius W, Messier SP, Miller GD, Penninx BWJH, Loeser RF, Palla S, Blecker GC, **Pahor M**. Dietary-induced weight loss, exercise and chronic inflammation in older, obese adults: A randomized controlled clinical trial. *Am J Clin Nutr* 2004;79:544-51.

90. Penninx BW, Guralnik JM, Onder G, Ferrucci L, Wallace RB, **Pahor M**. Anemia and decline in physical performance among older persons. *Am J Med* 2003 August 1;115(2):104-10.
91. Zuccala G, Pedone C, Cesari M, Onder G, **Pahor M**, Marzetti E, Lo Monaco MR, Cocchi A, Carboni P, Bernabei R. The effects of cognitive impairment on mortality among hospitalized patients with heart failure. *Am J Med* 2003 August 1;115(2):97-103.
92. Yaffe K, Lindquist K, Penninx BW, Simonsick EM, **Pahor M**, Kritchevsky S, Launer L, Kuller L, Rubin S, Harris T. Inflammatory markers and cognition in well-functioning African-American and white elders. *Neurology* 2003 July 8;61(1):76-80.
93. Visser M, **Pahor M**, Tyllavsky F, Kritchevsky SB, Cauley JA, Newman AB, Harris TB. One- and two-year change in body composition as measured by DXA in a population-based cohort of older men and women. *J Appl Physiol* 2003;94:2368-74.
94. Psaty BM, Lumley T, Furburg CD, Schellenbaum G, **Pahor M**, Alderman MH, Weiss NS. Health outcomes associated with various antihypertensive therapies used as first-line agents: a network meta-analysis. *JAMA* 2003 May 21;289(19):2534-44.
95. Onder G, Penninx BW, Landi F, Atkinson H, Cesari M, Bernabei R, **Pahor M**. Depression and adverse drug reactions among hospitalized older adults. *Arch Intern Med* 2003 February 10;163(3):301-5.
96. Onder G, Gambassi G, Sgadari A, Williamson JD, Cesari M, Landi F, Bernabei R, **Pahor M**. Impact of hospitalization on blood pressure control in Italy: results from the Italian Group of Pharmacoepidemiology in the Elderly (GIFA). *Pharmacotherapy* 2003 February;23(2):240-7.
97. Di Bari M, Marchionni N, **Pahor M**. β -blockers in elderly patients with diabetes mellitus after acute myocardial infarction: time to reassess. *Drugs Aging* 2003;20(1):13-22.
98. Antonelli Inc, Pedone C, **Pahor M**, Onder G, Carboni PU. Trends in prescribing ACE-inhibitors for congestive heart failure in elderly people. *Aging Clin Exp Res* 2002 December;14(6):516-21.
99. Young JH, Klag MJ, Muntner P, Whyte JL, **Pahor M**, Corresh J. Blood Pressure and Decline in Kidney Function: Findings from the Systolic Hypertension in the Elderly Program (SHEP). *J Am Soc Nephrol* 2002 November;13(11):2776-82.
100. Rejeski WJ, Focht BC, Messier SP, Morgan TM, **Pahor M**, Penninx BW. Obese, older adults with knee osteoarthritis: weight loss, exercise, and quality of life. *Health Psychology* 2002;21(5):419-26.
101. Somes GW, Kritchevsky SB, Shorr RI, **Pahor M**, Applegate WB. Body mass index, weight change, and death in older adults: the systolic hypertension in the elderly program. *Am J Epidemiol* 2002 July 15;156(2):132-8.
102. Visser M, **Pahor M**, Taaffe D, Goodpaster BH, Simonsick E, Newman AB, Nevitt MC, Harris TB. Relationship of interleukin-6 and tumor necrosis factor- α with muscle mass and muscle strength in elderly men and women: the Health ABC Study. *J Gerontol A Biol Sci Med Sci* 2002;57:M326-M332.

103. Onder G, Penninx BW, Lapuerta P, Fried LP, Ostir GV, Guralnik JM, Pahor M. Change in physical performance over time in older women: the Women's Health and Aging Study. *J Gerontol A Biol Sci Med Sci* 2002 May;57(5):M289-M293.
104. Carter CS, Onder G, Sonntag WE, Pahor M. Physical performance and longevity in aged rats. *J Gerontol A Biol Sci Med Sci* 2002;57:B193-B197.
105. Onder G, Penninx BW, Balkrishnan R, Fried LP, Chaves PH, Williamson J, Carter C, Di Bari M, Guralnik JM, Pahor M. Relation between use of angiotensin-converting enzyme inhibitors and muscle strength and physical function in older women: an observational study. *Lancet*. 2002 March 16;359(9310):926-30.
106. Penninx BW, Rejeski WJ, Pandya J, Miller ME, Di Bari M, Applegate WB, Pahor M. Exercise and Depressive Symptoms: A Comparison of Aerobic and Resistance Exercise Effects on Emotional and Physical Function in Older Persons With High and Low Depressive Symptomatology. *J Gerontol B Psychol Sci Soc Sci* 2002;57:P124-P132.
107. Di Bari M, Pahor M, Barnard M, Gades N, Graney M, Franse LV, Penninx BW, Marchionni N, Applegate WB. Evaluation and correction for a 'Training Effect' in the cognitive assessment of older adults. *Neuroepidemiology* 2002 March;21(2):87-92.
108. Pahor M, Franse LV, Deitcher SR, Cushman WC, Johnson KC, Shorr RI, Tracy RP, Somes GW, Applegate WB. The Fosinopril versus Amlodipine Comparative Treatments Study (FACTS), a randomized trial to assess effects on PAI-1. *Circulation* 2002;105:457-61.
109. Zhu K, Daling JR, Pahor M. African-American ethnicity in epidemiological studies of calcium antagonists in relation to cancer. *Ethn Dis* 2002;12(1):144-8.
110. Onder G, Penninx BW, Balkrishnan R, Fried LP, Chaves PH, Carter CS, Williamson JD, Di Bari M, Guralnik JM, Pahor M. ACE inhibitors use and changes in muscle strength and physical performance in older women. *Lancet* 2002;359:926-30.
111. Onder G, Penninx B, Pahor M. ACE inhibitors use and physical performance - Authors' reply. *Lancet* 2002 October 5;360(9339):1099.
112. Furberg CD, Psaty BM, Pahor M, Alderman MH. Clinical Implications of Recent Findings from the Antihypertensive and Lipid-Lowering Treatment To Prevent Heart Attack Trial (ALLHAT) and Other Studies of Hypertension. *Ann Intern Med* 2001 December 18;135(12):1074-8.
113. Zuccala G, Onder G, Pedone C, Carosella L, Pahor M, Bernabei R, Cocchi A. Hypotension and cognitive impairment: Selective association in patients with heart failure. *Neurology* 2001 December 11;57(11):1986-92.
114. Franse LV, Di Bari M, Shorr RI, Resnick HE, van Eijk JT, Bauer DC, Newman AB, Pahor M. Type 2 diabetes in older well-functioning people: who is undiagnosed? Data from the Health, Aging, and Body Composition study. *Diabetes Care* 2001 December;24(12):2065-70.
115. Corsonello A, Pedone C, Pahor M, Malara A, Carosella L, Mazzei B, Onder G, Corsonello F, Carboni F, Corica F. Serum magnesium levels and cognitive impairment in hospitalized hypertensive patients. *Magnes Res* 2001 December;14(4):273-82.

116. Penninx BW, Messier SP, Rejeski WJ, Williamson JD, Di Bari M, Cavazzini C, Applegate WB, Pahor M. Physical exercise and prevention of ADL disability in older persons with osteoarthritis. *Arch Intern Med* 2001;161:2309-16.
117. Ferrucci L, Furlberg CD, Penninx BW, Di Bari M, Williamson DF, Guralnik JM, Chen GJ, Applegate WB, Pahor M. Treatment of isolated systolic hypertension is most effective in older patients with high risk profile. *Circulation* 2001;104:1923-6.
118. Sutton-Tyrrell K, Newman A, Simonsick EM, Havlik R, Pahor M, Lakatta E, Spurgeon H, Vaitkevicius P. Aortic stiffness is associated with visceral adiposity in older adults enrolled in the study of health, aging, and body composition. *Hypertension* 2001 September;38(3):429-33.
119. Pahor M, Psaty BM, Alderman MH, Applegate WB, Furlberg CD. Blood-pressure-lowering treatment. *Lancet* 2001 July 14;358(9276):152-3.
120. Carter CS, Sonntag WE, Pahor M. An animal model of physical disability: a preclinical strategy for improving assessment and intervention. *Exp Aging Res* 2001;27(3):271-82.
121. Incalzi RA, Pedone C, Pahor M, Carosella L, Bernabei R, Carboni P, the GIFA. I. Reasons Prompting Digitalis Therapy in the Acute Care Hospital. *J Gerontol A Biol Sci Med Sci* 2001 June 1;56(6):M361-M365.
122. Incalzi RA, Pedone C, Onder G, Pahor M, Carboni P. Predicting length of stay of older patients with exacerbated chronic obstructive pulmonary disease. *Aging (Milano)* 2001 February;13(1):49-57.
123. Di Bari M, Pahor M, Frasse LV, Shorr RI, Ferrucci L, Wan JY, Somes GW, Applegate WB. Dementia and disability outcomes in large hypertension trials: lessons learned from the Systolic Hypertension in the Elderly Program (SHEP) Trial. *Am J Epidemiol* 2001;153:72-8.
124. Kiesges LM, Pahor M, Guralnik JM, Shorr RI, Williamson JD. Financial difficulty acquiring food and nutritional health: results from the Women's Health and Aging Study (WHAS). *Am J Public Health* 2001;91:68-75.
125. Pahor M, Psaty B, Alderman MH, Williamson JD, Applegate WB, Cavazzini C, Furlberg CD. The health outcomes associated with calcium antagonists compared with other first-line antihypertensive therapies: a meta-analysis of randomized controlled trials. *Lancet* 2000;356:1949-54.
126. Sevick MA, Muender M, Rollh C, Pahor M. Gender differences in morbidity and mortality related to depression: a review of the literature. *Aging, Clinical and Experimental Research* 2000;12:407-16.
127. Kritchevsky SB, Bush AJ, Pahor M, Gross MD. Serum carotenoids and markers of inflammation in a non-smokers. *Am J Epidemiol* 2000;152:1065-71.
128. Havlik RJ, Guralnik JM, Cohen HJ, Pahor M, Sayer B. Antihypertensive drugs and gastrointestinal hemorrhage: causation or confounding. *Gastroenterology* 2000;119:1416-7.

129. Penninx BW, Ferrucci L, Leveille SG, Rantanen T, Pahor M, Guralnik JM. Lower extremity performance in nondisabled older persons as a predictor of subsequent hospitalization. *J Gerontol A Biol Sci Med Sci* 2000;55A:M691-M697.
130. Psaty BM, Furburg CD, Pahor M, Alderman M, Kuller LH. National Guidelines, Clinical Trials, and Quality of Evidence. *Arch Intern Med* 2000 September 25;160(17):2577-80.
131. Ferrucci L, Penninx BWJH, Leveille SG, Corti MC, Pahor M, Wallace RB, Harris TB, Guralnik JM. Characteristics of non-disabled older persons who perform poorly in objective tests of lower extremity function. *J Am Geriatr Soc* 2000;48:1102-10.
132. Franse LV, Pahor M, Di Bari M, Shorr RI, Wan JY, Somes GW, Applegate WB. Serum uric acid, diuretic treatment and risk of cardiovascular events in the Systolic Hypertension in the Elderly Program (SHEP). *J Hypertens* 2000 August;18(8):1149-54.
133. Pahor M, Psaty BM, Alderman MH, Applegate WB, Williamson JD, Furburg CD. Therapeutic benefits of ACE inhibitors and other antihypertensive drugs in patients with type 2 diabetes. *Diabetes Care* 2000;23:888-92.
134. Franse LV, Pahor M, Di Bari M, Somes GW, Cushman WC, Applegate WB. Hypokalemia associated with diuretic use and cardiovascular events in the Systolic Hypertension in the Elderly Program (SHEP). *Hypertension* 2000;35(5):1025-30.
135. Zuccala G, Pedone C, Cocchi A, Bernabei R, Pahor M, Carosella L, Carboni PU. Age and in-hospital development of hypokalemia from loop diuretics: results from a multicenter cross-sectional survey. *J Gerontol* 2000;55A:M232-M238.
136. Zuccala G, Pedone C, Cocchi A, Pahor M, Carosella L, Carboni P, Bernabei R. Use of calcium antagonists and hemoglobin loss in hospitalized elderly patients: a cohort study. Gruppo Italiano di Farmacoepidemiologia nell'Anziano (GIFA) investigators. *Clin Pharmacol Ther* 2000 March;67(3):314-22.
137. Shorr RI, Franse LV, Resnick HE, Di Bari M, Johnson KC, Pahor M. Glycemic control of older adults with type 2 diabetes: findings from the third National Health and Nutrition Examination Survey, 1988-1994. *J Am Geriatr Soc* 2000;48:264-7.
138. Crucitti A, Cecchi E, Gensini GF, Simone I, Gialloni S, Pedone C, Pahor M, Mugelli A. Use of antihypertensive drugs in the Italian hospitals. *Pharmacol Res* 2000;41(2):249-53.
139. Pahor M, Psaty BM. Non-equivalence of antihypertensive drugs. *Evidence Based Cardiovascular Medicine* 2000;4:101-3.
140. Psaty BM, Pahor M. Doxazosin was associated with more stroke and cardiovascular disease events than chlorthalidone in high-risk hypertension - Commentary. *ACP J Club* 2000;133:86.
141. Glorioso N, Toffa C, Fillinghetti F, Dettori F, Soro A, Pinna Parpaglia P, Collatina S, Pahor M. Effect of the HMG-CoA reductase inhibitors on blood pressure in essential hypertensive patients with primary hypercholesterolemia. *Hypertension* 1999;34:1281-6.

142. **Somes GW, Shorr RI, Pahor M.** A new twist in the J-shape curve? *J Am Geriatr Soc* 1999;47(12):1477-8.
143. **Stabler SP, Allen RH, Fried LP, Pahor M, Kittner SJ, Guralnik JM.** Racial differences in prevalence of cobalamin and folate deficiency in disabled women. *Am J Clin Nutr* 1999;70:911-9.
144. **Corsonello A, Pedone C, Allegra A, Carosella L, Sgadari A, Mauro VF, Ceruso D, Pahor M, Carboni PU.** Antihypertensive drug therapy and hypoglycemia in elderly diabetic patients treated with insulin and/or sulfonylureas. *Eur J Epidemiol* 1999;15:893-901.
145. **Di Bari M, Williamson JD, Pahor M.** Missing-data in epidemiological studies of age-associated cognitive decline. *J Am Geriatr Soc* 1999;47:1380-1.
146. **Di Bari M, Saiti F, Nardi M, Pahor M, De Fusco C, Tonon E, Ungar A, Pini R, Masotti G, Marchionni N.** Undertreatment of hypertension in community-dwelling older adults: a drug-utilization study in Dicomano, Italy. *J Hypertens* 1999;17:1633-40.
147. **Somes GW, Pahor M, Shorr RI, Cushman WC, Applegate WB.** The role of diastolic blood pressure when treating isolated systolic hypertension. *Arch Intern Med* 1999;159:2004-9.
148. **Carosella L, Pahor M, Pedone C, Zuccala' G, Manto A, Carboni P, GIFA investigators.** Farmacovigilanza nell'Anziano' (GIFA). *Pharmacol Res* 1999 September;40(3):287-95.
149. **Hirsch R, Guralnik JM, Leveille SG, Simonsick E, Ling S, Bandeen-Roche KJ, Rantanen T, Pahor M, Fried LP, Hochberg MC.** Severity of hand osteoarthritis and its association with upper extremity function in a population of disabled older women: the women's health and aging study. *Aging, Clinical and Experimental Research* 1999;11:253-61.
150. **Pahor M, Guralnik JM, Wan JY, Ferrucci L, Penninx BWJH, Lyles A, Ling S, Fried LP.** Lower body osteoarticular pain and dose of analgesic medications in older disabled women: the Women's Health and Aging Study (WHAS). *Am J Public Health* 1999;89(6):930-4.
151. **Pesaty BM, Koepsell TD, Lin D, Weiss NS, Siscovick DS, Rosendaal FR, Heckbert SR, Pahor M, Wagner EH, Furberg CD.** Assessment and control for confounding by indication in observational studies. *J Am Geriatr Soc* 1999 June;47:749-54.
152. **Ferrucci L, Harris TB, Guralnik JM, Wacholder S, Tracy RP, Corti MC, Penninx BWJH, Pahor M, Wallace RB, Havlik RJ.** Inflammation, a novel risk factor for disability in older persons. *J Am Geriatr Soc* 1999 June;47(6):639-46.
153. **Pahor M, Tatti P.** The Fosinopril versus Amlodipine Cardiovascular Events Trial (FACET) and combination therapies. *Am J Cardiol* 1999;83:819-20.
154. **Corti MC, Guralnik JM, Ferrucci L, Izmirlian G, Leveille SG, Pahor M, Cohen HJ, Pieper C, Havlik RJ.** Evidence for a black-white cross-over in all-cause and coronary heart disease mortality from a prospective study of an older population: the North Carolina EPESE. *Am J Public Health* 1999;89:308-14.

155. Pahor M, Eiam MB, Garrison RJ, Kritchevsky SB, Applegate WB. Emerging non-invasive biochemical measures to predict cardiovascular risk. *Arch Intern Med* 1999;159:237-45.
156. Pahor M, Somes GW, Franse LV, Shorr RI, Applegate WB. Prevention of dementia: Syst-Eur trial. *Lancet* 1999;353:235.
157. Landi F, Sgadari A, Zuccala G, Pahor M, Carbonin PU, Bernabei R. A brief training program on resident assessment instrument improves motivation of nursing home staff. *J Nutrition Health & Aging* 1999;3(1):24-8.
158. Penninx BWJH, Guralnik JM, Pahor M, Ferrucci L, Cerhan JR, Wallace RB, Havlik RJ. Chronically depressed mood associated with elevated cancer risk in older persons. *J Natl Cancer Inst* 1998;90:1888-93.
159. Pahor M, Psaty BM, Furberg CD. Calcium channel blockers and cardiovascular risk in diabetes. *Lancet* 1998;351(9118):1810-1.
160. Byington RP, Furberg CD, Craven TE, Pahor M, Sowers JR. Isradipine in pre-diabetic hypertensives. *Diabetes Care* 1998;21(12):2103-10.
161. Pahor M, Furberg CD. Is the use of some calcium antagonists linked to cancer? Evidence from recent observational studies. *Drugs Aging* 1998;13(2):99-108.
162. Pahor M, Furberg CD. Calcium antagonists and cancer. Causation or association? *Cardiovasc Drugs Ther* 1998;12:511-3.
163. Pahor M. New study of morbidity prevalence and awareness in Africa. Nigeria. *J Am Geriatr Soc* 1998 July; 46(7):897.
164. Pahor M. European Health Promotion Program about nutrition and Alzheimer's disease. France, Italy, and Spain. *J Am Geriatr Soc* 1998 July; 46(7):896.
165. Pahor M, Shorr RI, Somes G, Cushman WC, Ferrucci L, Bailey JE, Eiam JT, Applegate WB. Diuretic-based treatment and cardiovascular events in patients with mild renal dysfunction enrolled in the Systolic Hypertension in the Elderly Program. *Arch Intern Med* 1998;158:1340-5.
166. Pahor M. Mycobacterium tuberculosis genome sequence completed. *J Am Geriatr Soc* 1998 May; 46(5):627.
167. Penninx BWJH, Guralnik JM, Mendes de Leon CF, Pahor M, Visser M, Corti MC, Wallace RB. Cardiovascular events and mortality in newly and chronically depressed older persons. *Am J Cardiol* 1998;81(8):988-94.
168. Tatti P, Pahor M, Byington RP, DiMauro P, Guarisco R, Strollo G, Strollo F. Outcome results of the Fosinopril versus Amlodipine Cardiovascular Events randomized Trial in patients with hypertension and NIDDM. *Diabetes Care* 1998;21(4):597-603.
169. Pahor M, Psaty BM, Furberg CD. Treatment of hypertensive patients with diabetes. *Lancet* 1998;351(9104):689-90.

170. Shorr RI, Johnson KC, Wan JY, Sutton-Tyrrell K, Pahor M, Bailey JE, Applegate WB. Age and prognostic significance of asymptomatic carotid bruits. *J Gen Intern Med* 1998;13:86-90.
171. Pahor M, Kritchevsky SB, Zuccala G, Guralnik JM. Diabetes and risk of adverse events with calcium antagonists. *Diabetes Care* 1998;21(1):193-4.
172. Pahor M, Psaty BM, Furberg CD. New evidence on the prevention of cardiovascular events in hypertensive patients with type 2 diabetes. *J Cardiovasc Pharmacol* 1998;32 (Suppl.2):S18-S23.
173. Pahor M, Kritchevsky SB. Research hypotheses on muscle wasting, aging, loss of function and disability. *J Nutrition Health & Aging* 1998;2(2):97-100.
174. Zuccala G, Pahor M, Lattanzio F, Vagnoni S, Rodolola F, Desole P, Cittadini A, Cocchi A, Bernabei R. Detection of arrhythmogenic cellular magnesium depletion in hip surgery patients. *Br J Anaesth* 1997;79:776-81.
175. Pahor M. Cancer risk in users of calcium channel blockers. *Hypertension* 1997;30(6):1641.
176. Ferrucci L, Guralnik JM, Harris T, Corti MC, Havlik RJ, Pahor M, Wallace RB. Apolipoprotein-E ϵ 2 allele and risk of stroke in the older population. *Stroke* 1997;28(12):2410-6.
177. Cattin L, Bordin P, Fonda M, Adamo A, Barbone F, Bovenzi M, Manto A, Pedone C, Pahor M. Factors associated with cognitive impairment among Italian elderly inpatients. Gruppo Italiano di Farmacovigilanza nell'Anziano (G.I.F.A.). *J Am Geriatr Soc* 1997;45(11):1324-30.
178. Pahor M, Applegate WB. Recent advances: geriatric medicine. *Br Med J* 1997;315(7115):1071-3.
179. Byington RP, Craven T, Furberg CD, Pahor M. Isradipine, raised glycosylated hemoglobin, and risk of cardiovascular events. *Lancet* 1997;350:1075-6.
180. Burns R, Pahor M, Shorr RI. Evidence-based medicine holds the key to the future for geriatric medicine. *J Am Geriatr Soc* 1997;45:1268-72.
181. Pahor M, Psaty BM, Furberg CD. Calcium channel blockers: what is their role in the treatment of hypertension in renal patients? *J Nephrology* 1997;9:286-9.
182. Applegate WB, Pahor M. Geriatric medicine. *JAMA* 1997 June;277:1863-4.
183. Kritchevsky SB, Pahor M. Calcium-channel blockers and risk of cancer. *Lancet* 1997;349:1400.
184. Ferrucci L, Guralnik JM, Pahor M, Corti MC, Havlik RJ. Hospital diagnoses, Medicare charges and nursing home admissions in the year when older persons become severely disabled. *JAMA* 1997;277:728-34.
185. Zuccala G, Pahor M, Landi F, Gasparini G, Pagano F, Carboni PU, Cocchi A. Use of calcium antagonists and need for perioperative transfusion in older patients with hip fracture: observational study. *Br Med J* 1997;314:643-4.

186. **Pahor M, Psaty BM, Furberg CD.** More on calcium channel blockers in nephrology. Editorial debate. *J Nephrology* 1997;10:5-6.
187. **Corti MC, Guralnik JM, Salive ME, Ferrucci L, Wallace RB, Pahor M, Hennekens CH, Havlik RJ.** Serum iron and risk of cardiovascular events in older persons. *Am J Cardiol* 1997;79:120-7.
188. **Pahor M.** Nifedipine and other calcium channel blockers. *Eur Heart J* 1997;18:168.
189. **Pahor M, Carosella L, Pedone C, Manto A, Carboni PU.** Trends of the characteristics and appropriateness of admissions to medical wards in Italy from 1988 to 1993. *Eur J Epidemiol* 1996;12:563-71.
190. **Pahor M, Guralnik JM, Carboni PU, Salive ME, Ferrucci L, Havlik RJ, Hennekens CH.** Alcohol consumption and risk of pulmonary embolism and deep venous thrombosis in older persons. *J Am Geriatr Soc* 1996;44(9):1030-7.
191. **Pahor M, Guralnik JM, Furberg CD, Havlik RJ.** Calcium channel blockers and gastrointestinal hemorrhage: more bad press? *Gastroenterology* 1996;111:1393.
192. **Pahor M, Manto A, Pedone C, Carosella L, Guralnik JM, Carboni PU.** Age and severe adverse drug reactions caused by nifedipine and verapamil. *J Clin Epidemiol* 1996;49(8):921-8.
193. **Pahor M, Guralnik JM, Salive ME, Corti MC, Havlik RJ.** Do calcium antagonists cause cancer? *Lancet* 1996;348:541-2.
194. **Landi F, Sgadari A, Cipriani L, Castellani M, Pahor M, Carboni PU, Bernabei R.** A simple program to train case managers in community elderly care. *Aging, Clinical and Experimental Research* 1996;8:211-8.
195. **Cattel C, Zuccala G, Pahor M, Carboni PU, Cocchi A.** Predictors of mortality in older patients after a stroke. *J Am Geriatr Soc* 1996;44:608-9.
196. **Ferrucci L, Guralnik JM, Salive ME, Pahor M, Corti C, Baroni A, Havlik RJ.** Cognitive impairment and risk of stroke in the older population. *J Am Geriatr Soc* 1996;44(3):237-41.
197. **Ferrucci L, Guralnik JM, Corti MC, Pahor M, Havlik RJ.** Cognitive impairment and risk of stroke in the older population (reply letter). *J Am Geriatr Soc* 1996;44:1411.
198. **Furberg CD, Pahor M, Psaty BM.** The unnecessary controversy. *Eur Heart J* 1996;17:1142-7.
199. **Havlik RJ, Pahor M, Guralnik JM, Salive ME, Corti MC.** Comments on Pahor et al's study of calcium channel blockers and cancer. *Am J Hypertens* 1996;9:1051-3.
200. **Manna R, Desantis A, Oliviero A, Carnevale A, Caputo S, Pahor M, Laudisio A, Gasbarrini G.** Leucoencephalitis after recombinant hepatitis B vaccine. *J Hepatol* 1996;24:764-5.

201. **Pahor M**, Guralnik JM, Furberg CD, Carbonin PU, Havlik RJ. Risk of gastrointestinal haemorrhage with calcium antagonists in hypertensive persons over 67 years old. *Lancet* 1996;347:1061-5.
202. **Pahor M**, Ferrucci L, Corti MC, Salive ME, Cerhan J. Calcium channel blockers and cancer. *Lancet* 1996;348.
203. **Pahor M**. News Around the World. More timely information on aging for professionals. *J Am Geriatr Soc* 1996;44:1260.
204. **Pahor M**. Carcinogenicity of lipid lowering drugs. *JAMA* 1996;275:1480.
205. **Pahor M**, Guralnik JM, Havlik RJ. Pulse pressure and mortality in older persons treated for hypertension. *J Am Geriatr Soc* 1996;44(7):881-2.
206. **Pahor M**, Guralnik JM, Ferrucci L, Corti MC, Salive ME, Cerhan J, Wallace RB, Havlik RJ. Calcium channel blockade and incidence of cancer in aged populations. *Lancet* 1996;348:493-7.
207. **Pahor M**, Guralnik JM, Salive ME, Corti MC, Carbonin P, Havlik RJ. Do calcium channel blockers increase the risk of cancer? *Am J Hypertens* 1996;9:695-9.
208. Rengo F, Carbonin PU, **Pahor M**, De Caprio L, Bernabei R, Carosella L, Ferrara N, Acanfora M, CRIS investigators. A controlled trial of verapamil in post-myocardial infarction. Results of the Calcium-Antagonist Reinfarction Italian Study - CRIS. *Am J Cardiol* 1996;77:365-9.
209. Ricercatori del GIFA. Caratteristiche dell'ospedalizzazione dei pazienti anziani prima e dopo l'avvio del pagamento a prestazione (sistema DRG-ROD). *Ann Ital Med Int* 1996;11:220-7.
210. Brown SL, Salive ME, Guralnik JM, **Pahor M**, Chapman DP, Blazer D. Antidepressant use characteristics in the elderly: association with demographic factors, health status and health care access. *J Clin Epidemiol* 1995;48:445-53.
211. Brown SL, Salive ME, **Pahor M**, Foley DJ, Corti MC, Langlois JA, Wallace RB, Harris TB. Occult caffeine as a source of sleep problems in an older population. *J Am Geriatr Soc* 1995;43:860-4.
212. **Pahor M**, Carbonin PU. Blood pressure and mortality in elderly people. *Lancet* 1995;345:1434-5.
213. **Pahor M**, Mugelli A, Guralnik JM, Sgadari A, Carosella L, Manto A, Carbonin PU. Age and laxative use in hospitalized patients. A report of the Gruppo Italiano di Farmacovigilanza nell'Anziano (GIFA). *Aging (Milano)* 1995;7:128-35.
214. **Pahor M**, Guralnik JM, Corti C, Foley DJ, Carbonin PU, Havlik RJ. Long-term survival and use of antihypertensive medications in older persons. *J Am Geriatr Soc* 1995;43:1191-7.
215. **Pahor M**, Carbonin PU. Exercise intensity and longevity in men. *JAMA* 1995;274:1132.

216. **Pahor M**, Cecchi E, Fumagalli S, Manto A, Pedone C, Carosella L, Cocchi A, Bernabei R, Gambassi G, Marchionni N, Mugelli A, Carboni P. Association of serum creatinine and age with headache caused by nitrates. *Clin Pharmacol Ther* 1995;58:470-6.
217. **Pahor M**, Guralnik JM, Salive ME. Arachidonic acid, physical activity and gastrointestinal hemorrhage. *JAMA* 1995;273:522.
218. Percesepe A, Antti M, Roncucci L, Armelao F, Marra G, **Pahor M**, Coco C, Gasbarrini G, Ponz de Leon M. The effect of family size on estimates of the frequency of hereditary non-polyposis colorectal cancer. *Br J Cancer* 1995;72:1320-3.
219. Salive ME, Jones C, **Pahor M**, Guralnik JM, Wallace RB, Havlik RJ. Serum creatinine levels in older adults: relationship with gender, health status and medications. *Age Ageing* 1995;24:142-50.
220. Gambassi G, Jr., Cerbai E, **Pahor M**, Capogrossi MC, Carboni PU, Mugelli A. Temperature affects sarcoplasmic reticulum function and modulates delayed after-depolarizations it current and reoxygenation-induced ventricular arrhythmias in myocardial preparations. *Cardiovasc Res* 1994;28:391-9.
221. **Pahor M**, Guralnik JM, Salive ME, Chrischilles EA, Brown SL, Wallace RB. Physical activity and risk of severe gastrointestinal hemorrhage in older persons. *JAMA* 1994;272:595-9.
222. **Pahor M**, Gambassi G, Jr., Carboni PU. Antiarrhythmic effects of ace-inhibitors a matter of faith or reality? *Cardiovasc Res* 1994;28:173-82.
223. **Pahor M**, Guralnik JM, Salive ME, Chrischilles EA, Wallace RB. Disability and severe gastrointestinal hemorrhage. A prospective study of community dwelling older persons. *J Am Geriatr Soc* 1994;42:816-25.
224. **Pahor M**, Guralnik JM, Chrischilles EA, Wallace RB. Use of laxative medication in older persons and associations with low serum albumin. *J Am Geriatr Soc* 1994;42:50-6.
225. **Pahor M**, Chrischilles EA, Guralnik JM, Brown SL, Wallace RB, Carboni PU. Drug data coding and analysis in epidemiologic studies. *Eur J Epidemiol* 1994;10:405-11.
226. Percesepe A, Antti M, Marra G, Roncucci L, **Pahor M**, Coco C, Armelao F, Gasbarrini G, Ponz de Leon M. Role of clinical criteria in the diagnosis of hereditary nonpolyposis colorectal cancer (HNPPC): results of a multivariate analysis. *Int J Cancer* 1994;58:799-802.
227. **Pahor M**, Guralnik JM, Gambassi G, Jr., Bernabei R, Carosella L, Carboni PU. The impact of age on the risk of adverse drug reactions to digoxin. *J Clin Epidemiol* 1993;46:1305-14.
228. Carboni PU, **Pahor M**, Olivetti G. Increased incidence of arrhythmias with aging in normal and pathological rat hearts. *Ann New York Acad Scien* 1992;673:311-20.
229. Barbieri M, Carboni PU, Cerbai E, Gambassi G, Jr., Lo Giudice P, Masini I, Mugelli A, **Pahor M**. Lack of correlation between the antiarrhythmic effect of L- propionylcarnitine on reoxygenation-induced arrhythmias and its electrophysiological properties. *Br J Pharmacol* 1991;102:73-8.

230. Carbonin PU, Ramacci MT, **Pahor M**, Di Gennaro M, Gambassi G, Jr., Lo Giudice P, Sgardari A, Pacifici L. Antiarrhythmic effect of L-propionylcarnitine in isolated cardiac preparations. *Cardioscience* 1991;2:109-14.
231. Carbonin PU, Bernabei R, Carosella L, Cocchi A, MenicHELLI P, **Pahor M**, Sgardari A, Zuccala G. Problemi di terapia cardiovascolare nell'anziano. *Cardiologia* 1991;36 (Suppl.1):275-9.
232. Carbonin PU, **Pahor M**, Bernabei R, Sgardari A. Is age an independent risk factor of adverse drug reactions in hospitalized medical patients? *J Am Geriatr Soc* 1991;39:1093-9.
233. **Pahor M**, Bernabei R, Sgardari A, Gambassi G, Jr., Lo Giudice P, Pacifici L, Ramacci MT, Lagrasta C, Olivetti G, Carbonin P. Enalapril prevents cardiac fibrosis and arrhythmias in hypertensive rats. *Hypertension* 1991;18:148-57.
234. Carbonin PU, Carosella L, MenicHELLI P, **Pahor M**, Bernabei R. Farmacocinetica e farmacodinamica del verapamil nel paziente anziano. *Cardiologia* 1990;35 (Suppl.1):483-7.
235. Carbonin PU, Di Gennaro M, **Pahor M**, Bernabei R, Sgardari A, Gambassi G, Jr. Cardiac aging, calcium overload, and arrhythmias. *Exp Gerontol* 1990;25:261-8.
236. Di Gennaro M, Sgardari A, **Pahor M**, Bernabei R, Carbonin PU. Increased propensity of aged myocardium to develop calcium-related electrophysiological alterations. *Arch Gerontol Geriatr* 1990;11:141-6.
237. **Pahor M**, Bernabei R, Gambassi G, Carbonin PU. Effects of verapamil on reoxygenation and programmed electrical stimulation-induced ventricular arrhythmias in the isolated heart. *Int J Cardiol* 1989;25 Suppl 1:S71-S79.
238. **Pahor M**, Di Gennaro M, Bernabei R, Gambassi G, Jr., Carbonin P. Programmed electrical stimulation-induced arrhythmias in isolated hearts from adult and senescent rats. *Can J Physiol Pharmacol* 1989;67:472-6.
239. **Pahor M**, Lo Giudice P, Bernabei R, Di Gennaro M, Pacifici L, Ramacci MT, Carbonin PU. Age-related increase in the incidence of ventricular arrhythmias in isolated hearts from spontaneously hypertensive rats. *Cardiovasc Drugs Ther* 1989;3:163-9.
240. Amerini S, Bernabei R, Carbonin PU, Cerbai E, Muggelli A, **Pahor M**. Electrophysiological mechanism for the antiarrhythmic action of propafenone: a comparison with mexiletine. *Br J Pharmacol* 1988;95:1039-46.
241. Cocchi A, Vecchio FM, **Pahor M**, Antico L, Franceschini G, Farina G, Carbonin PU. Autopsy rate in younger and older hospitalized patients. *Eur J Epidemiol* 1986;2:151-7.
242. Di Gennaro M, Vassalle M, Iacono G, **Pahor M**, Bernabei R, Carbonin PU. On the mechanisms by which hypoxia eliminates digitalis-induced tachyarrhythmias. *Eur Heart J* 1986;7:341-52.
243. Amerini S, Carbonin PU, Cerbai E, Giotti A, Muggelli A, **Pahor M**. Electrophysiological mechanisms for the antiarrhythmic action of mexiletine on digitalis-reperfusion- and reoxygenation-induced arrhythmias. *Br J Pharmacol* 1985;86:805-15.

1. **Pahor, M., Pedone, C., Carosella, L., Incalzi, R.A., Aimalè, R., Ferrazzi, P., and Cecchi, E.** Dai dati della letteratura alla realtà quotidiana: i riscontri del Gruppo Italiano di Farmacovigilanza nell'Anziano - GIFA. *Giornale Gerontologia* 2000.
2. **Pahor, M.** Calcium channel blockers, risk of cancer and the challenge of assessing medication safety. *J. Tenn. Med. Assoc.* 90:367-369, 1997.
3. **Antonelli Incalzi, R. and Pahor, M.** Farmacoepidemiologia dei broncodilatatori. *Giornale Gerontologia* 43:479-482, 1996.
4. **Carosella, L., Pedone, C., Manto, A., Menichelli, P., Pahor, M., and Carbonin, P.U.** La farmacocinetica del verapamil: lo Studio CRIS. *Giornale Gerontologia* 44:571-575, 1996.
5. **Pahor, M., Manto, A., Pedone, C., Carosella, L., and Carbonin, P.U.** I risultati della meta-analisi degli studi clinici controllati con verapamil. *Giornale Gerontologia* 44:585-587, 1996.
6. **Carosella, L., Manto, A., Pedone, C., Bernabei, R., and Pahor, M.** Gruppo Italiano di Farmacoepidemiologia nell'Anziano - GIFA. Il sessione di aggiornamento. *Giornale Gerontologia* 43, 1995.
7. **Antico, L., Pahor, M., Manto, A., and Sgardari, A.** L'assistenza agli anziani. Gli aspetti epidemiologici. *Quaderni di Tecnica e Gestione Ospedaliera* 3:147-150, 1994.
8. **Carbonin, P.U., Pahor, M., and Gambassi, G.** ACE-inhibition and ventricular arrhythmias. *New Trends Arrhythmias* 11:633-638, 1994.
9. **Carbonin, P.U., Bernabei, R., Manto, A., Cocchi, A., Pahor, M., and Gambassi, G.** Gli insuccessi delle politiche sanitarie per l'anziano e la crisi della sanità nei paesi sviluppati. *Difesa Sociale* 73:135-162, 1994.
10. **Pahor, M., Bernabei, R., Carosella, L., Gambassi, G., Jr., Manto, A., and Carbonin, P.U.** Mental status can bias detection of adverse drug reactions in hospitalized patients. *Facts Res. Gerontol.* 7:271-275, 1993.
11. **Carbonin, P.U., Cocchi, A., Pahor, M., and Zuccala, G.** Le aritmie nella cardiopatia ischemica dell'anziano. *Giornale Gerontologia* 40:407-409, 1992.
12. **Bernabei, R. and Pahor, M.** Le residenze sanitarie assistenziali. *Giornale Gerontologia* 38:233-235, 1990.
13. **Carbonin, P.U., Bernabei, R., Pahor, M., and Sgardari, A.** Approccio metodologico allo studio del

PUBLICATIONS: OTHER JOURNALS

244. **Pahor M., Di Gennaro M., Cocchi A., Bernabei R., Carosella L., Carbonin P.U.** Age-related incidence of reperfusion-and reoxygenation-induced ventricular tachyarrhythmias in the isolated rat heart. *Gerontology* 1985;31:15-26.
245. **Di Gennaro M., Valle R., Pahor M., Carbonin P.U.** Abolition of digitalis tachyarrhythmias by caffeine. *Am J Physiol* 1983;244:H215-H221.

PUBLICATIONS: BOOKS AND BOOK CHAPTERS

- problema dell'uso dei farmaci nell'ultraottantenne sulla base di una esperienza di farmacovigilanza su vasta scala. *Giornale Gerontologia* 38:523-528, 1990.
14. Pahor, M., Gambassi, G., Jr., Ramacchi, M. T., Lagrasta, C., Olivetti, G., Lo Giudice, P., Pacifici, L., Bernabei, R., and Carboni, P. U. Effect of enalapril on left ventricular arrhythmias in spontaneously hypertensive rats. *New Trends Arrhythmias* 6:523-528, 1990.
15. Pahor, M., Gambassi, G., Jr., Ramacchi, M. T., Bernabei, R., Sgadari, A., Lo Giudice, P., Pacifici, L., and Carboni, P. U. L-propionylcarbitine decreases the incidence of ischemic arrhythmias in open chest rat preparations. *New Trends Arrhythmias* 6:535-538, 1990.
16. Pahor, M., Lo Giudice, P., Pacifici, L., Ramacchi, M. T., and Carboni, P. U. Influence of age and hypertension on programmed electrical stimulation arrhythmias in the isolated heart. *New Trends Arrhythmias* :119-122, 1988.
17. Pahor, M., Di Gennaro, M., Bernabei, R., Pisanti, P., and Carboni, P. U. Differences between adult and senescent rat hearts in the electrophysiological mechanisms of arrhythmias. *New Trends Arrhythmias* 1:223-227, 1985.
18. Bernabei, R., Pahor, M., and Carboni, P. Le aritmie da digitale nel cardiopatico anziano. *Rasseg. Ger.* :297-305, 1984.
19. Carboni, P. U., Di Gennaro, M., Pahor, M., and Bernabei, R. Calcium overload oscillatory afterpotentials and ventricular arrhythmias. *New Trends Arrhythmias* :79-85, 1984.
20. Carboni, P. U., Cocchi, A., Antico, L., and Pahor, M. La morte improvvisa nell'eta' avanzata. *Rasseg. Ger.* :209-219, 1984.
21. Di Gennaro, M., Pahor, M., Bernabei, R., Cocchi, A., and Carboni, P. U. Calcio ed aritmie iperinetiche ventricolari: rilievi sperimentali ed implicazioni cliniche. *New Trends Arrhythmias* 4:103-120, 1984.
22. Carboni, P. U., Antico, L., Cocchi, A., Di Gennaro, M., Bernabei, R., Carosella, L., Pahor, M., and Taddel, I. Fisiopatologia e terapia delle aritmie ischemiche. *Giornale Gerontologia* 31:593-600, 1983.
23. Di Gennaro, M., Pahor, M., Bernabei, R., and Carboni, P. U. The role of calcium in the genesis of digitalis and re-oxygenation-induced arrhythmias. *Acta Medica Romana* 21:292-308, 1983.
24. Carboni, P. U., Di Gennaro, M., Bernabei, R., and Pahor, M. La performance ventricolare sinistra nel cuore senile. *Giornale Gerontologia* 30:614-621, 1982.
25. Di Gennaro, M., Pahor, M., Vassalle, M., and Carboni, P. U. Electrophysiological mechanisms of reperfusion- and digitalis-induced ventricular tachyarrhythmias. 5 seminario internazionale di cardiologia; Marilleva (Italy). *New Trends Arrhythmias* 24-26, 1982.

1. Di Bari M, Applegate WB, Furberg CD, Psaty BM, Pahor M: Hypertension. In Principles of geriatric medicine and gerontology. 4 ed. Hazzard WR, Bierman EL, Blass JP, Ettinger WH, Hatter JB, Andres R, Eds. New York, McGraw-Hill, Inc., in press 2002
2. Bernabei R, Antonelli Incalzi R, Caretta F, Cipriani L, Landi F, Lattanzio F, Pahor M, Pedone C, Petrinì C, Sgadari A, and Venturiere V. Lo strumento di valutazione VAOR per le RSA. Progetto Finalizzato Invecchiamento. Sottoprogetto 5. Invecchiamento della popolazione: qualità della vita e autosufficienza, Roma: Consiglio Nazionale delle Ricerche, 1995.
3. Carbonin P, U., Pahor M, Carosella L, Manto A, and Pedone C. Epidemiology of adverse drug reactions and aging. In: *Proceedings of the II international days of allergology and clinical immunology*, edited by Venuti A, Pocobelli D, and Gasbarrini G. B. Roma: ISPZ, 1995, p. 89-92.
4. Ferrucci L, Guralnik J, Bandeen-Roche K, Lafferty M, Pahor M, and Fried L. Physical performance measures. In: *The Women's Health and Aging Study. Health and social characteristics of older women with disability*, edited by Guralnik J, Fried L, Simonsick E, Kasper J, Lafferty M, Phillips C, Cruz J, Corti M, Ferrucci L, Pahor M, Brock D, and Skinner E. Bethesda: National Institute on Aging. NIH publication No. 95-4009, 1995, p. 35-49.
5. Pahor M, Salive M, and Brown S. Medication use. In: *The Women's Health and Aging Study. Health and social characteristics of older women with disability. NIH publication No. 95-4009*, edited by Guralnik J, Fried L, Simonsick E, Kasper J, Lafferty M, Salive M, Phillips C, Cruz J, Corti M, Ferrucci L, Pahor M, Brock D, and Skinner E. Bethesda: National Institute on Aging, 1995.
6. Salive M, Pahor M, and Tochman Pulmonary disease. In: *Women's Health and Aging Study. Health and social characteristics of older women with disability. NIH publication No. 95-4009*, edited by Guralnik J, Fried L, Simonsick E, Kasper J, Lafferty M, Salive M, Phillips C, Cruz J, Corti M, Ferrucci L, Pahor M, Brock D, and Skinner E. Bethesda: National Institute on Aging, 1995.
7. Pahor M, Carosella L, Sgadari A, Pedone C, and Manto A. Farmaci e anziano. In: *L'assistenza alla persona anziana. Aspetti teologici, etici, clinici, assistenziali, pastorali*. III, edited by Petrinì M, Caretta F, Antico L, and Bernabei R. Roma: CEPSAG - Università Cattolica del Sacro Cuore, 1994, p. 95-136.
8. Bernabei R, Pahor M, Landi F, and MenicHELLI P. Geriatric Assessment: approccio metodologico. In: *Trattato di gerontologia e geriatria*, edited by Crepaldi G. Torino: Utet, 1993, p. 186-192.
9. Pahor M. Data management. Medications database. In: *Women's Health and Aging Study. Manual of Operations. Study Design and Methods*, edited by Fried L, German P, and Guralnik J. Baltimore: NIA, 1993, p. VI-2-VI-4.
10. Pahor M, Manto A, Sgadari A, Bernabei R, Gambassi G, Jr., Carosella L, and Antico L. Il controllo di qualità dell'assistenza all'anziano: i risultati del gruppo italiano di farmacoepidemiologia dell'anziano (G.I.F.A.) sull'ospedalizzazione impropria e le reazioni avverse da farmaci. In: *Convegno CNR su: realtà e prospettive dei sistemi di valutazione dell'anziano nei servizi sociali e sanitari in Italia*, edited by Antico L, Bernabei R, Carbonin,

1. Educational CD ROM on the treatment of hypertension in patients with diabetes edited by the Vascular Biology Working Group, University of Florida. 3 CME hours. January 1999.
2. World Satellite Congress on Hypertension. Four live satellite interactive broadcasts to five continents. Overall audience of more than 10,000 physicians worldwide. Educational video. Presentation on treatment of hypertension in patients with diabetes. Main results of the FACET trial. Washington D.C., March 5, 1998.
3. Internet: Online Continuing Medical Education Course of the Vascular Biology Working Group: Cardiovascular Disease in Diabetic Patients: Possible Causes and Preventive Treatment. <http://www.vbwwg.org/> August 1998
4. Internet slide kit: Prevention of CV Events in Patients with Hypertension and Diabetes

BROADCASTING PUBLICATIONS: VIDEOS, EDUCATIONAL MEDIA, INTERNET AND SATELLITE

18. Carbonin, P.U., Di Gennaro, M., Cocchi, A., Bernabei, R., and Pahor, M. Significato clinico delle artimie da ripertusione; in atti degli incontri cardiologici mediterranei 1981. Argomenti di cardiologia. edited by Critelli, G. Roma: Pozzi, L. 1981, p. 133-144.
17. Carbonin, P.U., Di Gennaro, M., Cocchi, A., Bernabei, R., Pahor, M., and Salerno, J.A. Le artimie da ripertusione nella realtà clinica. In: *In la cardiopatia ischemica silente: simposio nazionale di cardiologia. Firenze marzo 1982*, edited by Prati, P.L. Torino: Schiapparelli, 1982, p. 245-257.
16. Carbonin, P.U., Di Gennaro, M., Bernabei, R., Cocchi, A., Carosella, L., Pahor, M., and Taddei, I. The use of the antiarrhythmic agents in the elderly. In: *Aglyng and drug therapy*, edited by Barbagallo-Sangiorgi, G. and Exton Smith, A.N. Roma: Plenum Publishing Corporation, 1984, p. 283-310.
15. Carbonin, P.U., Di Gennaro, M., Bernabei, R., and Pahor, M. Farmaci metabolici e miocardiotrofici stato reale delle nostre conoscenze. Roma: 1985, p. 532-542.
14. Carbonin, P.U., Bernabei, R., Ferrara, N., Rengo, F., and Pahor, M. Calcium antagonist reinforcement Italian study. Study design. In: *Hypertension-the next decade*, Berlino: Knoll, 1985, p. 193-196.
13. Carbonin, P.U., Pahor, M., and Ricercatori del GIFA. *La qualità dell'assistenza all'anziano in ospedale. Gruppo Italiano di Farmacovigilanza nell'Anziano (GIFA)*, Milano: Vita e Pensiero, 1990.
12. Bernabei, R., Carbonin, P.U., Cocchi, A., Pahor, M., Sgardari, A., and Zuccala, G. Invecchiamento e patologia cardiovascolare. Milano: Librex, 1990, p. 30-34.
11. Bernabei, R., Pahor, M., Carosella, L., Sgardari, A., Del Sindaco, D., Menicelli, P., Gambassi, G., jr., and Carbonin, P.U. Il controllo di qualità nell'assistenza all'anziano. In: *Non autosufficienza dell'anziano strategie operative e sistema sanitario nazionale a confronto*, edited by Carbonin, P.U. and Bernabei, R. Milano: Vita e Pensiero, 1990, p. 167-185.
- P.U., Caretta, F., and Petrin, M. Roma: CNR, 1992, p. 123-168.

1. University of Miami, Geriatric Grand Rounds: Grand Rounds Physical activity to maintain independence in older persons. Miami, FL, January 2007.
2. Italian Society for Gerontology and Geriatrics annual meeting: Opening session keynote speaker: The LIFE study, Florence, Italy, November 2006
3. Program highlight speaker: Study of fractures Steering Committee Meeting, San Diego, Ca, May 15, 2005, Lecture title: Biological markers and physical function in elders.
4. Program highlight speaker: National Institute on Aging National Advisory Council On Aging, Ninety-Third Meeting, Bethesda, September 23, 2004, Lecture title: Aging, ACE Inhibition and Physical Performance.
5. Invited speaker. American Aging Association - 33rd Annual Meeting. St. Petersburg, FL, June 4, 2004. Lecture title: "Effects of physical exercise on inflammation"
6. Invited keynote speaker. International Academy of Nutrition and Aging. Albuquerque, NM, July 11, 2003. Lecture title: "A muscular approach to physical disability and its prevention"
7. Invited Speaker, University of Modena, Italy, Geriatrics Grand Rounds, April 15, 2003. Lecture title: Cytokinemias, cardiovascular disease and disability
8. Invited Speaker, Albert Einstein University, Epidemiology Grand Rounds, New York, NY, December 10, 2002. Lecture title: Inflammation, cardiovascular events and disability in older populations.

RECENT VISITING PROFESSORSHIPS, CME PROGRAMS AND INVITED LECTURES

ABSTRACTS: over 200 at national and international meetings

5. Educational slide kit on the Prevention of Cardiovascular Events in Patients with Hypertension and Diabetes. December 1997.
6. Educational slide kit on Evidence Based Medicine. June 1997.
7. Educational slide kit on Safety of Calcium Channel Blockers. February 1997.
8. Educational slide kit on Prevention in Older Age. November 1996.
9. EuroTransMed live satellite interactive broadcasting to 20 European countries on the safety of calcium channel blockers, London, United Kingdom, May 1996.
10. Video: The Women's Health and Aging Study, Educational Video of the Home Exam in Older Disabled Women. Guralnik JM, Fried LP, Simonsick EM, Kasper JD, Lafferty ME, Salive ME, Phillips CL, Cruz JV, Corti MC, Ferrucci L, Pahor M, Brock DD, Skinner EA. National Institute on Aging. NIH publication, Bethesda 1995.

<http://www.vbwg.org/meetings/051298/pahor/summary.htm> August 1998

9. Invited Speaker, Italian Society of Gerontology and Geriatrics, Montecatini, Italy, November 10, 2002. Lecture title: Intervention trials for the prevention of disability in frail older persons.
10. Invited Speaker: COSECH Meeting, Savannah, Georgia, October 19, 2002. Lecture title: "The Master's Debate: Bridging Research and Clinical Treatment with Clinical Outcomes to Reduce Target Organ Damage in Hypertension - Diuretics".
11. Invited Speaker, Italian Association of Hospital Cardiologists, annual national meeting, Florence, Italy, May 21, 2002, Lecture title: Lessons Learned From the Landmark Statin Trials.
12. Invited Speaker, American Society for Hypertension annual national meeting, New York, NY, May 16, 2002, Lecture title: The need for cardiovascular risk assessment: rationale and practical guidelines. Symposium title: Assessment of Cardiovascular risk: why and how?
13. Invited speaker, Comparative Biology of Aging Workshop, National Institute on Aging, Bethesda, MD, February 6-7, 2002, Lecture Title: Behavioral correlates in the rat.
14. Invited speaker, Russian Academy of Sciences, Moscow, April 5, 2001. Lecture title: Comparative effects of antihypertensive therapies
15. Invited speaker, Department of Preventive Medicine, University of Buffalo, Buffalo, NY, April 30, 2001, Lecture title: Prevention of physical disability in older persons.
16. Invited speaker, Brookdale Department of Geriatrics and Adult Development, Mount Sinai School of Medicine, NY, March 17, 2001. Lecture title: Novel risk factors of physical disability in older persons.
17. Invited speaker, plenary session of the Italian Society of Gerontology and Geriatrics annual meeting, Florence, Italy, November 23, 2000. Lecture title: New risk factors of physical disability in older persons and novel avenues for intervention
18. Internal Medicine Grand Rounds, Wake Forest School of Medicine, Winston Salem, NC, October 5, 2000. Lecture title: Therapeutic effects of calcium antagonists and other agents.
19. Invited speaker, International Symposium on cardiovascular risk in special populations. Hypertensive disease in women. Bologna Italy, 9/22-23, 2000. Lecture title: Physical disability, an emerging complication of hypertension. Focus on older women.
20. Invited Speaker, International Society of Hypertension Meeting, Chicago, August 19, 2000. Lecture title: The calcium channel blocker controversy in diabetes
21. Visiting Professor, Catholic University, Rome, Italy, February 11, 2000. Lecture title: Cytokines and disability in older persons
22. Invited Speaker at the American Diabetes Association meeting in San Diego, Debate: Should ACE inhibitors be the first line agents for the treatment of hypertension in patients with type 2 diabetes? June 19, 1999.
23. Visiting Professor at Wake Forest University School of Medicine, Winston Salem, NC, Grand Rounds in Medicine: Disease, inflammation and etiology of disability in older persons. March 31-April 1, 1999.

24. Visiting Professor at University of California San Francisco. Lecture: Disease, inflammation and etiology of disability in older persons. March 16-18, 1999.

25. Visiting Professor at Johns Hopkins University, Baltimore, MD: Lecture: Disease, inflammation and etiology of disability in older persons. March 9-10, 1999.

26. Association of Black Cardiologists. Fourth Annual Cardiovascular Summit: Focus on High Risk Patients. Charleston, SC. Lecture: Recent trials in diabetic hypertensives, January 16, 1999.

27. Grand Rounds in General Internal Medicine, University of Tennessee, Memphis. Lecture: Management of hypertension in diabetes, January 27, 1999.

28. The Second International Workshop on Advanced Drug Research in Cardiology. Continuing Medical Education Programme. Lecture: The diabetes hypertension trials, Monte Carlo, December 2-5, 1998.

29. Invited member of the lecturing faculty for the Vascular Biology Working Group Grand Rounds lecture program entitled: "insults to the vessel wall: redefining therapy for cardiovascular disease". This program is sponsored by the University of Florida College of Medicine. November 20, 1998.

30. American Heart Association annual meeting Satellite Symposium: Hypertension Management in the Next Millennium Key issues and Treatment Options. Continuing Medical Education Programme. Debate question: Should calcium antagonists be the first line agents for the management of hypertension? Dallas, TX, November 1998

31. Vascular Biology Working Group (VBWG) Meeting. Continuing Medical Education Programme. Lecture: Treatment of hypertension in diabetes. Atlanta, October 1998.

32. Coalition for the Advancement of Cardiovascular Health (COACH). Atlanta. Continuing Medical Education Programme. Lecture: The Diabetic Hypertensive patient, October 1998

33. Visiting Professor, EMGO-Institute, The Free University, Amsterdam, The Netherlands. Lecture: Treatment of hypertension and surrogate outcomes. June 1998

34. Austrian Society of Cardiology Meeting. Gmunden, Austria. Lecture: Prevention of cardiovascular events in diabetes. June 1998

35. International Society of Hypertension Meeting. Satellite Symposium, Amsterdam. Lecture: The Netherlands. F.A.C.T., ABCD and MIDAS trials. June 1998

36. Swiss Medical Tribune Round Table on Treatment of Hypertension, Amsterdam, The Netherlands. June 1998

37. American Society of Hypertension. New York. Lecture: The F.A.C.T. trial. May 1998

38. Vascular Biology Working Group. New York. Continuing Medical Education Programme. Lecture: Prevention of cardiovascular events in patients with diabetes and hypertension. May 1998

39. University of Florence, Italy. Grand Rounds in Medicine. Lecture: Treatment of hypertension in

patients with type 2 diabetes. April 1998

40. World Congress of Cardiology. Salvador, Brazil. Lecture: Prevention of cardiovascular events in diabetes. April 1998

41. American College of Cardiology meeting. Satellite Symposium. Atlanta, GA, Prevention of cardiovascular events in patients with diabetes. March 1998

42. College of Physicians, San Juan Puerto Rico. Continuing Medical Education Programme. Lecture: Prevention of cardiovascular events in patients with diabetes. March 1998

43. Thai Hypertension coalition, Bangkok, Thailand. Lecture: 1. The JNC VI guidelines. Lecture: 2. The treatment of hypertension in patients with diabetes. February 1998

44. European Cardiology Meeting, Barcelona, Spain. Satellite symposium. Prevention of cardiovascular events in patients with hypertension and diabetes: FACET trial. January 1998

45. American Heart Association scientific sessions - Orlando, FL. Satellite Symposium. Prevention of cardiovascular events in patients with diabetes and hypertension. November 1997

46. Italian Society of Gerontology and Geriatrics, Rome, Italy, Evidence-based medicine and use of cardiovascular therapies. November 1997

47. Pan-American Congress of Cardiology. San Juan, Puerto Rico. Surrogate outcomes and evidence based medicine. September 1997

48. Preventive Cardiology Conference, Montreal, Canada, Assessment of cardiovascular outcomes. June 1997

49. European Society of Hypertension, Milan, Italy, Japan Medical Tribune Round table on calcium antagonists. June 1997

50. Visiting Professor, University of Washington, Seattle. Seminars in Epidemiology. Lectures: 1. Calcium channel blockers and cancer: update on the scientific evidence. 2. Evidence-based medicine beyond surrogate outcomes. June 1997

51. Latin American and Caribbean Symposium, Miami, FL, Controversies in hypertension. Where are we now? April 1997

52. French Society of Gerontology and Geriatrics, Toulouse, France. 1. Muscle wasting in the elderly. 2. Round Table: How to publish in international journals. March 1997

53. College of Physicians of Hong Kong, Hong Kong. Antihypertensive treatment and assessing medication safety. February 1997

54. College of Physicians of Singapore, Singapore. Antihypertensive treatment and assessing medication safety. February 1997

55. College of Physicians of Malaysia, Kuala Lumpur, Malaysia. Antihypertensive treatment and

56. Italian Society of Gerontology and Geriatrics, Florence, Italy. Meta-analysis of clinical trials of verapamil in coronary heart disease. November 1996

assessing medication safety. February 1997

Marco Pahor, M.D.



Thomas C. Foster, Ph.D.

CURRICULUM VITAE

Thomas C. Foster

Evelyn F. & William L. McKnight Brain Institute

University of Florida

College of Medicine

Department of Neuroscience

PO Box 100244

Gainesville, FL 32610-0244

Telephone:

(352) 392-4359

(352) 392-8347

Fax:

foster@mbi.ufl.edu

E-mail:

EDUCATION:

B.S. (Psychology, Biology/Chemistry)

Honors and Distinction

University of Arizona

Tucson, Arizona, 1981

Ph.D. (Physiology/Pharmacology)

Bowman Gray School of Medicine

Winston-Salem, North Carolina, 1987

PROFESSIONAL ASSOCIATIONS

1989-present

Society for Neuroscience

2006-Present

Gerontology Society of America

ADVISING ACTIVITIES

Doctoral Trainees

Christina Aenlle 2004-2009

Travis Jackson 2006-present

Karthik Bodhinathan 2006-present

Wei-Hua Lee 2007-present

Postdoctoral Trainees

Ashok Kumar, Ph.D. Lucknow University, India, Research Assoc, 2000-present.

Zane Zeier Ph.D. University of Florida 2008-2009

ADMINISTRATIVE ACTIVITY

2009-20010 Host for the Third Annual McKnight Brain Research Foundation Inter-

Institutional meeting

2009 Chair for the committee overseeing the Age-Related Memory Loss Program.

2009 Search Committee member for Age-Related Memory Loss Program.

1. Jackson, T.C., Rani, A., Kumar, A., and Foster, T.C. (2009) Regional hippocampal differences in AKT survival signaling across the lifespan: implications for CA1 vulnerability with aging.

ARTICLES

PUBLICATIONS (Selected from a total of 67 peer reviewed manuscripts, 10 chapters/reviews)

Estrogen and cognition over the lifespan, (Foster PI) 7/1/10 to 6/30/15

Submitted Grants Signaling cascades and memory deficits during aging. (Foster PI) 4/01/2010 to 3/31/2014

Submitted Grants

\$1,183,067 direct costs.

NIA T32 (Meyer PI, Scarpace Co-PI) Training in Neurobiology of Aging. 5/1/06 to 4/30/11,

As Preceptor

to 06/30/2010, \$225,000.

NINDS R01 NS041012 (Notterpek PI) Cellular events in heritable peripheral neuropathies 07/01/05

As Co-Principal Investigator

NIMH R01 MH59891 Estrogen and cognition over the lifespan, 3/16/05 to 3/15/10, \$1,250,000.

\$184,500

NIA R01 AG14979 Mechanisms of altered synaptic function during aging 6/01/07 to 5/31/2012,

As Principal Investigator

CURRENT EXTRAMURAL GRANT SUPPORT (2009)

Aging

2009 Sticht Center Conference on Aging. Cellular and molecular basis of brain aging. The Kulynych Center for Memory and Cognition Research in the J. Paul Sticht Center on

National

modulation of neural function in aged brain.

2009 Spring Hippocampal Research Conference, Verona Italy. Calcium homeostasis and

International

NATIONAL AND INTERNATIONAL SPEAKING ENGAGEMENTS

-Member of the planning committee for the Cognitive Aging Summit II 2009-2010
-Associate Editor Frontiers in Aging Neuroscience 2009

NATIONAL AND INTERNATIONAL PROFESSIONAL ACTIVITY

2006-present Director for Basic Sciences and Biology on Aging Core for the Institute on Aging

Neurodegenerative Disease.

2009 Search Committee for the new Center for Translational Research in

Aging and Memory Clinical Translational Research Program (CAM-CTRP).

2009 Search Committee to find a Program Director and Professor for the Cognitive

Thomas C. Foster, Ph.D.

2. Cui, L., Hofer, T., Rani, A., Lueuwenburgh, C., and Foster, T.C. (2009) Comparison of lifelong and late life exercise on oxidative stress in the cerebellum. *Neurobiology of Aging*, 30: 903-909.
3. Aenlle, K.K., Kumar, A., Cui, L., Jackson, T.C. and Foster, T.C. (2009) Effects of cyclic estrogen treatment on cognition and transcription in the hippocampus of middle-aged mice. *Neurobiology of Aging*, 30: 932-945.
4. Madorosky, I., Opalach, K., Waber, A., Verrier, J., Solimo, C., Foster, T., Dunn, W., and Notterpek, L. (2009) Intermittent fasting alleviates the neuropathic phenotype in a mouse model of Charcot-Marie-Tooth disease. *Neurobiology of Disease*, 34: 146-154.
5. Zeier, Z., Kumar, A., Foster, T. C., and Bloom, D.C. (2009) Fragile X mental retardation protein replacement restores hippocampal synaptic function in a mouse model of fragile X syndrome. *Gene Therapy*, 16: 1122-1129.
6. Jackson, T.C. and Foster, T.C. (2009) Regional health and function in the hippocampus: Evolutionary compromises for a critical brain region. *Bioscience Hypotheses*, 2: 245-251.
7. Carter, C.S., Lueuwenburgh, C., Daniels, M., and Foster, T.C. (2009) Contribution of increased physical activity to learning and memory performance after calorie restriction in a rodent model of aging. *Journal of Gerontology: Biological Sciences*, 64: 850-859.
8. Aenlle, K., and Foster, T.C. (2009) Aging alters the expression of genes for neuroprotection and synaptic function following acute estradiol treatment. *Hippocampus* in press.
9. Bodhinathan, K., Kumar, A., Jackson, T.C. and Foster, T.C. Alterations in N-methyl D-aspartate receptor function in the aged brain: Role of oxidative stress. *Journal of Neuroscience* in press 12/2009.
10. Kumar, A., Bodhinathan, K., and Foster, T.C. Cell selective vulnerability to calcium dysregulation during brain aging. *Frontiers in Aging Neuroscience* in press 10/2009.
11. Zeier, Z., Madorosky, I., Xu, Y., Ogle, W. O., Notterpek, L., Foster, T. C. Regionally specific gene expression in the hippocampus; effect of aging and caloric restriction. In revision for resubmission.
12. Aenlle, K., Kumar, A., Rani, A., and Foster, T.C. (2009) Hippocampal gene expression in ER α knockout (ER α KO) and ER β knockout (ER β KO) female mice. In preparation.

RECENT ABSTRACTS

T.C. Jackson, T.C. Foster (2009) Role of PHLPP1 in hippocampal neurons. *Soc for Neurosci.*

Thomas C. Foster, Ph.D.
B. K. Ormerod, R. B. Speisman, A. Kumar, T. C. Foster (2009) Biomarkers predict successful versus unsuccessful aging in rats. Soc for Neurosci.

W.-H., Lee, T.C. Foster (2009) The role of SOD1 in brain aging. Soc for Neurosci.

A., Kumar, A., Rani, K., Bodinathan, T.C. Foster (2009) Selective Estrogen Receptor Agonists, PPT and DPN Differentially Regulate Hippocampal Synaptic Transmission in Estrogen Receptor alpha and Beta KO Mice. Soc for Neurosci.

K., Bodinathan, A., Kumar, T.C. Foster (2009) Influence of redox state on the afterhyperpolarization in CA1 pyramidal neurons: role for ryanodine receptor oxidation during aging Soc for Neurosci.

CURRICULUM VITAE
Christiaan Leeuwenburgh, PhD

Institute on Aging, <http://www.aging.ufl.edu/>
 University of Florida, College of Medicine
 Division of Biology of Aging
 Department of Aging and Geriatric Research
 PO Box 112610
 Gainesville, FL 32611

Fax: (352) 273-5920
 Division: (352) 273-6796
 Department: (352) 265-7228
 Email: cleeuwen@aging.ufl.edu
 Web: <http://grove.ufl.edu/~cleeuwen/>

Positions
 1995-1998 Washington University School of Medicine, St. Louis, Department of Internal Medicine, Divisions of Geriatrics and Gerontology, and Atherosclerosis, Nutrition and Lipid Research Postdoctoral Fellow in Internal Medicine and Geriatrics and Gerontology; Research Associate in Medicine; Adjunct Instructor; Mentors: John O. Hollloszy, MD and Jay W. Heinecke, MD 1998-2002 Assistant Professor and Director of the Biochemistry of Aging Laboratory, Gainesville, University of Florida
 1998- Faculty Associate of the Institute on Aging and Center for Gerontological Studies 2002-2005 Associate Professor and Director of the Biochemistry of Aging Laboratory, University of Florida
 2005-2007 Associate Professor, College of Medicine, Department of Aging and Geriatric Research
 2005-2007 Chief, Division of Career Development, Mentoring and Education
 2005- Director, Genomics and Biomarkers Core of the University of Florida Institute on Aging, Joint Faculty, Departments of Anatomy and Cell Biology, and Biochemistry and Molecular Biology 2006- Chief, Division of Biology of Aging, Department of Aging and Geriatrics
 2007- Professor, College of Medicine, Department of Aging and Geriatrics, Division of Biology of Aging

Education
 1995-1998 Washington University School of Medicine, St. Louis, MO. Department of Internal Medicine, Divisions of Geriatrics and Gerontology, and Atherosclerosis, Nutrition and Lipid Research Postdoctoral Fellow in Internal Medicine and Geriatrics and Gerontology; Research Associate in Medicine; Adjunct Instructor; Mentors: John O. Hollloszy, MD and Jay W. Heinecke, MD 1993-1995 Honorary Fellow and Predoctoral Fellow, American Heart Association, University of Wisconsin, Madison, WI and University of Illinois, Urbana-Champaign, IL
 1990-1995 PhD (1995), University of Illinois, Urbana-Champaign, IL
 1986-1990 BS (1988) and MS (1990), University of Florida, Gainesville, FL

Awards

2004 Nathan W. Shock Lecture Award Winner, National Institute on Aging
 (Nathan W. Shock was a former scientific director of the NIA and an NIH Scientist Emeritus)
 2004-2005 University of Florida Research Foundation, Professor Award
 2000 American Heart Association, Young Investigator Award, FL
 1999-2000 Merck Geriatric Cardiology Research Award, Society of Geriatric Cardiology
 1997-1998 National Research Service Award, NRS-A-NIH, National Institute of Aging
 1996 Young Investigator Award, Oxygen Society, Intern. Soc. Free Rad. Res., Miami, FL
 1993-1995 American Heart Association, Pre-doctoral Fellowship, Illinois Affiliate

Study Sections and Grant Reviews

2009 Canada Foundation for Innovation (CFI)
 2009 Netherlands Prinses Beatrix Fonds, Muscle Diseases
 2009 NIA Challenge Grants (Stage I reviewer)
 2008 ZRG1 CVS-P (02) Center for Scientific Review SEP, Cardiac Metabolism
 2007 ZAT1 SM-07, "National Centers of Excellence for Research on Complementary and Alternative Medicine (CERC)"

Post-doctoral students trained and current positions

Current Committee member doctoral students
 Natasha Moningka (Department of Physiology and Functional Genomics) (Primary Mentor, Chris Baylis)
 Karthik Bodhinathan (Department of Neuroscience), McKnight Brain Institute (Primary Mentor, Tom Foster)
 HyeYoung Nam (Food Sciences and Human Nutrition) (Primary Mentor, Mitch Knudson)

Priya Dutta, Doctoral Student (Anatomy and Cell Biology Concentration) co-Mentor with Dr. Dunn
 Arnold Young Seo, Doctoral Student (Anatomy and Cell Biology Concentration) co-Mentor with Dr. Aris.
 Judy Hwang, Doctoral Student (Anatomy and Cell Biology Concentration) co-Mentor with Dr. Kim

The Interdisciplinary Program (IDP) in Biomedical Sciences at the University of Florida, College of Medicine, PhD graduate program.
Current doctoral students (Primary Mentor):

2009, Thomas Buford, Lecturer, Department of Aging and Geriatric Research (CTSI Scholar, Primary Mentor)
 2009, Baharak Moshiree, Assistant Professor, Department of Medicine, Director of Motility, Gainesville, Florida, Division of Gastroenterology, Hepatology and Nutrition (CTSI Scholar, MAC mentor)
 2007, Terri Chmielewski, Assistant professor Department of Physical therapy (Co-primary mentor) K-Award
 2009, Steve Anton, Assistant professor, Department of Aging and Geriatric Research (Co-primary mentor)
 2008, Todd Manini, Assistant Professor, Department of Aging and Geriatric Research (Pepper Scholar)
 2011 American Heart Association Fellow.
 2006, Jinze Xu, PhD, Post-doc, Department of Aging and Geriatric Research (Post-doc 2006-2008) 2009-
Current mentors of Junior Scholars of Center and Training Grants and Departmental Affiliation

2007-2008, Silvia Giovannini, MD (Post-doc)
 2005- Emanuele Marzetti, MD, PhD (Lecturer)
 2004- Stephanie Wohlgemuth, PhD (Lecturer) Pepper Scholar
 2007- Christy Carter, PhD (Assistant Professor)
Post-doctoral associates, Adjunct Scientist and Junior Faculty in Division of Biology of Aging:

Professional Organizations (Member)
 2003- American Aging Association (AGE) Scientific Board Member
 2003- Gerontological Society of America (GSA)
 1997-2008 The American Physiological Society (APS)
 1995-2008 Society for Free Radical Biology and Medicine (SFRBM)
 1995-2008 International Society for Free Radical Research (ISFRBM)

2006-2003 American Heart Association, Peer Review Committee (Florida)
 2002-2003 Research Committee Society of Geriatric Cardiology
 2006 ZAG1 ZIU-6 NIA Special Emphasis Panel/Scientific Review Group 2006/10
 2006 ZAG1 ZIU-5 NIA Program Project Grants, Special Emphasis Panel/Scientific Review
 2006 ZAT1 SM National center for complementary & alternative medicine
 2006 American Heart Association, Peer Review Committee (Florida)
 2006 ZAG1 ZIU-2 NIA Program Project Grants, Special Emphasis Panel/Scientific Review Group
 2006 ZAG1 ZIU-5 NIA Program Project Grants, Special Emphasis Panel/Scientific Review Group
 2005 ZAG1 ZIU-5 NIA Program Project Grants, Special Emphasis Panel/Scientific Review Group
 2005 ZAG1 ZIU-2 NIA Special Emphasis Panel/Scientific Review Group 2005/01
 2004 NIA Special Emphasis Panel/Scientific Review Group
 2003 ZAG1 ZIU-5 NIA Program Project Grants, Special Emphasis Panel/Scientific Review Group
 2003 ZAG1 ZIU-5 NIA Program Project Grants, Special Emphasis Panel/Scientific Review Group
 2003 ZAG1 ZIU-5 NIA Program Project Grants, Special Emphasis Panel/Scientific Review Group

1999-2000, Pattie Green, (PhD), Post-doc, Washington University School of Medicine, St. Louis; Instructor, Washington University, Adjunct Scientist, Seattle

2001-2002, Rajani Shelke (PhD; India), Post-Doc: Molecular Neurogenetics, Harvard University, Massachusetts General Hospital, Research Fellow, Molecular Neurogenetics Unit

2002-2003, Collin Selman (PhD in Zoology; Scotland); Instructor; Department of Metabolic Medicine, Imperial College Faculty of Medicine, London; Centre for Diabetes, Endocrinology and Metabolism, Rayne Institute, University College London

2001-2004, Barry Drew, (PhD Chemistry, USA), Analytical Scientist, JRH Biosciences, Lenexa, Kansas
2005-2006, Stephane Servais, PhD, Assistant Professor, Universite Francois Rabelais, France

2006-2008, Bhaskar Malayappan, PhD.

2007-2008, Silvia Giovannini, MD (Post-doc), University of Rome Sacred Heart

2005-2008, Tim Hofer, University of Troms, Norway, Research Associate

Graduate students trained and current positions (Primary Mentor)

1998-2004 Sharon Phanert Judge (PhD), Senior Biological Scientist, Dept. of Endocrinology, University of Florida.
2000-2004, Tracey Phillips (PhD), Medical School, Liverpool, UK
1998-2002, Amie Dirks (PhD) Post-Doc, Radiation Oncology, Stanford University, Assistant Professor, Wingate University School of Pharmacy.

1999-2001, April Childs, (MS), Research Fellow, Mayo Clinic, Jacksonville FL
2001-2002, Neeharika Choudry (MS), Residency, Medical School Chicago
2002-2003, Dore DeBartelo (MS) Osteopathic Medicine
2002-2004, Jason Maslow (MS) Physician Assistant, North Carolina
2001-2003, Youngmok Jang, (MS), Post Doc, San Antonio Medical School

2004-2007, Asimina Hiona, Doctoral Student, Biochemistry and Molecular Biology Concentration, Post-doc Stanford University.

Graduate students trained and current positions (Committee Mentor)

2004-2007, Holly L Petty, (Food Sciences and Human Nutrition) (Primary Mentor, Hordur Kristensen) 2004-2007, Joanne Joyner-Matos (Zoology) Ecology, clams, oxidative stress (Primary Mentor, David Julian), Assistant Professor

2004-2007, Robin Minor (Food Sciences and Human Nutrition) (Primary Mentor, Sue Percival) at NIA Sara Aldaus (Food Sciences and Human Nutrition) (Primary Mentor, Hordur Kristensen) Krystaine Lopes (Department of Neuroscience), Biochemistry and Molecular Biology Concentration, (Primary Mentor, Jake Strait) Ben Predmore (Department of Zoology) (Primary Mentor, David Julian), Post-doc Emory University

Undergraduates and current positions

Adriana Zivkovic, 2009, Pre-Med
Sheila Chandran, 2009, Pre-Med

Rizwan Kalani (Biochemistry and Mathematics) University Scholar 2004-2005 and 2005-2006 University Scholar, USA; (Accepted in the Junior Honor's Medicine Program 2006), Medical Student UF.

Michael Pollack, University Scholar, Ph.D. Program, Pharmacology Program, University of Pennsylvania
Michelle Williams, Ph.D. Pharmacology Program, University of Pennsylvania

Renee Claxton, University of Florida Medical School
Katherine Welch, University of Florida Medical School
Nam-Phuong Nguyen, University of Florida Medical School

Jill Goldstein, (Outstanding Female Leadership Award 2000 at the University of Florida)
Sarah Adams, University Scholar, (Outstanding Female Leadership Award 2000 at the University of Florida)

Rosanna Guerrero, University of Miami Medical School

Manish Patel, University of Miami Medical School

Richard Mattison, Medical School, Norfolk, VA

Sabrina Simcox, Physical Therapy, Washington University School of Medicine

Kie Lee, Pre-Med (Intern from Northwestern University, Chicago), Med School Applicant

Alap A. Shah, Pre-Med (Intern from Harvard University), Med School Applicant

Shannon Swant, Physician Assistant, Boston U.

Swati Patel, Pre-Med

Seema Qaiyumi, Medical School, North Carolina

Hong Vo (Pre-med), Med School Applicant

Joaquin Antonio Bestard (Bio-Engineering), USA

Kristin Toscano, (Microbiology and Cell Science), USA

Sivam Joshi, Pre-Med (Duke University and UF summer 2005).

Short-term International Scholars

2009 Anna Picca, (Primary mentor Dr. Angela Lezza) Dottorato di Ricerca in Biochimica, Biologia

Molecolare e Bioinformatica (Dr. Maria Nicola Gadeleta), University of Bari, Bari, Italy

2008 Eva Philipp, PhD, Institute of Clinical Molecular Biology, Dept. of Cell Biology, Kiel, Germany

2007 Alejandro Khalil Samhan-Arias (primary Mentor: Dr. Carlos Gutierrez-Merino, Professor of

Biochemistry and Molecular Biology, Depto. Bioquímica y Biología Molecular, Facultad de Ciencias

Universidad de Extremadura, 06071-Badajoz, Spain).

2006 Miguel Angel Garcia Bereguain and Alejandro Khalil Samhan-Arias (primary Mentor: Dr. Carlos

Gutierrez-Merino, Professor of Biochemistry and Molecular Biology, Depto. Bioquímica y Biología

Molecular, Facultad de Ciencias. Universidad de Extremadura, 06071-Badajoz, Spain).

2005 (Summer) Alberto Sanz Montero, Universidad Complutense, Department of Biology, Madrid, Spain,

Mitochondrial DNA damage and oxidant production with age.

2005 (7-months) Evelyn Kouwenhoven, Opleiding Biologie en Medisch, Laboratoriumonderzoek aan Avans

Hogeschool, Faculteit Techniek en Natuur, Afdeling Life Science, Breda, Netherlands.

2004 (Summer) Mercedes Prudencio-Alvarez, Faculty of Science, University of Extremadura. Badajoz,

Spain

2003; Laurie Lanier (7-months); France; Chemical Engineering student, specializing in Biotechnology

and in Chemical Engineering Processes in the Department of Chemical Engineering at the University of

Applied Sciences in Münster, Germany. Diplome Universitaire de Technologie DUT in Chemistry from the

University of Grenoble in France.

2002 and 2003 (Summer) Ricardo Gredilla, Universidad Complutense, Department of Biology, Madrid,

Spain, Mitochondrial DNA damage and oxidant production with age.

National and International Collaborations

- Professor Thomas Prolla, University of Wisconsin-Madison, Departments of Genetics & Medical Genetics,

- Professor Hae Young Chung Ph.D., Dean College of Pharmacy, Pusan National University, Pusan South

Korea. Inflammation Biology Aging and Disease

-Esther E. Dupont-Versteegden, PhD, University of Arkansas, Associate Professor Geriatrics and

Physiology and Biophysics, Center on Aging. Apoptosis, muscle atrophy and aging

-Professor Tory Hagen, Linus Pauling Institute, Oregon State University, Mitochondria and aging

-Professor Gustavo Barja, Universidad Complutense, Department of Biology, Madrid, Spain, Mitochondrial

DNA damage and oxidant production with age

-Dr. Angela Lezza and Professor Nicola Maria Gadeleta, University of Bari, Bari, Italy. Mitochondrial

Deletions in Skeletal muscle with Age

-Professor Tilman Grune, Research Institute for Environmental Medicine at the Heinrich Heine University

Düsseldorf Molecular Aging Research, Auf'm Hennekamp 50 40225, Düsseldorf, Germany. Proteosome

function and protein aggregation with age

-Professor John Speakman, Aberdeen University, U.K. and Effects of age and calorie restriction on daily energy expenditure using the doubly labeled water technique.
-Dr. Colin Selman, Integrative Physiology, School of Biological Sciences, University of Aberdeen. Metabolism, aging, reactive oxygen species.

Patent

Patent No: US 6,541,265 B2; Date of Patent Apr. 1, 2003. "Method and system to test a substance for inflammatory or oxidant properties". Inventor: Christiaan Leeuwenburgh. Assignee: University of Florida, Gainesville, FL (US); Application No. 09/852,194; Filed May 9, 2001.
<http://apps.rgp.ufl.edu/otl/pdf/marketing/10523.pdf>

CONTRACTS and GRANTS

LEEUWENBURGH, CHRISTIAAN

ACTIVE

2R01 AG 17994-06 NIH (Leeuwenburgh)
National Institutes of Health/National Institute on Aging
Project Title: Molecular Mechanisms of Oxidative Stress in Aging Muscle
The major goals for this project are to study mitochondrial function, energy production and oxidative stress with age in cardiac and skeletal muscle.

NIA R01AG14979 (Foster)
National Institutes of Health/National Institute on Aging

Project Title: Mechanism for Altered Synaptic Function During Aging
The aim of these studies is to investigate the molecular mechanisms of synaptic function during aging and to explore potential interventions.

1 P30 AG028740-01 (Pahor)
National Institutes of Health/National Institute on Aging

Claude D. Pepper Older Americans Independence Center (OAIC)
The major goals of this program are to assess the mechanisms that lead to sarcopenia and functional decline, and to develop and test interventions for the treatment and prevention of physical disability in older adults.

USDA/NRIGP (Kristinsson)
09/01/06-08/31/09

Function, characterization and stability of antioxidative hydrolysates and peptides made from proteins isolated from fish processing byproducts.

Sharper Contract - Eufortyn Study (Leeuwenburgh)
11/15/2007-11/14/2009

This pilot study is designed to provide the primary data and information on anti-aging aspects of Eufortyn (creating; Q10) on biochemical and physiological parameters of aging and will be a valuable scientific support for future study plans in which we will choose additional formulations and measurements.

U01-AG022376
NIH/NIA (Pahor)
9/1/2009-8/31/2014
\$10,900,044

Physical Exercise to Prevent Disability - LIFE Study
The primary aim is to assess the long-term effects of the proposed interventions on the primary outcome of major mobility disability as operationalized by the inability to walk 400m. Biomarkers and Metabolism Core will support the blood draw and future repository.

NIH/NIA (Pahor/Manini)
7/1/2008-6/30/2010
Pepper Center Supplement - Molecular mechanisms of skeletal muscle loss in HIV-infected older persons

This supplemental study to the Developmental Project within the Claude Pepper Older American Center will investigate the effects of HIV and anti-retroviral agents on muscle mass and function in older patients.

NIH/NIA (Cummings)
 Study of Energy and Aging (SEA)
 \$261,197
 9/30/2009-9/29/2011

SEA will impact health care by guiding clinicians to the evaluation of potentially treatable causes of mobility disability and fatigue. Ultimately, this work may identify new modifiable targets for interventions to improve mobility and alleviate fatigue in older adults.

Osato Research Institute (Anton)
 1/1/2010 - 12/31/2010
 \$112,000

Efficacy of fermented papaya preparation (FPP) in improving health and physical function in older adults with mild functional limitations

This pilot study will evaluate the effects of supplementation with FPP (dosage = 9 grams per day) for one month on markers of systemic inflammation, physical performance, tissue oxygenation, fatigue, and health related quality of life, in generally healthy, older adults (age \geq 65 years) with elevated levels of systemic inflammation (C-reactive protein levels \geq 1.0) and moderate functional limitations (Short Physical Performance Battery Score \leq 10).

American Heart Association (Anton)
 7/1/09 - 6/30/11
 \$110,000

Dose Response Effects of Weight Loss on Systemic and Vascular Inflammation

The proposed study will utilize the infrastructure of an existing large-scale NIH funded study to evaluate 1) the effects of three doses of lifestyle weight management on changes in markers of inflammation and oxidative stress in healthy, community dwelling, obese rural adults (N=272) over six months, and 2) the association between changes in biomarkers of inflammation and oxidative stress with changes in physical function and traditional CVD risk factors.

Urine and blood samples will be analyzed in the Biomarkers and Genomics Core of the Pepper Center (Leader, C. Leuvenburgh).

Nestle Purina Pet Care Global Resources, Inc.
 3/15/2009-3/15/2011

DNA/RNA oxidation analysis in blood, urine and tissue

Brooks Rehabilitation Research Endowment (Chmielewski)
 4/01/07-2/28/2010
 \$40,000

Brooks Healthcare System

Urinary Levels of a Knee Osteoarthritis Biomarker in the Early Period after ACL Reconstruction

The goals of this project are to determine if 1) urinary levels of a knee osteoarthritis biomarker are elevated after ACL reconstruction, and 2) levels of the biomarker are related to self-report of knee function. Urine samples will be processed and analyzed in the Biomarkers and Genomics Core of the Pepper Center (Leader, C. Leuvenburgh).

NFL Charities (Chmielewski)
 7/1/2007-6/30/2010
 \$125,000

The Effect of Plyometric Exercise Intensity on Function & Articular Cartilage Metabolism after ACL Reconstruction

The goal of this study is to compare the effect of low and high-intensity plyometric exercise on self-report of function and articular cartilage biomarkers in patients with ACL reconstruction.

Urine and blood samples will be analyzed in the Biomarkers and Genomics Core of the Pepper Center (Leader, C. Leuvenburgh).

Joint Cancer Centers Opportunity Fund (Manini)
 05/01/09 - 04/31/10

Christiaan Leuvenburgh, PhD 1/13/10

UF/Moffitt cancer centers \$93,744
Chemotherapy-induced muscle weakness, fatigue & functional limitation in older breast cancer survivors
The major goal of this project is to determine the feasibility of and explore mechanisms causing long-term muscle weakness and poor quality of life in breast cancer survivors undergoing chemotherapy treatment.
Role: Dual-Principal Investigator (Co-PI: Martine Extermann, MD). Urine and blood samples will be analyzed in the Biomarkers and Genomics Core of the Pepper Center, (\$14,736) (Leader, C. Leuvenburgh)

Merck & Co, Inc (Buford) 2010-2011
Role of skeletal muscle blood flow and regeneration in sarcopenia \$60,000
Investigate the role of skeletal muscle angiogenesis and perfusion on inflammation, extracellular matrix remodeling and satellite cell number in young and old persons. Urine, blood samples and muscle biopsies will be analyzed in the Biomarkers and Genomics Core of the Pepper Center (Leader, C. Leuvenburgh).

1R01-AG024526 NIH/NIA (Carter) 8/1/2005-7/31/2010 Co-I
ACE Inhibition and Physical Performance in Aged Rats
The goal is to assess the effects of inhibition on the rennin-angiotensin system on physical performance, body composition and biological parameters in aged rats. A translational supplement has also been awarded for this grant. Samples will be analyzed in the Biomarkers and Genomics Core of the Pepper Center, (Leader, C. Leuvenburgh)

1P30-AG028740-S2 10/1/2009-9/31/2011 \$150,000
Mitochondrial function and fatigue in the elderly
This pilot study will supplement the current OAlC and is geared toward studying fatigue in the elderly and whether mitochondrial dysfunction contributes to the prevalence of fatigue in the elderly.

PENDING

CTSI (Martin/Leuvenburgh) 11/16/2009-11/15/2011 \$86,138
Diaphragm Mitochondrial Dysfunction During Prolonged Mechanical Ventilation.
This pilot study will provide clinically relevant information on the underlying causes for human diaphragm dysfunction after prolonged mechanical ventilation and potential interventions to preserve diaphragm function.

CTSI (Fillingim) 11/16/2009-11/15/2011 \$77,876
Effects of OA-Related Pain on Telomere Length and Telomerase Activity
The goal is to identify biological markers reflecting the deleterious consequences of chronic pain among older adults has the potential to inform future treatment efforts to mitigate the effects of pain in this population.

OVERLAP
None

CURRENT FELLOWSHIP AND TRAINING GRANTS

1K23AT004251 NIH/NCCAM (Anton; Leuvenburgh Co-Primary mentor) 12/1/08 - 11/30/13
Investigations of Botanicals on Food Intake, Satiety, and Weight Loss

The proposed line of research will explore the role that botanical compounds have in affecting food intake, gastrointestinal signals, satiety, and weight loss. The central hypothesis is that botanical compounds will reduce food intake in humans by stimulating neuroendocrine pathways related to satiety. Urine, blood samples and muscle biopsies will be analyzed in the Biomarkers and Genomics Core of the Pepper Center (Leader, C. Leeuwenburgh).

AHA 2060112 Fellowship to Jinze Xu

07/01/2009-06/30/2011
\$100,040

Cardiac mitochondrial iron transport and accumulation and the effects on bioenergetics with age

2007-2012

\$1,181,591

T32 AG000196-16 (Meyer)
Training in the Neurobiology of Aging
This proposal outlines a comprehensive interdisciplinary program leading to specialized research, education and training in the neurobiology of aging.

2008-2013

T32 HD043730 NIH (Krista Vandenberg)

Training in Rehabilitation and Neuromuscular Plasticity

This training program in rehabilitation and neuromuscular plasticity will provide the interdisciplinary environment that is fundamental to the advancement of rehabilitation research and will prepare trainees for translation research in neuromuscular plasticity.

1K01HD052713 (Chmielewski; Leeuwenburgh Co-Primary Mentor) 9/30/07-8/31/12

\$487,907

National Institutes of Health
Muscle Weakness and Post-traumatic Knee OA

The goal of this Mentored Research Scientist Development award is to gain skills in conducting clinical trials, assessing articular cartilage morphology with magnetic resonance imaging (MRI), and performing biochemical analysis of articular cartilage and inflammatory markers. Urine and blood samples will be analyzed in the Biomarkers and Genomics Core of the Pepper Center (Leader, C. Leeuwenburgh).

CTSI INFO To be completed

FUNDED INTERNALLY

Age-related responses to acute blood flow restricted exercise (Manini)
Urine, blood samples or muscle biopsies will be analyzed in the Biomarkers and Genomics Core of the Pepper Center (Leader, C. Leeuwenburgh).

Institute on Aging (Anton)
7/1/2008-6/30/2010

Dose-response effects of weight loss on oxidative stress and inflammation

The study will utilize a large sample of obese, older adults (N = 100) from rural communities to examine: 1) the dose-response relation between weight loss programs of varying intensity on changes in markers of systemic inflammation (i.e., CRP, IL-6, and TNF-alpha), oxidative stress levels (i.e., oxLDL, myeloperoxidase), and vascular inflammation (E-selectin, VCAM-1) over six months, and 2) whether weight loss versus changes in physical activity are related to improvements in biomarkers of inflammation and oxidative stress, as well as physical function.

Urine, blood samples or muscle biopsies will be analyzed in the Biomarkers and Genomics Core of the Pepper Center (Leader, C. Leeuwenburgh).

The Evelyn F. and William L. McKnight Brain Institute (Manini & Anton) 02/01/2008-01/31/2009
\$100,000

Resveratrol supplementation to improve memory dysfunction in older adults. This is a Phase I double-blind placebo controlled trial to determine whether three months of daily resveratrol supplementation after cognitive performance among non-impaired older adults. We will also explore whether oxidative stress and inflammatory pathways, commonly upregulated in older adults, are altered with resveratrol supplementation. Urine, blood samples or muscle biopsies will be analyzed in the Biomarkers and Genomics Core of the Pepper Center (Leader, C. Leuvenburgh).

RGP Opportunity Fund (M. Perri) (Leuvenburgh Co-1) 5/1/07-4/30/08 \$81,876
Biological Effects of Weight Loss Plus Exercise in Obese Older African-American Women

PREVIOUS GRANTS

Direct and indirect cost

RO1 AG 21042-3 (Leuvenburgh) 8/01/2003-7/31/2009

National Institutes of Health/National Institute on Aging
Apoptosis and life-long caloric restriction
The goal is to determine the signaling transduction pathways of apoptosis with age and the effects of life-prolonging interventions.

AHA Fellowship to Arnold Seo 0615256B (Leuvenburgh) 07/01/2006-06/30/2008

Cardiac mitochondrial biogenesis and macro-autophagy
This study will provide us with a better understanding of the basic biology of mitochondrial biogenesis and turnover and will help us to develop targeted therapeutic interventions aimed at treating heart diseases resulting from an accumulation of dysfunctional mitochondria.

The National Institute on Aging: (Aspirin proposal, Leuvenburgh) 2005-2008

Intervention testing program for compounds to test their ability to extend mean and/or maximum life-span. The major goals of these studies are to investigate short-term and long-term aspirin intervention to prevent inflammation, oxidative stress, disease and to prolong life in rodents. Funding for study provided by the NIA.

LifeGen Technologies 12/01/06-11/5/4/2009 PI \$44,394 0

This research project is designed to measure oxidative stress with 8-OH-Dg (DNA) and 8-OH-G (RNA) levels in canines and mice.

RGP Opportunity Fund (M. Perri) 5/1/06-4/30/07 Co-1 \$81,876 0

Biological Effects of Weight Loss Plus Exercise in Obese Older African-American Women

AHA: Fellowship to Tim Hofer 0525346B (Leuvenburgh) 7/01/05-6/30/2007 \$96,476

Oxidative RNA and DNA damage to heart mitochondrial sub-populations with age and life-long caloric restriction. To determine the role of RNA and DNA damage in heart mitochondrial sub-populations with age.

James and Esther King Program (Segal/Johnson) 7/1/05 - 6/30/07 PI (project 4) 1.2 \$73,179

FL Department of Health
James and Esther King Program

Smoking as a novel risk factor for progression of renal disease
This study will elucidate the mechanisms of renal disease due to smoking.

2R01 AG1794-6 NIH (Leeuwenburgh)
NIH/NIH

08/01/00-7/31/06
\$200,000

Molecular Mechanisms of Oxidative Stress in Aging Muscle
The major goals for this project are to study mitochondrial function, energy production and oxidative stress with age in cardiac and skeletal muscle.

7/1/04-6/30/06
\$40,000

AHA Fellowship to Asimina Hiona
The use of p66Shc knockout mice to investigate the mechanisms responsible for cardiomyocyte apoptosis with age. P66Shc is a protein which regulates mitochondrial oxidative stress and its role in aging is investigated.

American Heart Association (Florida)

6/1/2000-5/31/2003
\$225,000

Scientist Development Grant AHA 0030334B (Leeuwenburgh)
Doxorubicin-induced oxidative stress and apoptosis in cardiac myocytes: The role of the mitochondria.
Goals: The major goal of this project is to determine by what in vivo mechanisms doxorubicin effect myocyte apoptosis.

Galleo-IRB 658-2000 (Leeuwenburgh)

2001-2002
\$123,750

A Single Center Double Blind Placebo Controlled Study of Nutritional Ingredient Systems in Post-Exercise Muscle Injury to Assess Symptomatic Response and Surrogate Markers of Oxidative Stress and Inflammation
Goals: The major goals for this project are to determine 1) if nutritional supplements attenuate inflammation, cell damage, and oxidative stress in healthy human subjects 2) safety of supplements.

8/01/1999-7/31/2004
\$5,217,615

NIA, AG 10485 (Meyer)
Program Project Grant National Institute of Health
Discovery of novel drugs for Alzheimer's disease.
Co-Investigator Neurochemistry Core (Leeuwenburgh)

Goal: The major goal for this project is to discover novel drugs and drug mechanisms that are of potential efficacy in the treatment of the neurodegeneration associated with Alzheimer's disease.

Society of Geriatric Cardiology, Merck Geriatric Cardiology Research Award (Leeuwenburgh) 1999-2000
Myocardial Aging: Mitochondrial Control of Apoptosis?
Cause for Ventricular Dysfunction and Failure in the Old Heart? \$10,000

Florida Department of Health: Biomedical Research Program (Powers) 2001-2003
Exercise and myocardial protection against I-R injury
\$355,525

Goal: To determine the mechanisms of exercise-induced cardiac protection.

RO1 HL62361 (Powers)

NIH-National Heart, Lung and Blood Institute
2/1/2001-1/31/2005
\$1,268,750

Mechanical ventilation and respiratory muscles
Goal: The major goal for this project is to discover the mechanisms of respiratory fatigue in the diaphragm during mechanical ventilation.

RO1 HL607855 (Powers) Leeuwenburgh (Co-Investigator) 2003-2006
NIH - National Heart, Lung and Blood Institute
\$1,310,990

To determine if the exercise-induced protection against I-R-induced calpain activation and oxidative injury is dependent upon an increase in myocardial MnSOD activity and GSH levels and to ascertain if the exercise-induced increase in both myocardial MnSOD activity and myocardial GSH levels are essential for protection against I-R-induced myocardial infarction.

American Heart Association-Florida affiliate (Powers)

1998-2001

Protective strategies against myocardial ischemia-reperfusion injury \$109,388 Washington University School of Medicine

NIH-NIA, 1 P60 AG 1362901 Claude Pepper OAIC (Hollloszy) 1995-2000 \$4,097,399 Pilot Project Principal Investigator (Leeuwenburgh)

0415187B; American Heart Association (Fellowship for Young Mok Jang) 2004-2006 \$40,000

Sarcoplasmic Reticulum Mediated Apoptosis in Cardiotoxicity induced by Doxorubicin in vitro and in vivo

0225194B; American Heart Association (Fellowship for Barry Drew) 2002-2004 \$72,000 Doxorubicin-induced damage to cardiac mitochondrial enzymes

Goal: Attenuating doxorubicin-induced damage to cardiac mitochondrial enzymes.

0215053B; American Heart Association (Fellowship for Sharon Phaneuf) 2002-2004 \$38,000 Lifelong, voluntary exercise as a strategy to prevent mitochondrial-mediated cardiomyocyte

apoptosis with age.

Goal: Attenuating apoptosis in the heart with life-long moderate exercise training.

National Institute of Aging: National Research Service Award (NRSA) (Leeuwenburgh) 1997-1998 NIA, NRSA; 1F32AG05780-01, Molecular Mechanism of Oxidative Stress in Aging \$25,420/yr

University of Illinois

Pre-Doctoral Fellowship AHA SS-08, American Heart Association, Illinois Affiliate 1993-1995 Myocardial Ischemia-Reperfusion Injury in vivo (Leeuwenburgh) \$24,000

Administrative Departmental Duties 2009-2010:

Core Leader of the Pepper Center Genomics, Metabolism and Biomarkers Core 2006-current

Chief, Division of Biology of Aging, Department of Aging and Geriatric Research

Advisory board of The Interdisciplinary Program (IDP) in Biomedical Sciences at the University of Florida, College of Medicine Graduate IDP program

Institute on Aging Executive Board meetings

Seminar director (UF-VA Aging Rehabilitation Seminar Series and Department of Aging And Geriatrics Seminar series)

Search Committee member for the Chief of Endocrinology and Diabetes

Chair of Search Committee Chief of Division of Clinical Research

Chair of Search Committee Assistant Professor Clinical Division.

Chair of the Search Committee for the Clinical Assistant Professor Clinical Division.

Chair of the Search Committee for Assistant Professor, Department of Anatomy and Cell Biology

Scientific Board

Methuselah Prize Scientific Advisory Board (MPSAB)
American Aging Association (AGE)

Editorial board
Journal of Experimental Gerontology 2005-current
Journal of the American Aging Association 2004-2006

Editor Roles
Editor Journal of Experimental Gerontology 2008-current (Musculoskeletal Systems and Exercise, Section Editor)
Guest Editor Antioxidant and Redox Signaling (2005-2006) (Aging)

Journal Referee
Biochemistry

Journal of Biological Chemistry
Journal of Clinical Investigation
Archives of Biochemistry and Biophysics
Biochimica et Biophysica Acta
Journal of Nutritional Biochemistry
The International Journal of Biochemistry & Cell Biology

Free Radical Biology
Free Radical Biology and Medicine
Free Radical Research

Aging, Disease and Life Sciences
Science
PNAS Proceeding of The National Academy of Sciences

FASEB Journal
FEB Letters

Journal of Gerontology
Experimental Gerontology
Mechanisms of Aging and Development

Oncogene
Life Sciences

Physiology and Applied Physiology

Journal of Applied Physiology
American Journal of Physiology
American Journal of Physiology Cell Physiology
American Journal of Physiology Endocrinology and Metabolism
American Journal of Physiology Heart and Circulatory Physiology
American Journal of Physiology Regulatory, Integrative and Comparative Physiology
Acta Physiologica Scandinavica
Canadian Journal of Applied Physiology
European Journal of Applied Physiology
Medicine and Science in Sports and Exercise
Physiology and Behavior
High Altitude Medicine and Biology
International Journal of Sports Medicine
European Respiratory Journal

Refereed Publications: 1-122

1. Someya S, Xu J, Kondo K, Ding D, Salvi RJ, Yamasoba T, Rabinovitch PS, Weindruch R, Leuvenburgh C, Tanokura M, Prolla TA. Age-related hearing loss in C57BL/6J mice is mediated by Bak-dependent mitochondrial apoptosis. *Proc Natl Acad Sci U S A*. 2009.

2. Rangaraju S, Hankins D, Madorsky I, Madorsky E, Lee WH, Carter CS, Leuuenburgh C, Notterpek L. Molecular architecture of myelinated peripheral nerves is supported by calorie restriction with aging. *Aging Cell*. 2009;8:178-91.
3. Bailey LJ, Cluett TJ, Reyes A, Prolia TA, Poulton J, Leuuenburgh C, Holt IJ. Mice expressing an error-prone DNA polymerase in mitochondria display elevated replication pausing and chromosomal breakage at fragile sites of mitochondrial DNA. *Nucleic Acids Res*. 2009;37:2327-35.
4. Wohlgemuth SE, Seo AY, Marzetti E, Lees HA, Leuuenburgh C. Skeletal muscle autophagy and apoptosis during aging: effects of calorie restriction and life-long exercise. *Exp Gerontol*. 2009.
5. Carter CS, Leuuenburgh C, Daniels M, Foster TC. Influence of Calorie Restriction on Measures of Age-Related Cognitive Decline: Role of Increased Physical Activity. *J Gerontol A Biol Sci Med Sci*. 2009.
6. Chung HY, Cesari M, Anton S, Marzetti E, Giovannini S, Seo AY, Carter C, Yu BP, Leuuenburgh C. Molecular inflammation: underpinnings of aging and age-related diseases. *Ageing Res Rev*. 2009;8:18-30.
7. Cui L, Hofer T, Rani A, Leuuenburgh C, Foster TC. Comparison of lifelong and late life exercise on oxidative stress in the cerebellum. *Neurobiol Aging*. 2009;30:903-9.
8. Hofer T, Servais S, Seo AY, Marzetti E, Hiona A, Upadhyay SJ, Wohlgemuth SE, Leuuenburgh C. Bioenergetics and permeability transition pore opening in heart subsarcolemmal and interfilillar mitochondria: effects of aging and lifelong calorie restriction. *Mech Ageing Dev*. 2009;130:297-307.
9. Hong SE, Heo HS, Kim DH, Kim MS, Kim CH, Lee J, Yoo MA, Yu BP, Leuuenburgh C, Chung HY. Revealing system-level correlations between aging and calorie restriction using a mouse transcriptome. *Age (Dordr)*. 2009.
10. Joyner-Matos J, Predmore BL, Stein JR, Leuuenburgh C, Julian D. Hydrogen Sulfide Induces Oxidative Damage to RNA and DNA in a Sulfide-Tolerant Marine Invertebrate. *Physiol Biochem Zool*. 2009.
11. Kim JY, Kim DH, Choi J, Park JK, Jeong KS, Leuuenburgh C, Yu BP, Chung HY. Changes in lipid distribution during aging and its modulation by calorie restriction. *Age (Dordr)*. 2009;31:127-42.
12. Marzetti E, Hwang JC, Lees HA, Wohlgemuth SE, Dupont-Versteegden EE, Carter CS, Bernabei R, Leuuenburgh C. Mitochondrial death effectors: Relevance to sarcopenia and disuse muscle atrophy. *Biochim Biophys Acta*. 2009.
13. Marzetti E, Carter CS, Wohlgemuth SE, Lees HA, Giovannini S, Anderson B, Quinn LS, Leuuenburgh C. Changes in IL-15 expression and death-receptor apoptotic signaling in rat gastrocnemius muscle with aging and life-long calorie restriction. *Mech Ageing Dev*. 2009;130:272-80.
14. Marzetti E, Anne Lees H, Eva Wohlgemuth S, Leuuenburgh C. Sarcopenia of aging: underlying cellular mechanisms and protection by calorie restriction. *Biofactors*. 2009;35:28-35.
15. Barger JL, Kayo T, Vann JM, Arias EB, Wang J, Hacker TA, Wang Y, Raederstorff D, Morrow JD, Leuuenburgh C, Allison DB, Saupé KW, Cartee GD, Weindruch R, Prolia TA. A low dose of dietary resveratrol partially mimics calorie restriction and retards aging parameters in mice. *PLoS One*. 2008;3:e2264.
16. Barger JL, Kayo T, Vann JM, Arias EB, Wang J, Hacker TA, Wang Y, Raederstorff D, Morrow JD, Leuuenburgh C, Allison DB, Saupé KW, Cartee GD, Weindruch R, Prolia TA. Erratum. *PLoS ONE*. 2008;3.
17. Chung JH, Seo AY, Chung SW, Kim MK, Leuuenburgh C, Yu BP, Chung HY. Molecular mechanism of PPAR in the regulation of age-related inflammation. *Ageing Res Rev*. 2008;7:126-36.
18. Dirks Naylor AJ, Leuuenburgh C. Sarcopenia: the role of apoptosis and modulation by caloric restriction. *Exerc Sport Sci Rev*. 2008;36:19-24.
19. Giovannini S, Marzetti E, Borst SE, Leuuenburgh C. Modulation of GH/IGF-1 axis: potential strategies to counteract sarcopenia in older adults. *Mech Ageing Dev*. 2008;129:593-601.
20. Hiona A, Leuuenburgh C. The role of mitochondrial DNA mutations in aging and sarcopenia: implications for the mitochondrial vicious cycle theory of aging. *Exp Gerontol*. 2008;43:24-33.

21. Hofer T, Fontana L, Anton SD, Weiss EP, Villareal D, Malayappan B, Leeuwenburgh C. Long-term effects of caloric restriction or exercise on DNA and RNA oxidation levels in white blood cells and urine in humans. *Rejuvenation Res.* 2008;11:793-9.
22. Hofer T, Marzetti E, Xu J, Seo AY, Gulec S, Knutson MD, Leeuwenburgh C, Dupont-Versteegden EE. Increased iron content and RNA oxidative damage in skeletal muscle with aging and disuse atrophy. *Exp Gerontol.* 2008;43:563-70.
23. Kim JH, Kwak HB, Leeuwenburgh C, Lawler JM. Lifelong exercise and mild (8%) caloric restriction attenuate age-induced alterations in plantaris muscle morphology, oxidative stress and IGF-1 in the Fischer-344 rat. *Exp Gerontol.* 2008;43:317-29.
24. Knutson MD, Leeuwenburgh C. Resveratrol and novel potent activators of SIRT1: effects on aging and age-related diseases. *Nutr Rev.* 2008;66:591-6.
25. Lezza AM, Fallacara FP, Pesce V, Leeuwenburgh C, Cantatore P, Gadaleta MN. Localization of abasic sites and single-strand breaks in mitochondrial DNA from brain of aged rat, treated or not with caloric restriction diet. *Neurochem Res.* 2008;33:2609-14.
26. Marzetti E, Wohlgemuth SE, Lees HA, Chung HY, Giovannini S, Leeuwenburgh C. Age-related activation of mitochondrial caspase-independent apoptotic signaling in rat gastrocnemius muscle. *Mech Ageing Dev.* 2008;129:542-9.
27. Marzetti E, Lawler JM, Hiona A, Manini T, Seo AY, Leeuwenburgh C. Modulation of age-induced apoptotic signaling and cellular remodeling by exercise and caloric restriction in skeletal muscle. *Free Radic Biol Med.* 2008;44:160-8.
28. Marzetti E, Groban L, Wohlgemuth SE, Lees HA, Lin M, Jobe H, Giovannini S, Leeuwenburgh C. Effects of short-term GH supplementation and treadmill exercise training on physical performance and skeletal muscle apoptosis in old rats. *Am J Physiol Regul Integr Comp Physiol.* 2008;294:R558-67.
29. Raghavan S, Kristinsson HG, Leeuwenburgh C. Radical scavenging and reducing ability of tilapia (*Oreochromis niloticus*) protein hydrolysates. *J Agric Food Chem.* 2008;56:10359-67.
30. Seo AY, Xu J, Servais S, Hofer T, Marzetti E, Wohlgemuth SE, Knutson MD, Chung HY, Leeuwenburgh C. Mitochondrial iron accumulation with age and functional consequences. *Ageing Cell.* 2008;7:706-16.
31. Strong R, Miller RA, Astle CM, Floyd RA, Flurkey K, Hensley KL, Javors MA, Leeuwenburgh C, Nelson JF, Ongini E. Nordihydroguaiaric acid and aspirin increase lifespan of genetically heterogeneous male mice. *Ageing Cell.* 2008;7:641-50.
32. Xu J, Knutson MD, Carter CS, Leeuwenburgh C. Iron accumulation with age, oxidative stress and functional decline. *PLoS One.* 2008;3:e2865.
33. Borst SE, Conover CF, Carter CS, Gregory CM, Marzetti E, Leeuwenburgh C, Vandenberg K, Wronski TJ. Anabolic effects of testosterone are preserved during inhibition of 5alpha-reductase. *Am J Physiol Endocrinol Metab.* 2007;293:E507-14.
34. Carter CS, Hofer T, Seo AY, Leeuwenburgh C. Molecular mechanisms of life- and health-span extension: role of caloric restriction and exercise intervention. *Appl Physiol Nutr Metab.* 2007;32:954-66.
35. Erdos B, Broxson CS, Landa T, Scarpace PJ, Leeuwenburgh C, Zhang Y, Turner N. Effects of life-long caloric restriction and voluntary exercise on age-related changes in levels of catecholamine biosynthetic enzymes and angiotensin II receptors in the rat adrenal medulla and hypothalamus. *Exp Gerontol.* 2007;42:745-52.
36. Judge S, Leeuwenburgh C. Cardiac mitochondrial bioenergetics, oxidative stress, and aging. *Am J Physiol Cell Physiol.* 2007;292:C1983-92.
37. Malayappan B, Garrett TJ, Segal M, Leeuwenburgh C. Urinary analysis of 8-oxoguanine, 8-oxoguanosine, fapy-guanine and 8-oxo-2'-deoxyguanosine by high-performance liquid chromatography-electrospray tandem mass spectrometry as a measure of oxidative stress. *J Chromatogr A.* 2007;1167:54-62.

38. Miller RA, Harrison DE, Astie CM, Floyd RA, Flurkey K, Hensley KL, Javors MA, Leeuwenburgh C, Nelson JF, Ongini E, Nadon NL, Warner HR, Strong R. An Aging Interventions Testing Program: study design and interim report. *Aging Cell*. 2007;6:565-75.
39. Sanz A, Hiona A, Kujath GC, Seo AY, Hofer T, Kouwenhoven E, Kalani R, Prolla TA, Barja G, Leeuwenburgh C. Evaluation of sex differences on mitochondrial bioenergetics and apoptosis in mice. *Exp Gerontol*. 2007;42:173-82.
40. Wohlgemuth SE, Julian D, Akin DE, Fried J, Toscano K, Leeuwenburgh C, Dunn WA, Jr. Autophagy in the heart and liver during normal aging and calorie restriction. *Rejuvenation Res*. 2007;10:281-92.
41. Cassano P, Sciancalepore AG, Lezza AM, Leeuwenburgh C, Cantatore P, Gadalata MN. Tissue-specific effect of age and calorie restriction diet on mitochondrial DNA content. *Rejuvenation Res*. 2006;9:211-4.
42. Cesari M, Leeuwenburgh C, Lauretani F, Onder G, Bandinelli S, Maraldi C, Guralnik JM, Pahor M, Ferrucci L. Frailty syndrome and skeletal muscle: results from the Invecchiare in Chianti study. *Am J Clin Nutr*. 2006;83:1142-8.
43. Cesari M, Kritchevsky SB, Leeuwenburgh C, Pahor M. Oxidative damage and platelet activation as new predictors of mobility disability and mortality in elders. *Antioxid Redox Signal*. 2006;8:609-19.
44. Derusseau KC, Kavazis AN, Judge S, Murtasiz Z, Deering MA, Quindry JC, Lee Y, Falk DJ, Leeuwenburgh C, Powers SK. Moderate calorie restriction increases diaphragmatic antioxidant enzyme mRNA, but not when combined with lifelong exercise. *Antioxid Redox Signal*. 2006;8:539-47.
45. Dicks AJ, Hofer T, Marzetti E, Pahor M, Leeuwenburgh C. Mitochondrial DNA mutations, energy metabolism and apoptosis in aging muscle. *Ageing Res Rev*. 2006;5:179-95.
46. Dicks AJ, Leeuwenburgh C. Tumor necrosis factor alpha signaling in skeletal muscle: effects of age and calorie restriction. *J Nutr Biochem*. 2006;17:501-8.
47. Dicks AJ, Leeuwenburgh C. Calorie restriction in humans: potential pitfalls and health concerns. *Mech Ageing Dev*. 2006;127:1-7.
48. Hatao H, Oh-ishi S, Itoh M, Leeuwenburgh C, Ohno H, Okawara T, Kishi K, Yagyu H, Nakamura H, Matsuo T. Effects of acute exercise on lung antioxidant enzymes in young and old rats. *Mech Ageing Dev*. 2006;127:384-90.
49. Hofer T, Seo AY, Prudencio M, Leeuwenburgh C. A method to determine RNA and DNA oxidation simultaneously by HPLC-ECD: greater RNA than DNA oxidation in rat liver after doxorubicin administration. *Biol Chem*. 2006;387:103-11.
50. Kalani R, Judge S, Carter C, Pahor M, Leeuwenburgh C. Effects of calorie restriction and exercise on age-related, chronic inflammation assessed by C-reactive protein and interleukin-6. *J Gerontol A Biol Sci Med Sci*. 2006;61:211-7.
51. Kujath GC, Leeuwenburgh C, Prolla TA. Mitochondrial DNA mutations and apoptosis in mammalian aging. *Cancer Res*. 2006;66:7386-9.
52. Leeuwenburgh C, Prolla TA. Genetics, redox signaling, oxidative stress, and apoptosis in mammalian aging. *Antioxid Redox Signal*. 2006;8:503-5.
53. Maraldi C, Volpato S, Kritchevsky SB, Cesari M, Andresen E, Leeuwenburgh C, Harris TB, Newman AB, Kanaya A, Johnson KC, Rodondi N, Pahor M. Impact of inflammation on the relationship among alcohol consumption, mortality, and cardiac events: the health, aging, and body composition study. *Arch Intern Med*. 2006;166:1490-7.
54. Marzetti E, Leeuwenburgh C. Skeletal muscle apoptosis, sarcopenia and frailty at old age. *Exp Gerontol*. 2006;41:1234-8.
55. Obisesan TO, Leeuwenburgh C, Ferrell RE, Phares DA, McKenzie JA, Prior SJ, Hagberg JM. C-reactive protein genotype affects exercise training-induced changes in insulin sensitivity. *Metabolism*. 2006;55:453-60.
56. Seo AY, Hofer T, Sung B, Judge S, Chung HY, Leeuwenburgh C. Hepatic oxidative stress during aging: effects of 8% long-term calorie restriction and lifelong exercise. *Antioxid Redox Signal*. 2006;8:529-38.
57. Dicks AJ, Leeuwenburgh C. The role of apoptosis in age-related skeletal muscle atrophy. *Sports Med*. 2005;35:473-83.

58. Hiona A, Leeuwenburgh C. WITHDRAWN: Life-long caloric restriction counteracts apoptotic effects of aging in the brain and bolsters the action of apoptosis inhibitors. *Neurobiol Aging*. 2005.
59. Judge S, Jang YM, Smith A, Selman C, Phillips T, Speakman JR, Hagen T, Leeuwenburgh C. Exercise by lifelong voluntary wheel running reduces subsarcolemmal and interfibillar mitochondrial hydrogen peroxide production in the heart. *Am J Physiol Regul Integr Comp Physiol*. 2005;289:R1564-72.
60. Judge S, Jang YM, Smith A, Hagen T, Leeuwenburgh C. Age-associated increases in oxidative stress and antioxidant enzyme activities in cardiac interfibillar mitochondria: implications for the mitochondrial theory of aging. *Faseb J*. 2005;19:419-21.
61. Kakarla P, Vadluri G, Reddy KS, Leeuwenburgh C. Vulnerability of the mid aged rat myocardium to the age-induced oxidative stress: influence of exercise training on antioxidant defense system. *Free Radic Res*. 2005;39:1211-7.
62. Kujoth GC, Hiona A, Pugh TD, Someya S, Panzer K, Wohlgemuth SE, Hofer T, Seo AY, Sullivan R, Jobling WA, Morrow JD, Van Remmen H, Sedivy JM, Yamasoba T, Tanokura M, Weindruch R, Leeuwenburgh C, Prolla TA. Mitochondrial DNA mutations, oxidative stress, and apoptosis in mammalian aging. *Science*. 2005;309:481-4.
63. Leeuwenburgh C, Gurley CM, Strotman BA, Dupont-Versteegden EE. Age-related differences in apoptosis with disuse atrophy in soleus muscle. *Am J Physiol Regul Integr Comp Physiol*. 2005;288:R1288-96.
64. Phillips T, Leeuwenburgh C. Muscle fiber specific apoptosis and TNF-alpha signaling in sarcopenia are attenuated by life-long caloric restriction. *Faseb J*. 2005;19:668-70.
65. Selman C, Phillips T, Staib JL, Duncan JS, Leeuwenburgh C, Speakman JR. Energy expenditure of calorically restricted rats is higher than predicted from their altered body composition. *Mech Ageing Dev*. 2005;126:783-93.
66. Seisby JT, Judge AR, Yimlamai T, Leeuwenburgh C, Dodd SL. Life long caloric restriction increases heat shock proteins and proteasome activity in soleus muscles of Fisher 344 rats. *Exp Gerontol*. 2005;40:37-42.
67. Cassano P, Lezza AM, Leeuwenburgh C, Cantatore P, Gadaleta MN. Measurement of the 4,834-bp mitochondrial DNA deletion level in aging rat liver and brain subjected or not to caloric restriction diet. *Ann N Y Acad Sci*. 2004;1019:269-73.
68. Dirks AJ, Leeuwenburgh C. Aging and lifelong caloric restriction result in adaptations of skeletal muscle apoptosis repressor, apoptosis-inducing factor, X-linked inhibitor of apoptosis, caspase-3, and caspase-12. *Free Radic Biol Med*. 2004;36:27-39.
69. Drew B, Leeuwenburgh C. Ageing and subcellular distribution of mitochondria: role of mitochondrial DNA deletions and energy production. *Acta Physiol Scand*. 2004;182:333-41.
70. Gredilla R, Phaneruf S, Selman C, Kendalsh S, Leeuwenburgh C, Barja G. Short-term caloric restriction and sites of oxygen radical generation in kidney and skeletal muscle mitochondria. *Ann N Y Acad Sci*. 2004;1019:333-42.
71. Hiona A, Leeuwenburgh C. Effects of age and caloric restriction on brain neuronal cell death/survival. *Ann N Y Acad Sci*. 2004;1019:96-105.
72. Itoh M, Ohishi S, Hatao H, Leeuwenburgh C, Selman C, Ohno H, Kizaki T, Nakamura H, Matsuoka T. Effects of dietary calcium restriction and acute exercise on the antioxidant enzyme system and oxidative stress in rat diaphragm. *Am J Physiol Regul Integr Comp Physiol*. 2004;287:R33-8.
73. Jang YM, Kendalsh S, Drew B, Phillips T, Selman C, Julian D, Leeuwenburgh C. Doxorubicin treatment in vivo activates caspase-12 mediated cardiac apoptosis in both male and female rats. *FEBS Lett*. 2004;577:483-90.
74. Judge S, Judge A, Grune T, Leeuwenburgh C. Short-term CR decreases cardiac mitochondrial oxidant production but increases carbonyl content. *Am J Physiol Regul Integr Comp Physiol*. 2004;286:R254-9.
75. Julian D, Leeuwenburgh C. Linkage between insulin and the free radical theory of aging. *Am J Physiol Regul Integr Comp Physiol*. 2004;286:R20-1.
76. Obisesan TO, Leeuwenburgh C, Phillips T, Ferrell RE, Phares DA, Prior SJ, Hagberg JM. C-reactive protein genotypes affect baseline, but not exercise training-induced changes, in C-reactive protein levels. *Arterioscler Thromb Vasc Biol*. 2004;24:1874-9.

77. Phillips T, Leeuwenburgh C. Lifelong aspirin supplementation as a means to extending life span. *Rejuvenation Res.* 2004;7:243-51.
78. Drew B, Leeuwenburgh C. Method for measuring ATP production in isolated mitochondria: ATP production in brain and liver mitochondria of Fischer-344 rats with age and caloric restriction. *Am J Physiol Regul Integr Comp Physiol.* 2003;285:R1259-67.
79. Drew B, Phanef S, Dirks A, Selman C, Gredilla R, Lezza A, Barja G, Leeuwenburgh C. Effects of aging and caloric restriction on mitochondrial energy production in gastrocnemius muscle and heart. *Am J Physiol Regul Integr Comp Physiol.* 2003;284:R474-80.
80. Leeuwenburgh C. Role of apoptosis in sarcopenia. *J Gerontol A Biol Sci Med Sci.* 2003;58:999-1001.
81. Payne AM, Dodd SL, Leeuwenburgh C. Life-long caloric restriction in Fischer 344 rats attenuates age-related loss in skeletal muscle-specific force and reduces extracellular space. *J Appl Physiol.* 2003;95:2554-62.
82. Phillips T, Childs AC, Dreon DM, Phinney S, Leeuwenburgh C. A dietary supplement attenuates IL-6 and CRP after eccentric exercise in untrained males. *Med Sci Sports Exerc.* 2003;35:2032-7.
83. Selman C, Kendalish S, Gredilla R, Leeuwenburgh C. Increased hepatic apoptosis during short-term caloric restriction is not associated with an enhancement in caspase levels. *Exp Gerontol.* 2003;38:897-903.
84. Selman C, Gredilla R, Phanef S, Kendalish S, Barja G, Leeuwenburgh C. Short-term caloric restriction and regulatory proteins of apoptosis in heart, skeletal muscle and kidney of Fischer 344 rats. *Biogerontology.* 2003;4:141-7.
85. Selman C, Leeuwenburgh C. The role of I κ B and apoptosis during skeletal muscle remodeling. *Am J Physiol Regul Integr Comp Physiol.* 2003;284:R538-9.
86. Shelke RR, Leeuwenburgh C. Lifelong caloric restriction increases expression of apoptosis repressor with a caspase recruitment domain (AR κ) in the brain. *Faseb J.* 2003;17:494-6.
87. Childs AC, Phanef SL, Dirks AJ, Phillips T, Leeuwenburgh C. Doxorubicin treatment in vivo causes cytochrome C release and cardiomyocyte apoptosis, as well as increased mitochondrial efficiency, superoxide dismutase activity, and Bcl-2:Bax ratio. *Cancer Res.* 2002;62:4592-8.
88. Dirks A, Leeuwenburgh C. Apoptosis in skeletal muscle with aging. *Am J Physiol Regul Integr Comp Physiol.* 2002;282:R519-27.
89. Drew B, Leeuwenburgh C. Aging and the role of reactive nitrogen species. *Ann N Y Acad Sci.* 2002;959:66-81.
90. Green PS, Leeuwenburgh C. Mitochondrial dysfunction is an early indicator of doxorubicin-induced apoptosis. *Biochim Biophys Acta.* 2002;1588:94-101.
91. Phanef S, Leeuwenburgh C. Cytochrome c release from mitochondria in the aging heart: a possible mechanism for apoptosis with age. *Am J Physiol Regul Integr Comp Physiol.* 2002;282:R423-30.
92. Pollack M, Phanef S, Dirks A, Leeuwenburgh C. The role of apoptosis in the normal aging brain, skeletal muscle, and heart. *Ann N Y Acad Sci.* 2002;959:93-107.
93. Adams S, Green P, Claxton R, Simcox S, Williams MV, Walsh K, Leeuwenburgh C. Reactive carbonyl formation by oxidative and non-oxidative pathways. *Front Biosci.* 2001;6:A17-24.
94. Childs A, Jacobs C, Kaminski T, Halliwell B, Leeuwenburgh C. Supplementation with vitamin C and N-acetyl-cysteine increases oxidative stress in humans after an acute muscle injury induced by eccentric exercise. *Free Radic Biol Med.* 2001;31:745-53.
95. Leeuwenburgh C, Heinicke JW. Oxidative stress and antioxidants in exercise. *Curr Med Chem.* 2001;8:829-38.
96. Lechtweis S, Leeuwenburgh C, Bejma J, Ji LL. Aged rat hearts are not more susceptible to ischemia-reperfusion injury in vivo: role of glutathione. *Mech Ageing Dev.* 2001;122:503-18.
97. Pennathur S, Wagner JD, Leeuwenburgh C, Litwak KN, Heinicke JW. A hydroxyl radical-like species oxidizes cynomolgus monkey artery wall proteins in early diabetic vascular disease. *J Clin Invest.* 2001;107:853-60.
98. Phanef S, Leeuwenburgh C. Apoptosis and exercise. *Med Sci Sports Exerc.* 2001;33:393-6.
99. Pollack M, Leeuwenburgh C. Apoptosis and aging: role of the mitochondria. *J Gerontol A Biol Sci Med Sci.* 2001;56:B475-82.

100. Manary MJ, Leuvenburgh C, Heinecke JW. Increased oxidative stress in kwashiorkor. *J Pediatr*. 2000;137:421-4.
101. Goke N, Keaney JF, Jr., Frei B, Holbrook M, Olesiak M, Zachariah BJ, Leuvenburgh C, Heinecke JW, Vita JA. Long-term ascorbic acid administration reverses endothelial vasomotor dysfunction in patients with coronary artery disease. *Circulation*. 1999;99:3234-40.
102. Heinecke JW, Hsu FF, Crowley JR, Hazen SL, Leuvenburgh C, Mueller DM, Rasmussen JE, Turk J. Detecting oxidative modification of biomolecules with isotope dilution mass spectrometry: sensitive and quantitative assays for oxidized amino acids in proteins and tissues. *Methods Enzymol*. 1999;300:124-44.
103. Leuvenburgh C, Hansen PA, Holluszky JO, Heinecke JW. Hydroxyl radical generation during exercise increases mitochondrial protein oxidation and levels of urinary dityrosine. *Free Radic Biol Med*. 1999;27:186-92.
104. Leuvenburgh C, Hansen PA, Holluszky JO, Heinecke JW. Oxidized amino acids in the urine of aging rats: potential markers for assessing oxidative stress in vivo. *Am J Physiol*. 1999;276:R128-35.
105. Powers SK, Ji LL, Leuvenburgh C. Exercise training-induced alterations in skeletal muscle antioxidant capacity: a brief review. *Med Sci Sports Exerc*. 1999;31:987-97.
106. Crowley JR, Yarasheski K, Leuvenburgh C, Turk J, Heinecke JW. Isotope dilution mass spectrometric quantification of 3-nitrotyrosine in proteins and tissues is facilitated by reduction to 3-amino tyrosine. *Anal Biochem*. 1998;259:127-35.
107. Gore M, Fiebig R, Hollander J, Leuvenburgh C, Ohno H, Ji LL. Endurance training alters antioxidant enzyme gene expression in rat skeletal muscle. *Can J Physiol Pharmacol*. 1998;76:1139-45.
108. Ji LL, Leuvenburgh C, Leichtweis S, Gore M, Fiebig R, Hollander J, Beijma J. Oxidative stress and aging. Role of exercise and its influences on antioxidant systems. *Ann N Y Acad Sci*. 1998;854:102-17.
109. Leuvenburgh C, Ji LL. Glutathione and glutathione ethyl ester supplementation of mice alter glutathione homeostasis during exercise. *J Nutr*. 1998;128:2420-6.
110. Leuvenburgh C, Hansen P, Shaish A, Holluszky JO, Heinecke JW. Markers of protein oxidation by hydroxyl radical and reactive nitrogen species in tissues of aging rats. *Am J Physiol*. 1998;274:R453-61.
111. Leuvenburgh C, Wagner P, Holluszky JO, Sohal RS, Heinecke JW. Caloric restriction attenuates dityrosine cross-linking of cardiac and skeletal muscle proteins in aging mice. *Arch Biochem Biophys*. 1997;346:74-80.
112. Leuvenburgh C, Rasmussen JE, Hsu FF, Mueller DM, Pennathur S, Heinecke JW. Mass spectrometric quantification of markers for protein oxidation by tyrosyl radical, copper, and hydroxyl radical in low density lipoprotein isolated from human atherosclerotic plaques. *J Biol Chem*. 1997;272:3520-6.
113. Leuvenburgh C, Hardy MM, Hazen SL, Wagner P, Oh-ishi S, Steinbrecher UP, Heinecke JW. Reactive nitrogen intermediates promote low density lipoprotein oxidation in human atherosclerotic intima. *J Biol Chem*. 1997;272:1433-6.
114. Leuvenburgh C, Hollander J, Leichtweis S, Griffiths M, Gore M, Ji LL. Adaptations of glutathione antioxidant system to endurance training are tissue and muscle fiber specific. *Am J Physiol*. 1997;272:R363-9.
115. Leichtweis SB, Leuvenburgh C, Parmelee DJ, Fiebig R, Ji LL. Rigorous swim training impairs mitochondrial function in post-ischaemic rat heart. *Acta Physiol Scand*. 1997;160:139-48.
116. Tribble DL, Gong EL, Leuvenburgh C, Heinecke JW, Carlson EL, Verstuyft JG, Epstein CJ. Fatty streak formation in fat-fed mice expressing human copper-zinc superoxide dismutase. *Arterioscler Thromb Vasc Biol*. 1997;17:1734-40.
117. Fiebig R, Gore MT, Chandwandy R, Leuvenburgh C, Ji LL. Aging of myocardial antioxidant enzyme activity and glutathione content with aging and exercise training. *Age*. 1996;19:83-89.
118. Leuvenburgh C, Ji LL. Alteration of glutathione and antioxidant status with exercise in unfed and refed rats. *J Nutr*. 1996;126:1833-43.
119. Leuvenburgh C, Leichtweis S, Hollander J, Fiebig R, Gore M, Ji LL. Effect of acute exercise on glutathione deficient heart. *Mol Cell Biochem*. 1996;156:17-24.

120. Leitchweiss SB, Leeuwenburgh C, Chandwaney R, Parmelee DJ, Ji LL. Ischaemia-reperfusion induced alterations of mitochondrial function in hypertrophied rat heart. *Acta Physiol Scand*. 1996;156:51-60.
 121. Leeuwenburgh C, Ji LL. Glutathione depletion in rested and exercised mice: biochemical consequence and adaptation. *Arch Biochem Biophys*. 1995;316:941-9.
 122. Leeuwenburgh C, Fiebig R, Chandwaney R, Ji LL. Aging and exercise training in skeletal muscle: responses of glutathione and antioxidant enzyme systems. *Am J Physiol*. 1994;267:R439-45.

Books and Book Chapters:

1. Free Radicals in Biology and Medicine (2008). Editors Carlos Gutierrez Merino and Christiaan Leeuwenburgh, Publisher Research Signpost, ISBN 978-81-308-0267-1, 263 pages
 2. Redox Signaling and Regulation in Biology and Medicine (2009) Free Radicals in Mammalian Aging. Editor, Claus Jacob. Publisher, Wiley-VCH Verlag, p473-519.
 3. Dirks and Leeuwenburgh. Pharmacotherapy of Cachexia"; Apoptosis in skeletal muscle cachexia and aging. 2005, p49-69.
 4. Pollack, M and C. Leeuwenburgh. Molecular Mechanisms of Oxidative Stress and Aging: Free radicals, aging, antioxidants, and disease. Handbook of Oxidants and Antioxidants in Exercise. p 881-926, C.K. Sen, L. Packer and O. Hanninen, editors. Chapter 30: Elsevier Science, 1999.
 5. Ji, L. L. and C. Leeuwenburgh. Glutathione and Exercise. In Pharmacology in Exercise and Sports. p 97-124, (Ed. S. Somani) CRC Press, Boca Raton, Florida, 1996.
 6. Leeuwenburgh C, and L. L. Ji. The role of glutathione in preventing oxidative stress during exercise and training. In: Skeletal Muscle Research, pp 69-84. (eds. C.K. Sen & and M. Ataley). University Kuopio Proceedings, 1994.

LECTURES, SPEECHES OR POSTERS PRESENTED AT PROFESSIONAL CONFERENCES/MEETING:

Invited scientific presentation non-US sites:

2010 (June) The 1st International Congress on Controversies in Longevity, Health and Aging (COLONGY), Barcelona, Spain, June 24-27, 2010.
 2010 (March) First International Congress on Translational Research in Human Nutrition, Clermont-Ferrand (France) on March 19-20, 2010, "Protein-energy metabolism in aging and chronic diseases: Role of nutrition and physical activity."
 2009 (December) Italian Society of Gerontology and Geriatrics (SIGG) National Congress, 2-5 December 2009 (October) Congress "Genes, Drugs and Gender" organized by the Foundation Menarini, Sassari, Italy.
 2009 (June) FEDERA conference, Leiden, Netherlands (Invited Speaker; Seminar and Public Lecture)
 2009 (June) Mini-Symposium Exercise Therapy in Cancer Patients, Erasmus Medical Center Rotterdam, "Muscle weakness in Cancer patients, fact or fiction?"
 2009 (Apr) Nutrition, Oxygen Biology and Medicine symposium, Paris, France (Invited Speaker) Bispbjerg Symposium on Sports Medicine, Skeletal Muscle Atrophy, Copenhagen, Denmark (Invited Speaker)
 2008 (Nov) Italian Society of Gerontology and Geriatrics (SIGG), Florence, The International Society of Chinese Scholars for Exercise Physiology, Tianjin, China (Invited Speaker)
 2008 (Nov) Pusan University, College of Pharmacy, Invited Talk, Pusan, S. Korea
 2008 (June) 6th Northern Light Summer Conference, Canadian Federation of Biological Societies 52nd Scientific conference, Winnipeg, Manitoba, Canada (Invited Speaker)

- 2006 (Oct) Aging and Exercise in the 13th International Conference of Biochemistry of Exercise, Korean Society of Exercise Biochemistry and Exercise Physiology, "Effects of exercise on ageing muscle and other tissue functions and metabolism", Seoul, S. Korea (Invited Speaker)
- 2006 (Oct) The International Society of Chinese Scholars for Exercise Physiology, Tianjin, China (Invited Speaker)
- 2006 (July) European Bioenergetic Conference (EBEC), Moscow, Russia. (Invited Speaker)
- 2006 (July) European Sports Congress 2006 in Lausanne, Switzerland, "Exercise and Oxidative Stress" (Invited Speaker)
- 2006 DANONE ageing workshop, Paris, 4-5 May, 2006 (Invited Speaker and Consultant)
- 2005 (Dec) Mitochondria: from Molecular Insight to Physiology and Pathology. University of Bari, Bari, Italy, (Invited speaker).
- 2004 (July) 14th Qualitative and Quantitative Perspectives of Longevity, Kyungju, South Korea, Invited Speaker
- 2004 (July) European Cell Death Organization: Death on the Sea, Crete, Greece (Poster)
- 2004 (Sept) Gordon Conference, Biology of Aging, Aussois, France (Invited Speaker)
- 2004 (May) XII Meeting of the International Society for Free Radical Research, Buenos Aires, Argentina (Invited Speaker)
- 2003 (Nov) Free Radicals and Aging, McMaster University, Hamilton, Canada, (Invited Speaker)
- 2003 (Nov) Invited External Reviewer for PhD dissertation defense, Gianni Parise, McMaster University, Hamilton, Canada
- 2003 (Sept) Queens' College, Cambridge University, England, Association of Biomedical Gerontology 10th Congress (Invited Lecture)
- 2003 (Oct) Symposium of the German Society for Sports Medicine, Potsdam, Germany (Invited Lecture)
- 2003 (June) Oxidants and Antioxidants in Biology, Cadiz, Spain, (Invited Lecture)
- 2002 (July) 4th International Congress of Pathophysiology, Budapest, Hungary, (Invited Lecture)
- 2002 (Sept) 9th Biennial Meeting of the Society for Free Radical Research International, Paris, France
- 2002 (June) Erasmus University, Rotterdam, Netherlands (Invited Lecture)
- 2002 (May) University of Catania, Department of Pharmacology, Sicily, Italy (Invited Lectures)
- 2001 (June) University of Bologna, Department of Biochemistry, Italy (Invited Lecture)
- 2001 (June) University of Bari, Department of Biochemistry, Italy (Invited Seminar)
- 2001 (Oct) International Association of Biomedical Gerontology (9th), Vancouver, Canada (Invited Lecture-1)
- 2001 (Oct) International Association of Biomedical Gerontology (9th), Vancouver, Canada (Invited Lecture-2)
- 2001 (May) 2nd International Conference on Oxidative Stress and Aging, Maui, Hawaii, USA (Poster)
- 2000 (June) Universidad Complutense, Department of Biology, Madrid, Spain, (Invited Seminar)
- 1998 (Sept) International Society for Free Radical Research Sao Paulo, Brazil, 1998 (Poster)
- 1998 (Jan) The University of Stellenbosch Medical School, Stellenbosch, South Africa, (Workshop and Invited External Reviewer for Medical Students)
- 2010 Department of Pharmacology and Neuroscience, UNT HSC, Fort Worth
- 2009 Aging Muscle Symposium, San Francisco, CA (Invited Speaker)
- 2009 American Aging Association Conference, Scottsdale, AZ (Invited Speaker)
- 2009 ACSM Annual Conference, Seattle, WA (Invited Speaker)
- 2008 Understanding Aging Conference, Los Angeles, CA (Invited Speaker)
- 2008 10th Longevity Consortium Symposium, Boulder, CO (Invited Seminar)
- 2008 Linus Pauling Institute, Oregon State University, Corvallis (Invited Speaker)
- 2007 Cachexia Conference, Tampa FL Presentation title: Mitochondria and Muscle (Invited Speaker)
- 2007 Intl. College of Geriatric Psychopharmacology, San Diego, CA (Invited Speaker)
- 2007 GSA National Meeting, San Francisco, CA (Invited Speaker)
- 2007 ACSM, New Orleans, LA (Invited Speaker)

National or International seminars at US-sites:

2007	WORKSHOP NIA unexplained fatigue in the elderly, Bethesda, MD
2007	Nathan Shock Center Conference, Mayan Ranch, San Antonio, TX (Invited Speaker)
2007	Cachexia Conference, Tampa FL (Invited Speaker)
2007	University of Colorado (Invited Seminar)
2007	Longevity Consortium, Santa Fe, New Mexico (Invited Speaker)
2006	6 th Annual S. Mouchly Small Muscle Symposium, Amherst, MA (Invited Speaker)
2006	American Aging Association, Boston, Massachusetts (Invited Speaker)
2005	USC, Los Angeles, Distinguished Professor Lecture
2005	Free Radical Biology and Medicine, (Invited Speaker) (USA)
2005	Workshop NIA, Calorie Restriction (Invited Lecture), Baltimore, USA
2004	Gerontological Society of America (Invited Lecture)
2004	Baltimore; Nathan Shock Center Award Lecture at NIA; USA
2004	The Calorie Restriction Society, Charleston, SC (Invited Speaker)
2004	Gerontological Society of America, Washington DC, USA, (Invited Speaker)
2004	American Aging Association (AGE), Public Lecture, St. Petersburg, FL (Invited Speaker)
2004	Organizer and Lecturer, Pre-Symposium American Aging Association (AGE), St. Petersburg, FL
2004	University of Texas at San Antonio, TX (Invited Seminar)
2004	University of Colorado, Bolder, CO (Invited Lecture)
2003	Texas A & M, College Station, TX, (Invited Lecture)
2003	Grand Rounds, Why do we age? Vermont Medical School, Burlington, VT, (Invited Lecture)
2003	Vermont Medical School, Burlington, Vermont, (Invited Seminar Lecture)
2003	The Gerontological Research Center and San Antonio Nathan Shock Aging Center, San Antonio, TX
2003	Gerontological Society of America, San Diego, CA, (Invited Lecture)
2003	Diet and Optimum Health, Linus Pauling Institute, Oxygen Club California Portland (Invited Lecture)
2003	American College of Sports Medicine, San Francisco, (Mini-Symposium)
2002	Kronos, Sarcopenia and Aging, San Diego (Invited lecture)
2002	American College of Sports Medicine, Indianapolis (Mini-Symposium)
2001	American College of Sports Medicine, Baltimore, (Invited Lecture)
2000	Oxygen Society, San Diego, CA
2000	Society of Geriatric Cardiology, Anaheim, CA, (Invited Lecture)
1999	American College of Sports Medicine, Seattle, (Invited Lecture)
1998	American College of Sports Medicine, Orlando, (Poster)
1997	American Aging Association, Philadelphia, (Invited Lecture)
1997	Oxygen Society, San Francisco, (Selected Lecture Presentation)
1996	Oxygen Society, Miami, (Selected Lecture Presentation and Poster)
1996	American Heart Association 69th Scientific Session, New Orleans, (Selected Lecture Presentation 1)
1996	American Heart Association 69th Scientific Session, New Orleans, (Selected Lecture Presentation 2)
1996	Federation of the American Society for Experimental Biology, Washington D.C., (Selected Lecture Presentation)
1995	Federation of the American Society for Experimental Biological, Atlanta (Poster)
Regional:	
2009	Whitney Laboratory for Marine Bioscience, Marineland, FL (Invited Speaker)
2006	From Frail to Fit After Fifty, Dept. of Veterans Affairs, GRECC St. Petersburg, Florida (Invited Lecture)
2004	Tallahassee, Florida State University, Dept. of Nutrition, Food and Exercise Science and Program in Neuroscience, USA.
2002	Washington University, JOH Meeting, Dept. of Internal Medicine, St. Louis, MO, (Invited Seminar)
2000	Cardiopulmonary Rehabilitation Symposium: Status 2000, Orlando, FL, (Invited Lecture)
1999	Southeastern ACSM Regional Conference Meeting, Norfolk, VI, (Invited Lecture)

1999 Cardiopulmonary Rehabilitation Symposium: Status'99, Orlando, FL, (Invited Lecture)
 1995 Washington University, Department of Internal Medicine, St. Louis, MO, (Invited Seminar)

Local:

2009 University of Florida, Gainesville, FL, Animal Sciences, Invited Seminar speaker.
 2006 University of Florida, Gainesville, FL, Alumni Association Grand Guard Reunion presentation
 2006 University of Florida, Gainesville, FL, "IDH3931 Science for Life Seminar Series -
 Fall 2006 Schedule Howard Hughes MI Science For Life seminar course
 2006 University of Florida, Gainesville, FL, "Center for Neurobiology of Aging" seminar lecture.
 2006 University of Florida, Gainesville, FL, "Medical Residents: house staff noon conference lecture
 2006 University of Florida, Gainesville, FL, "Biology of Aging" IDP course, guest lecture.
 2006 University of Florida, Gainesville, FL, Guest lecture, Dietician Association
 2005 University of Florida, Gainesville, FL, Institute on Aging
 2005 University of Florida, Gainesville, FL, IDP Graduate Program Seminar Series
 2005 University of Florida, Gainesville, FL, College of Public Health and Health Professions
 2004 University of Florida, Gainesville, FL, College of Medicine, Hypertension Center
 2004 University of Florida, Gainesville, FL, College of Nursing
 2004 University of Florida, Gainesville, FL, Center for Gerontological Studies
 2003 University of Florida, Gainesville, FL, College of Health Professions
 2003 University of Florida, Gainesville, FL, College of Nursing
 2003 University of Florida, Gainesville, FL, College of Veterinary Medicine
 2003 Department of Food Science and Human Nutrition
 2003 University of Florida, Gainesville, FL, Grant Writing Workshop
 2003 University of Florida, Gainesville, FL, Free Radical Biology Meeting
 2003 University of Florida, Gainesville, FL, Anesthesiology Residents
 2003 University of Florida, Gainesville, FL, Gerontology Students
 2002 University of Florida, Gainesville, FL, Alumni Association (Graduation Series)
 2002 University of Florida, Gainesville, FL, Alumni Association (Back to School)
 2002 University of Florida, Gainesville, FL, Institute on Aging
 2001 University of Florida, Gainesville, FL, Center for Exercise Science
 2001 University of Florida, Gainesville, FL, Center for Gerontology and Institute on Aging
 2001 University of Florida, Gainesville, FL, Free Radical Meeting (Invited Lecture 1)
 2001 University of Florida, Gainesville, FL, Free Radical Meeting (Invited Lecture 2)
 2001 University of Florida, Gainesville, FL, VA Medical School
 2001 University of Florida, Gainesville, FL, Veterinarian Medicine
 2001 University of Florida, Gainesville, FL, Department of Nutrition
 2000 University of Florida, Gainesville, FL, Geriatric Research Educational Clinical Center
 1999 University of Florida, Gainesville, FL, Free Radical Meeting (Invited Lecture)
 1998 University of Florida, Gainesville, FL, Department of Pharmacetics and Pharmacodynamics
 1996 Washington University School of Medicine, St. Louis, MO, Mass Spectrometer Resource Center

References

Jay V. Heinecke, MD (Mentor at Washington University School of Medicine)
 Professor of Internal Medicine, Department of Medicine,
 Medicine/Metabolism, Box 326426
 University of Washington
 1959 NE Pacific Street, HSB BB512
 Seattle, WA 98195-6426
 Tel: (206) 543-3470
 FAX: (206) 685-3781
 E-Mail: heinecke@u.washington.edu

J W. Hollloszy, MD (Co-Mentor)
 Professor of Internal Medicine; Chief, Division of Geriatrics and Gerontology,
 and Director, Section of Applied Physiology

Washington University School of Medicine
4566 Scott Ave, Box 8113
St. Louis, MO 63110
Tel: 314-362-3506
FAX: 314-362-7657
E-Mail: JHOLLOSZ@imgate.wustl.edu

L I JI, PhD
Professor

University of Wisconsin
2000 Observatory Drive
Madison, WI 53706

Tel: 608-262-7250
Fax: 608-262-1656

E-mail: jli@mail.soemadison.wisc.edu

Stan Hazen, MD, PhD (Former Post Doctoral Fellow at Washington University School of Medicine)
Director, Center for Cardiovascular Diagnostics and Prevention

Cleveland Clinic Foundation
9500 Euclid Ave, NC-10

Cleveland, OH 44195

Tel: 216-445-9763

Fax: 216-444-9404

hazens@ccl.org

Subramaniam Pennathur, MD (Former Post Doctoral Fellow at Washington University School of Medicine)
Assistant Professor

University of Washington
Department of Medicine

Box 356426,

1959 NE Pacific

(314) 616-3543

spennathur@yahoo.com



CURRICULUM VITAE

NAME: Dennis A. Steindler

PLACE OF BIRTH: Milwaukee, Wisconsin

MARITAL STATUS: Married to Janice J.U. Steindler

CHILDREN: 1 son, Joshua N. Steindler

EDUCATION:

High School:

John Marshall High School, Milwaukee, WI

Undergraduate:

University of Wisconsin, Madison

B.A. 1973

Zoology

Graduate School:

University of Wisconsin, Madison

1973-1975

Neuroanatomy

University of California San Francisco

Ph.D. 1977

Anat./Neurobiology

Postdoctoral:

Max-Planck-Inst., Göttingen, Germany

1977-1978

Neurophysiology

UNIVERSITY APPOINTMENTS:

Res. Assistant - University of California, San Francisco - Mentor: Henry J. Kalston, III, M.D.

Assistant Professor - Michigan State University, Department of Anatomy, East Lansing, MI.

1978-1983

Assistant Professor - The University of Tennessee, Memphis, The Health Science Center,

Department of Anatomy, Memphis, TN. 1983-84

Associate Professor - The University of Tennessee, Memphis, The Health Science Center,

Department of Anatomy and Neurobiology; Center for Neuroscience - 1985-1991

Professor - The University of Tennessee, Memphis, The Health Science Center, Department

of Anatomy and Neurobiology; Center for Neuroscience - 1991-2001

Joseph J. Bagnor/Shands Professor of Medical Research, Professor in the Departments of

Neuroscience and Neurological Surgery, The McKnight Brain Institute, Program in Stem Cell

Biology and Regenerative Medicine, and Shands Cancer Center of the College of Medicine,

University of Florida - 2001 - present

present

Executive Director, The McKnight Brain Institute of the University of Florida, 12/04-

AWARDS, etc:

1973	B. A. with Honors and Distinction in Zoology, University of Wisconsin, Madison
1976	Dean's Award for Graduate Research, University of California, San Francisco
1977	Fellowship from the Max-Planck Society
1984	L. C. Noel Foundation Grant, The University of Tennessee, Memphis, The Health Science Center
1993	Golden Apple Award, First Year Medical Students Award for Neuroanatomy Teaching
1995	University of Tennessee Alumni Association Outstanding Teaching Award
1995	Sponsor and Graduate Student Advisor for L. B. Thomas, M.D., Selected as the Resident Research Award Winner, American Academy of Neurological Surgeons
1996	Golden Apple Award, First Year Medical Students Award for Neuroanatomy Teaching
1996	Awarded Fellowship from the Japan Society for the Promotion of Science
1997	Awarded Daimler-Benz Foundation Fellowship, Sponsor for Dr. Bjorn Scheffler
1998	Patent Technology Award, American Museum of Science and Energy
1999	Teaching Award for Medical School Neuroscience
1999	Member, Southeast United States Alzheimer's Disease Council
2000	Teaching Award for Medical School Neuroscience
2001	Outstanding Lecturer Award for Medical School Neuroscience
2003	Birch Lecturer, International Neuropsychology Society
2003	Nominated, Bristol-Myers Squibb Award for Neuroscience Research
2006	Gubernatorial Appointee, Gov. Jeb Bush, The Florida Center for Brain Tumor Research
2008	Athena Onlus Award, Rome, Italy, shared with Professors Gianfranco Rossi and Rita Levi Montalcini

SERVE AS REVIEWER/ADVISOR FOR:

- The Journal of Neuroscience (Associate Editor)
- Experimental Neurology (Editorial Board Member)
- Glia (Editorial Board Member)
- Brain Research (Editorial Board Member)
- Nature
- Nature Biotechnology
- Nature Medicine
- The Lancet
- Trends in Neurosciences
- Science
- The Journal of Comparative Neurology
- The Journal of Neuroscience Methods
- The Journal of Neuroscience Research
- Cerebral Cortex
- Developmental Biology
- Cancer Research
- Proceedings of the National Academy of Sciences (U.S.A.)

The National Science Foundation, BBS RTG Panel
 The Swiss National Science Foundation
 Neurology A Study Section, NIH/NINDS, 1985-1988
 Spinal Cord Injury Foundation, Paralyzed Veterans Association
 Veterans Association, Merit Grant Program
 Human Frontiers in Science Grant Program
 Israel National Science Foundation
 National Science Foundation, Develop. Neuroscience Panel, 1991-1994
 Neurology B2 Study Section, NIH/NINDS, 1993
 National Institutes of Aging, Minority Student Fellowship Program, 1995
 Neurological Sciences 2 Study Section, June, 1996
 Special Emphasis Panel, NIH/NINDS, 1999
 NIEHS, Special Emphasis Panel, Parkinson's Disease, 2000
 NIDA, Special Emphasis Panel, Gene Microarray Technology, 2000
 Special Emphasis Review Panel, NIH/NINDS, 2001
 Department of Genetics Review, St. Jude Children's Research Hospital
 The Michael J. Fox Foundation for Parkinson's Research
 Advised Gov. Jeb Bush, Florida Legislature on issues of stem cells/cloning
 Advised the European Union Commission and Parliament on Human Embryonic Stem Cells
 and Cloning
 NIH, BDCN-2/CNNT-01 Study Section, 6/01-6/05, Chairperson 10/02-06/05
 Scientific Advisory Board Member, Michael J. Fox Foundation for Parkinson's Research,
 01/05-present
 Global Ischemia Foundation - Scientific Advisory Board Member
 California Institute for Regenerative Medicine, Scientific and Medical Research Funding
 Working Group, 05/05-present
 Founder, "The Regeneration Project", 2007

PAPERS:

1. Steindler, D.A. and S.A. Colwell. Reeler mutant mouse: Maintenance of appropriate and reciprocal connections in the cerebral cortex and thalamus. *Brain Research* 113:386-393, 1976.
2. Welt, C. and D.A. Steindler. Somatosensory cortical barrels and thalamic barrel fields in reeler mutant mice. *Neuroscience* 2:755-766, 1977.
3. Steindler, D.A. Trigemino-cerebellar projections in normal and reeler mutant mice. *Neuroscience Letters* 6:293-300, 1977.
4. Steindler, D.A. and J.M. Deniau. Anatomical evidence for collateral branching of substantia nigra neurons: A combined horseradish peroxidase and (3H)-wheat germ agglutinin axonal transport study in the rat. *Brain Research* 196:228-236, 1980.
5. Steindler, D.A. Locus coeruleus neurons have axons that branch to the forebrain and cerebellum. *Brain Research* 223:367-373, 1981.
6. Steindler, D.A. Differences in the labeling of axons of passage by wheat germ agglutinin after uptake by cut peripheral nerve versus injections within the central nervous system. *Brain Research* 250:159-167, 1982.

7. Imai, H., D.A. Steindler, and S.T. Kitai. A rapid and simple method for determination of delivery after iontophoretic and pressure injections of radioactive tracer substances. *Journal of Neuroscience Methods* 7:389-396, 1983.
8. Steindler, D.A., L.G. Issacson, and B.K. Trosko. Combined immunocytochemistry and autoradiographic retrograde axonal tracing for identification of transmitters of projection neurons. *Journal of Neuroscience Methods* 9:217-228, 1983.
9. Steindler, D.A. and R.H. Bradley. N-[acetyl-³H] wheat germ agglutinin: anatomical and biochemical studies of a sensitive bidirectionally transported axonal tracer. *Neuroscience* 10:219-241, 1983.
10. Steindler, D.A. Trigeminothalamic, trigeminothalamic, and trigeminothalamic projections: A double retrograde axonal tracing study in the mouse. *Journal of Comparative Neurology* 237:155-175, 1985.
11. Cusick, C.G., D.A. Steindler, and J.H. Kass. Corticocortical and collateral thalamocortical projections of postcentral somatosensory cortical areas in squirrel monkeys: A double labeling study with radiolabeled wheat germ agglutinin and wheat germ agglutinin conjugated to horseradish peroxidase. *Somatosensory Research* 3:1-31, 1985.
12. Imai, H., D.A. Steindler and S. T. Kitai. The organization of divergent axonal projections from the midbrain raphe nuclei in the rat. *Journal of Comparative Neurology* 243:363-380, 1986.
13. Cooper, N.G.F. and D.A. Steindler. Lectins demarcate the barrel subfield in the somatosensory cortex of the early postnatal mouse. *Journal of Comparative Neurology* 249:157-168, 1986.
14. Steindler, D.A. and N.G.F. Cooper. Wheat germ agglutinin binding sites in the adult mouse cerebellum: Light and electron microscopic studies. *Journal of Comparative Neurology* 249:170-185, 1986.
15. Cooper, N.G.F. and D.A. Steindler. Monoclonal antibody to glial fibrillary acidic protein reveals a parcellation of individual barrels in the early postnatal mouse somatosensory cortex. *Brain Research* 380:341-348, 1986.
16. Imai, H., M.R. Park, D.A. Steindler and S. T. Kitai. The morphology and divergent axonal organization of midbrain raphe projection neurons in the rat. *Brain and Development* 8:343-354, 1986.
17. O'Brien, T.F. D.A. Steindler and N.G.F. Cooper. Abnormal glial and glycoconjugate dispositions in the somatosensory cortical barrel field of the early postnatal reeler mutant mouse. *Developmental Brain Research* 32:309-317, 1987.
18. Steindler, D.A. and N.G.F. Cooper. Glial and glycoconjugate boundaries during postnatal development of the central nervous system. *Developmental Brain Research* 36:27-38, 1987.
19. Steindler, D.A., O'Brien, T.F. and Cooper, N.G.F. Glycoconjugate boundaries during early postnatal development of the neostriatal mosaic. *Journal of Comparative Neurology* 267:357-369, 1988.

20. Steindler, D.A., N.G.F. Cooper, A. Faissner and M. Schachner. Boundaries defined by adhesion molecules during development of the cerebral cortex: The J1/tenascin glycoprotein in the mouse somatosensory cortical barrel field. *Developmental Biology* 131:243-260, 1989.
21. Steindler, D.A. and B.K. Trosko. Two types of locus coeruleus neurons born on different embryonic days in the mouse. *Anatomy and Embryology* 179:423-434, 1989.
22. Cooper, N.G.F. and D.A. Steindler. Critical period-dependent alterations of the transient body image in the rodent cerebral cortex. *Brain Research* 489:167-176, 1989.
23. Steindler, D.A., A. Faissner, and M. Schachner. Brain "cordons": transient boundaries of glia and adhesion molecules that define developing functional units. *Comments on Developmental Neurobiology* 1:29-60, 1989.
24. Snow, D.M., D.A. Steindler, and J. Silver. Molecular and cellular characterization of the glial roof plate of the spinal cord and optic tectum: A possible role for a proteoglycan in the development of an axon barrier. *Developmental Biology* 138:359-376, 1990.
25. Steindler, D.A., T.F. O'Brien, E. Laywell, K. Harrington, A. Faissner, and M. Schachner. Boundaries during normal and abnormal brain development: In vivo and in vitro studies of glia and glycoconjugates. *Experimental Neurology* 109:35-56, 1990.
26. Laywell, E.D. and D.A. Steindler. Boundaries and wounds, glia and glycoconjugates: Cellular and molecular analyses of developmental partitions and adult brain lesions. *Annals N. Y. Academy of Science* 633:122-141, 1991.
27. O'Brien, T.F., A. Faissner, M. Schachner, and D.A. Steindler. Affluent-boundary interactions in the developing neostriatal mosaic. *Developmental Brain Research* 65:259-267, 1992.
28. Laywell, E.D., U. Bartsch, U. Dorries, S. Bartsch, A. Faissner, M. Schachner, and D.A. Steindler. Enhanced expression of the developmentally regulated extracellular matrix molecule tenascin following adult brain injury. *Proceedings of the National Academy of Sciences USA* 89:2634-2638, 1992.
29. Steindler, D.A. Glial boundaries in the developing nervous system. *Annual Review of Neuroscience* 16:445-470, 1993.
30. Brodkey, J.A., M.A. Gates, E.D. Laywell, and D.A. Steindler. The complex nature of interactive neuroregeneration-related molecules. *Experimental Neurology* 123:251-270, 1993.
31. Gates, M.A., T.F. O'Brien, A. Faissner, and D.A. Steindler. Neuron-glia interactions during the in vivo and in vitro development of the nigrostriatal circuit. *Journal of Chemical Neuroanatomy* 6:179-189, 1993.
32. Steindler, D.A., A. Faissner, and K. Harrington. A unique mosaic in the visual cortex of the reeler mutant mouse. *Cerebral Cortex* 4:129-137, 1994.
33. Sajin, B. and D.A. Steindler. Cells on the edge: Boundary astrocytes and neurons. *Perspectives on Developmental Neurobiology* 2:275-289, 1994.

34. Brodkey, J.A., E.D. Laywell, T.F. O'Brien, A. Faissner, K. Stefansson, U. Dorries, M. Schachner, and D.A. Steindler. Focal brain injury and the upregulation of developmentally-regulated extracellular matrix protein. *Journal of Neurosurgery* 82:106-112, 1995.
35. Steindler, D.A., D. Settles, H. P. Erickson, E.D. Laywell, A. Yoshiki, A. Faissner, M. Kusakabe. Tenascin knockout mice: Barrels, boundary molecules, and glial scars. *Journal of Neuroscience* 15:1971-1983, 1995.
36. Faissner, A. and D.A. Steindler. Boundaries and inhibitory molecules in developing neural tissues. *Glia* 4:233-254, 1995.
37. Thomas, L.B. and D.A. Steindler. Glial boundaries and scars: Programs for normal development and wound healing in the brain. *The Neuroscientist* 1:142-154, 1995.
38. Thomas, L.B., D. Gates, T.F. O'Brien, J. Schweitzer, E. Richfield, and D.A. Steindler. DNA end labeling (TUNEL) in Huntington's disease and other neuropathological conditions. *Experimental Neurology* 133:265-272, 1995.
39. Gates, M.A., B. Thomas, E. Howard, E.D. Laywell, B. Sajin, A. Faissner, J. Silver and D.A. Steindler. A cell and molecular analysis of the developing and adult mouse subependymal zone of the cerebral hemispheres. *Journal of Comparative Neurology* 361:249-266, 1995.
40. Thomas, L.B., M.A. Gates, and D.A. Steindler. Young neurons from the adult mouse subependymal zone migrate and proliferate along an astrocyte, extracellular matrix-rich pathway. *GLIA* 17:1-14, 1996.
41. Laywell, E.D., P. Friedman, K. Harrington, J. T. Robertson and D.A. Steindler. Cell attachment to frozen sections of injured adult mouse brain: Effects of antibody and lectin perturbation of wound-related extracellular matrix molecules. *Journal of Neuroscience Methods* 66:99-108, 1996.
42. Gates, M.A., E.D. Laywell, H. Fillmore, and D.A. Steindler. Astrocytes and extracellular matrix in adult mice following intracerebral transplantation of embryonic ventral mesencephalon or lateral ganglionic eminence. *Neuroscience* 74:579-597, 1996.
43. Jhaveri, S., R. Erzurumlu, E.D. Laywell, D.A. Steindler, K.M. Albers, and B.M. Davis. Excess nerve growth factor in the periphery does not obscure development of whisker-related patterns in the rodent brain. *Journal of Comparative Neurology* 374:41-51, 1996.
44. Gates, M.A., H. Fillmore, and D.A. Steindler. Chondroitin sulfate proteoglycan and tenascin in the wounded adult mouse neostriatum in vitro: Dopamine neuron attachment and process outgrowth. *Journal of Neuroscience* 16:8005-8018, 1996.
45. Steindler, D.A., T. Kadrie, H. Fillmore, and L.B. Thomas. The Subependymal Zone of the Adult Brain: "Brain Marrow". *Prog. Brain Res.*, 108:349-363, 1996.
46. Settles, D.L., M. Kusakabe, D.A. Steindler, H. Fillmore, and H.P. Erickson. Tenascin-C knockout mouse has no detectable tenascin-C protein. *Journal of Neuroscience Research* 47:109-117, 1997.

47. Goldowitz, D., R. Cushing, E. Laywell, G. Darcangelo, M. Sheldon, H. Sweet, M. Davissan, D. Steindler, and T. Curran. Cerebellar disorganization characteristic of reeler in scrambler mutant mice despite presence of Reelin. *Journal of Neuroscience* 17:8767-8777, 1997.
48. Kukukov, V., E.D. Laywell, L.B. Thomas, and D.A. Steindler. A unique nestin-negative precursor cell from the adult mouse brain gives rise to neurons and glia. *GLIA* 21:399-407, 1997.
49. Steindler, D.A., Kukukov, V.G., Thomas, L.B., Fillmore, H., Suslov, O., Scheffler, B., O'Brien, T.F., Kusakabe, M., and E.D. Laywell. Boundary molecules during brain development, injury, and persistent neurogenesis - In vivo and in vitro studies. *Prog Brain Res*, 117:177-196, 1998.
50. Kukukov, V., E.D. Laywell, L.B. Thomas, B. Scheffler, K. Davies, T.F. O'Brien, M. Kusakabe, and D.A. Steindler. Multipotent stem/progenitor cells with similar properties arise from two neurogenic regions of adult human brain. *Experimental Neurology* 156:333-344, 1999.
51. Laywell, E.D., V.G. Kukukov, and D.A. Steindler. Multipotent neurospheres can be derived from forebrain subependymal zone and spinal cord of adult mice after protracted post-mortem intervals. *Experimental Neurology* 156:430-433, 1999.
52. Scheffler, B., M. Horn, I. Blumcke, E.D. Laywell, D. Coomes, V.G. Kukukov, and D.A. Steindler. Marrow-mindedness: a perspective on neurogenesis. *Trends in Neurosciences* 22:348-357, 1999.
53. Suslov, O.N., V.G. Kukukov, E.D. Laywell, B. Scheffler, and D.A. Steindler. RT - PCR Amplification of mRNA from single brain neurospheres. *Journal of Neuroscience Methods* 96:57-61, 2000.
54. Kusakabe, M., L. Mangiari, E.D. Laywell, G.P. Bates, and D.A. Steindler. Loss of cortical and thalamic neuronal tenascin-C expression in a transgenic mouse expressing exon 1 of the human Huntington disease gene. *Journal of Comparative Neurology* 430:485-500, 2001.
55. Laywell, E.D., P. Rakic, V.G. Kukukov, E. Holland, and D.A. Steindler. Identification of a multipotent astrocytic stem cell in the immature and adult mouse brain. *Proc. Natl. Acad. Sci. USA* 97:13883-13888, 2000.
56. Ignatova, T., V.G. Kukukov, E.D. Laywell, O.N. Suslov, F. Vtronis, and D.A. Steindler. Human cortical glial tumors contain stem-like cells expressing astroglial and neuronal markers in vitro. *GLIA* 39:193-206, 2002.
57. Suslov, O., V.G. Kukukov, T. Ignatova, and D.A. Steindler. Neural stem cell heterogeneity demonstrated by molecular phenotyping of clonal neurospheres in vitro. *Proc. Natl. Acad. Sci. USA* 99:1456-1451, 2002.
58. Zheng, T., D.A. Steindler and E.D. Laywell. Transplantation of an indigenous neural stem cell population leading to hyperplasia and atypical integration. *Cloning and Stem Cells* 4:3-8, 2002.
59. Steindler, D.A. and D. Pincus. Stem cells and neurogenesis in the adult human brain. *The Lancet* 359:1047-1054, 2002.

60. Steindler, D.A. Neural stem cells, scaffolds, and chaperones. *Nature Biotechnology* 20:1091-1093, 2002.
61. Laywell, E.D., Kukekov, V.G., Zheng, T., Suslov, O.N., and D.A. Steindler. Isolation and analysis of neurosphere forming cells from acutely dissociated and postmortem CNS specimens. *Methods in Molecular Biology* 198:15-27, 2002.
62. Laywell, E.D. and D.A. Steindler. Glial stem-like cells: Implications for ontogeny, phylogeny, and CNS regeneration. *Prog. Brain Res.* 138:435-450, 2002.
63. Kearns, S., Laywell, E.D., Kukekov, V.G. and D.A. Steindler. Extracellular matrix effects on neurosphere cell motility. *Experimental Neurology* 182:240-244, 2003.
64. Angelastro, J.M., Ignatova, T., Kukekov, V.G., Stengren, G., Steindler, D.A., Mendelsohn, C., and L.A. Greene. Regulated expression of ATF5 is required for the progression of progenitor cells to neurons. *J. Neuroscience* 23:4590-4600, 2003.
65. Deng, J., Laywell, E.D., Steindler, D.A., and Petersen, B.E. Neural trans-differentiation potential of hepatic oval cells in the neonatal mouse brain. *Experimental Neurology* 182:373-382, 2003.
66. Steindler D.A., Laywell E.D. Astrocytes as stem cells: Nomenclature, phenotype, and translation. *Glia* 43:62-9, 2003.
67. Mignone, J., Kukekov, V., Chiang, A-S, Steindler, D.A., and Enikolopov, G. Neural stem and progenitor cells in nestin-GFP transgenic mice. *Journal of Comparative Neurology* 469:311-324, 2004.
68. Cogle, C., Yachnis, A., Laywell, E.D., Zander, D.S., Wingard, J.R., Steindler, D.A.,* and E. W. Scott. Bone marrow transdifferentiation in the human brain following transplantation. *The Lancet* 363:1432-1437, 2004.
69. Tessitore, A., Martin, M. del P., Sano, R., Ma, Y., Mann, L., Ingrassia, A., Laywell, E.D., Steindler, D.A., Hendershot, L.M. and d'Azzo, A. Gm1 ganglioside-mediated activation of the unfolded protein response causes neuronal death in a neurodegenerative gangliosidosis. *Molecular Cell* 15:753-766, 2004.
70. Vig, J., Goldowitz, D., Steindler, D.A., and Eisenman, L.M., Compartmentation of the reeler cerebellum: segregation and overlap of spinocerebellar and secondary vestibulocerebellar fibers and their target cells. *Neuroscience* 130: 735-744, 2005.
71. Scheffler, B., Walton, N.M., Lin, D.D., Goetz, A.K., Enikolopov, G., Roper, S.N., and Steindler, D.A. Phenotypic and functional characterization of adult brain neurogenesis. *Proc Natl Acad Sci USA* 102:9353-9358, 2005.
72. Marshall, GP, Scott, EW, Zheng, T, Laywell, ED, and DA Steindler, Ionizing radiation enhances engraftment of transplanted in vitro derived neural stem cells. *Stem Cells* 23:1276-1285, 2005.

73. Laywell, E.D., Kearns, S.M., Zheng, T., Chen, K.A., Deng, J., Chen, H-X, Roper, S.N., and Steindler, D.A., Phenotypic fluidity: neuron-to-astrocyte transition through a hybrid "astcyte" phenotype in cultures of differentiating neurospheres. *J. Comp Neurol.* 493:321-333, 2005.
74. Gibbs, C.P., Kukikov, V.G., Reith, J.D., Tchigirnova, O., Suslov, O.N., Scott, E.W., Ghivizami, S.C., Ignatova, T.N., and Steindler, D.A. Stem-like cells in bone sarcomas: implications for tumorigenesis. *Neoplasia* 7:967-976, 2005.
75. Marshall, G.P., Laywell, E.D., Zheng, T., Steindler, D.A., and Scott, E.W. In vitro derived "neural stem" cells function as neural progenitors without the capacity for self-renewal. *Stem Cells* 24:731-738, 2006.
76. Suslov, O.N. and Steindler, D.A. PCR inhibition by reverse transcriptase contributes to an overestimation of amplification efficiency. *Nucleic Acids Research* 33:181, 2005.
77. Shepherd, T.M., Scheffler, B., King, M.A., Stanisz, G.J., Steindler, D.A., and Blackband, S.J. MRI microscopy of rat hippocampal slice cultures: a novel model for studying cellular processes and chronic perturbation to tissue microstructure. *NeuroImage* 30:780-786, 2006.
78. Goetz, A.K., Scheffler, B., Chen, H-X, Wang, S, Xiang, H., Brustle, O., Roper, S.N. and D.A. Steindler, Temporally restricted substrate interactions direct fate and specification of neural precursors derived from embryonic stem cells. *Proc Natl Acad Sci USA* 103:11063-11068, 2006.
79. Walton, N., Sutter, B., Chen, H-X, Scheffler, B., Chang, L-J., Roper, S., and D.A. Steindler. Derivation, large-scale expansion, and neurogenic potential of purified astroglial precursors from adult human brain. *Development* 133:3671-3681, 2006.
80. Deng, J., Petersen, B., Steindler, D.A., Jorgensen, M., and Laywell, E.D. Neural properties of adult mouse marrow-derived cells. *Stem Cells* 24:1054-1064, 2006.
81. Kearns, S.M., Scheffler, B., Goetz, A.K., Lin, D.D., Roper, S.N., Mandel, R.J., and Steindler, D.A. A method for a more complete in vitro Parkinson's model: slice culture bioassay for modeling maintenance and repair of the nigrostriatal circuit. *J Neurosci Meth.* 157:1-9, 2006.
82. Chen, K. A., Laywell, E.D., Marshall, G., Walton, N.M., Zheng, T., and Steindler, D.A. Fusion of neural stem cells in culture. *Exp Neurol.* 198:129-135, 2006.
83. Zheng, T., Marshall, G., Laywell, E.D., and Steindler, D.A. Neurogenic astrocytes transplanted to the adult mouse lateral ventricle contribute to olfactory neurogenesis, and reveal a novel intrinsic subependymal zone neuron. *Neuroscience* 142:175-185, 2006.
84. Steindler, D.A. Redefining cellular phenotypy based on embryonic, adult and cancer stem cell biology. *Brain Pathology* 16:169-180, 2006.
85. Walton, N., Sutter, B., Laywell, E., Levkoff, L., Kearns, S., Scheffler, B., Steindler, D.A. Microglia instruct subventricular zone neurogenesis. *GLIA* 54:18-25, 2006.

86. Zheng, T., Rossignol, C., Lebovici, A., Anderson, K.J., Steindler, D.A., Weiss, M.D. Transplantation of multipotent astrocytic stem cells into a rat model of neonatal hypoxic-ischemic encephalopathy. *Brain Research* 1112:99-195, 2006.
87. Laywell, E., Steindler, D.A., Silver, D.J. Astrocytic stem cells in the adult brain. *Neurosurgery Clinics of North America* 18:21-30, 2007.
88. Encinas, J., Vazquez, M.E., Switzer, R.C., Chamberland, D.W., Nick, H., Levine, H.G., Scarpa, P.J., Enkolopov, G., Steindler, D.A. Quiescent adult neural stem cells are exceptionally sensitive to cosmic radiation. *Exp Neurol* 210:274-279, 2008.
89. Steindler, D.A. Stem cells, regenerative medicine, and animal models of disease. *National Academy of Sciences ILAR J.* 48:323-338, 2007.
90. Marshall, G.P., Demir, M., Steindler, D.A., Laywell, E.D. Subventricular zone microglia possess a unique capacity for massive in vitro expansion. *Glia*. 56: 17099-808, 2008.
91. Wechsler, L., Steindler, D.A., Borlongan, C., Chopp, M., Savitz, S., Deans, R., Caplan, L., Hess, D., Mays, R.W. Stem cell therapies as an emerging paradigm in stroke (STEPS): Bridging basic and clinical science for cellular and neurogenic factor therapy in treating stroke. *Stroke* 40:510-5, 2009.
92. Marshall G.P., Ross H.H., Suslov O., Zheng T., Steindler D.A., Laywell E.D. Production of neurospheres from CNS tissue. *Methods Mol Biol.* 438:135-50, 2008.
93. Ross H.H., Levkoff L.H., Marshall G.P., Calera M., Steindler D.A., Reynolds B.A., Laywell E.D. Bromodeoxyuridine induces senescence in neural stem and progenitor cells. *Stem Cells* 26:3218-27, 2008.
94. Walton, N.M., Kobeissy, F., Scheffer, B., and Steindler, D.A. Gliotypic neural stem cells transiently adopt tumorigenic properties during normal differentiation. *Stem Cells* 27:280-9, 2009.
95. Silver D. and Steindler D.A. Common astrocytic programs during brain development, injury and cancer. *Trends in Neurosciences* 32:303-311, 2009.
96. Chen K.A., Lanuto, D., Zheng T., and Steindler D.A. Transplantation of embryonic and adult neural stem cells in the granular cerebellum of the weaver mutant mouse. *Stem Cells* 27:1625-1634, 2009.
97. Levings P.P., McGarry S.V., Currie T.P., Nickerson D.M., McClellan S., Ghivizzani S.C., Steindler D.A., and C.P. Gibbs. In vivo expression of a human Oct-4 promoter-driven reporter identifies tumor initiating cells in osteosarcoma. *Cancer Research* 69:5648-55, 2009.
98. Carpentino J., Hynes M.J., Appelman H.D., Zheng T., Steindler D.A., Scott E.W., Huang E.H. Aldehyde dehydrogenase expressing colon stem cells contribute to tumorigenesis in the transition from colitis to cancer. *Cancer Research* 69:8208-15, 2009.
99. Zheng, T., Marshall, G.P., Grant, S.C., Walter, G.A., Yang, H., Sharma, P., Bera, D., Cornell, H., Rossignol, C., Chen, K.A., Santra, C.S., Holloway, P.H., Moudgil, B.M.,

Scott, E.W., Laywell, E.D., McClellan, S., Leibovici, A., Steindler, D.A.,* and Weiss, M.D., Multimodal quantum dot-labeled neural stem cells transplanted and tracked in a neonatal rodent stroke model, *In Revision*.

100. Glas, M., Ley, B.H., Leinhaas, A., Eisenreich, R., Steinfarz, B., Pietsch, T., Steindler, D.A., Schramm, J., Simon, M., Herringer, U., Brustle, O., and Scheffler, B., Targeting relapse inducing glioblastoma cells, *Sub for Pub*.

101. Scheffler B, Wang S, Silver DJ, Zheng T, Liu J, Hillmer A, Reinartz R, Goetz AK, Czichon S, Glas M, Chesnut J, Rao M, Reynolds BA, Yachnis A, Pincus D, and DA Steindler. Unbiased segregation of human brain tumor-initiating cells and genes, *In Revision*.

102. Bae K.M., Wang, S, Frye C., Allan R.W., Woan K., Kuebler H., Rosser C., Wang S, Andrzejewski J.T., Kelley V., Jorgensen M., Siemann D.W., Steindler D.A., Vieweg J. and Zhen Su Z. Expression of pluripotent stem cell reprogramming factors by prostate tumor-initiating cells, *In Review*.

103. Chen K.A., Zheng T., Cruz P., Lanuto D., Srivastava A., Flotte T., Steindler D.A. Combined stem cell fusion and gene therapy for neurodegenerative disease, *In Revision*.

104. Scheffler B., Steindler D.A. and Okun M.S. Are most neurological diseases stem cell pathologies?, *In Revision*.

OTHER PUBLICATIONS:

Over 90 Abstracts

OTHER INVITED PAPERS, TRADE PUBLICATIONS, PATENTS, etc.:

Guest editor, *Experimental Neurology*, "Axonal boundaries and inhibitory mechanisms during neural development and regeneration." Vol. 109, July, 1990.

O'Brien, T.F., M.A. Gates, C.J. Wilson, and D.A. Steindler, "Glia and Glycoconjugates in the Neostriatum," in *Molecular and Cellular Mechanisms of Neostriatal Function*. (M.A. Ariano and D.J. Surmeier, Eds.), 1995, Springer-Verlag, pp. 21-34.

Steindler, D.A., Scheffler, B., Zheng, T., Laywell, E.D., Suslov, O.N., and V.G. Kukikov. Neural stem/progenitor cell clones or "neurospheres": a model for understanding neuroomorphogenesis. In, "Neural Stem Cells for Brain Repair", Humana Press, Zigoza, Snyder, and Sanberg, Eds, 2002.

Steindler, D.A. Retrograde axonal transport tracing using wheat germ agglutinin, (3H)-. *New Product News*, Vol. 1, #5, May, 1982, New England Nuclear Corp.

Guest Editor, Special Issue on "Glia as Stem Cells in Development and Adulthood", *GLIA* 43, July, 2003.

Chapter in a book, *Parkinson's Disease*, Ed. By Ebadi and Pfeiffer, "Translating Stem Cell Biology to Regenerative Medicine for Parkinson's Disease", CRC Press, Jan. 2005.

Patent Issued: "Isolated Mammalian Neural Stem Cells, Methods of Making Such Cells, and Methods of Using Such Cells."

Patent application: "Culturing and differentiating neural precursor cells"

Patent application: "A new method for RNA expansion from single cells"

Patent application: "Indefinite culture of human adult glia without immortalization and therapeutic uses thereof"

Patent application: "Identification of factors promoting neurogenesis"

Patent application: "Stem cell-like cells in bone sarcomas"

Patent application: "Isolation, expansion and uses of tumor stem cells"

Patent application: "Pluripotent stem cell transcription factor network in prostate tumor-initiating cells"

GenBank 6 ESTs entered from neural stem cells

Co-Founder, Program in Stem Cell Biology and Regenerative Medicine, University of Florida

Co-Founder, NeuroStem, Inc., and RegenMed, Inc.

Co-Founder, The Brain Marrow Project, Methodist Hospitals, Memphis

Founder, The Regeneration Project

RESEARCH AND OTHER EXTERNAL SUPPORT:

1973 Special Graduate Traineeship, Wisconsin Alumni Research Foundation.

1974-1975 National Institutes of Health Traineeship, University of Wisconsin.

1976 Awarded Regent's Fellowship, University of California, San Francisco.

1977 Postdoctoral Fellowship, Max-Planck Society.

1978-1982 Biomedical Research Support Grants from Michigan State University.

1989-1992 Principal Investigator, "CNS Pattern Formation Boundaries", NSF.

1981 - present Co-investigator on several grants, including shared instrumentation grants.

1991 NSF, Research Experience for Undergraduates Grant.

1991-1995	Hereditary Disease Foundation, "Neuropathology of Huntington's Disease";
1980-1995	Principal Investigator "Brainstem Projections to Cerebrum and Cerebellum", NIH/NINDS.
1993-1995	NSF, SGER grant, "CNS Pattern Formation Boundaries";
1995-1999	Principal Investigator, "Glia and Glycoconjugates in the Neostriatum", NIH/NINDS.
1996	Grant from the Japan Society for the Promotion of Science.
1999	"Sleep Regulation and Tumor Necrosis Factor", NIH
1998-2000	Co-Investigator, "Stem Cells in the Spinal Cord", Spinal Cord Injury Foundation, Paralyzed Veterans of America.
2002	Methodist LeBonheur Healthcare Foundation.
2000-2003	Co-Investigator (Daniel Goldowitz, P.I.), "Histological Phenotyping the Mouse Nervous System", NIMH.
1999-2003	Principal Investigator, "Studies of Adult Brain Neurogenesis, NIH/NINDS.
2002-2004	Co-Principal Investigator (with E.D. Laywell, PI), "Astrocytes as Multipotent Stem Cells", NIH/NINDS
2003	Training grants, University of Florida Program in Stem Cell Biology, Surgery, Allied Health
2003-2008	Principal Investigator, R01, "Studies of Adult Brain Neurogenesis", NIH/NINDS.
2003-2008	Principal Investigator, R01, "Altering Fate of Hematopoietic And Neural Stem Cells", NIH/NHLBI.
2004-2006	Co-Investigator (B. Scheffler, PI), R21, "Stem Cell Integration in the Injured Hippocampus", NIH/NINDS.
2003	Center for Excellence in Regenerative Health, University of Florida, Governor Jeb Bush and the State of Florida, \$10million and \$10 million state match.
2007-2012	Principal Investigator, R01, "Stem/Progenitor Cell Protection for Parkinson's Disease", NIH/NINDS.
2008	Co-Investigator, Hereditary Disease Foundation Grant (with Dr. F. Siebzehnrubl), "Stem/Progenitor Cell Migration and Differentiation in Huntington's Disease"
2009-2014	Co-Investigator, NIH/NCI (PI Dr. Brent Reynolds), "Targeting of Tumor Neural Stem Cells", Pending

1991	Meyer Horn, NSF sponsored, Research Experience For Undergraduate Awardee, Current, Resident in Medicine, and Dermatology, Northwestern University.
1991-1995	Monte Gates, Graduate Student, Postdoctoral Fellow, with Dr. Anders Bjorklund, University of Lund, Sweden; Research Assoc., Dept. of Neurology, Harvard University; Current - Faculty, Cardiff University.
1988-1993	Eric D. Laywell, Graduate Student, Current position, Asst. Professor, Dept. of Anatomy and Cell Biology, Univ Florida
1991	Nadia Mitrovic, current position, Postdoctoral Fellow, ETH Zurich.
1990	Diane Snow, current position, Assistant Professor, University of Kentucky.
1990-1991	Thomas F. O'Brien, M.D., Postdoctoral Fellow, current position Adjunct Assistant Professor, Department of Anatomy and Neurobiology and Center for Neuroscience, Memphis Tennessee.
1987	John B. Schweitzer, M.D., Assoc. Professor, Department of Pathology, University of Tennessee, Memphis, CIDA grant sponsor.
1981-1983	Hisamasa Imai, M.D., Postdoctoral Fellow, Michigan State University, Department of Anatomy; current position - Faculty of Medicine, Department of Neurology, Juntendo University School of Medicine, Tokyo 113, Japan.
1982-1983	Lori G. Isaacson, Graduate Student, Michigan State University.

STUDENTS AND POSTDOCTORAL FELLOWS:

2002-present	Fund-raising of over 18 million dollars for the McKnight Brain Institute and the University of Florida, from the State of Florida Legislature and Private Donors
2009-2011	Co-Investigator, NIH GO Grant (E. Scott, PI), "Validation of a Novel Genetic Model for Neural Regeneration"
2009-2011	Principal Investigator, NIH Challenge Grant, "IPS and Reprogrammed Adult Human Neural Progenitor Cells for Neurodegenerative Disease"; Pending, Priority Score 2%
2009-2012	Co-Investigator, NIH/NIA (PI Dr. Brent Reynolds), "Platform for Multi-Modal Cognitive Enhancement in the Elderly", Pending
2009-2014	Co-Investigator, NIH/NIA (PI Dr. Eric Laywell), "Altering Fate of Hematopoietic and Neural Stem Cells", Pending

1992	Sean Allen, Undergraduate Summer Student, Williams College.
1992	Jason Brodkey, M.D., Research Fellow of the Department of Neurosurgery, University Tennessee, Memphis. Current neurosurgeon, Ann Arbor, MI.
1992	Boris Sajin, M.D., Postdoctoral Fellow, Department of Anatomy, University of Zagreb, Croatia; Resident, Dept. of Neurology, Univ. of Iowa.
1993-1998	Brannon Thomas, M.D., Research Fellow of the Department of Neurosurgery, Graduate Student, Department of Anatomy and Neurobiology, UT Memphis; current, Ass't Professor, Department of Surgery, East Tennessee State University.
1993	Paul Friedman, Medical Student, Summer Research Fellow. Current, Resident, Washington Univ. St. Louis.
1994	David Childress, Medical Student, Summer Research Fellow.
1994	Helen Fillmore, Ph.D., Postdoctoral Fellow. Current, Assoc. Prof., Dept. of Neurosurgery, Medical College of Virginia.
1995	Tarek Kadrie, Medical Student, Summer Research Fellow.
1996 -	Valery Kukukov, Ph.D., Research Consultant, currently, Professor, Univ. of Tennessee
1997-	Oleg Suslov, Ph.D., Postdoctoral Fellow, currently, Research Associate, Univ. of Florida.
1997-1999, 2002-	Bjorn Scheffler, M.D., Visiting Scientist from the University of Bonn, currently, visiting Faculty, Univ. of Florida.
2001-present	Tong Zheng, Ph.D., Research Assistant Professor.
2002-2006	Sean Kearns, Graduate Student. Currently, Postdoctoral Fellow, University of Colorado.
2002-2007	Katrin Gotz, M.D. Postdoctoral Research Fellow.
2003-2007	Noah Walton, Graduate Student. Currently, Postdoctoral Fellow, Howard Hughes Medical Institute, University of Chicago.
2004-2008	Amy Chen, Graduate Student; to-be postdoc, Harvard Stem Cell Inst.
2005	Daniel Silver, Graduate Student
2007-present	Florian Siebzehnrubl, Postdoctoral Associate
1978-present	Member of over 35 thesis committees.

TEACHING EXPERIENCE:

- 1973-1974 Lectures on electron microscopic technique, Department of Methods in Physiological Psychology, Department of Psychology, University of Wisconsin, Madison.
- 1975 Neuroanatomy for Physical Therapy Students, Department of Anatomy, University of Wisconsin, Madison.
- 1976 Neuroanatomy for Pharmacy; Medical Students, Department of Anatomy, University of California, San Francisco.
- 1979 Neuroanatomy for Graduate Students (Course Director), Department of Anatomy, Michigan State University.
- 1979 Neuroanatomy for Medical Students, Department of Anatomy, Michigan State University.
- 1980-1983 Gross Anatomy for Medical Students, Department of Anatomy, Michigan State University.
- 1983-1986 Neuroscience for Medical Students, Department of Anatomy and Neurobiology, University of Tennessee, Memphis.
- 1984-1991 Neurobiology for Physical Therapy Students (Course Director), Department of Anatomy and Neurobiology, University of Tennessee, Memphis.
- 1985 Neuroanatomy for Dental Students.
- 1985-1989 Neuroembryology lectures for Neurology Residents, Department of Neurology, University of Tennessee, Memphis.
- 1986 Lectures in graduate course, "Techniques in Neuroscience", Department of Anatomy and Neurobiology, University of Tennessee, Memphis.
- 1987-1988 Lectures in neuroembryology, Medical Student embryology course, University of Tennessee, Memphis.
- 1991-present Medical Student and Graduate Student Neuroscience, University of Tennessee, Memphis; University of Florida.
- 2002-present Lectures on stem cell and cell biology in graduate courses in the Departments of Neuroscience, College of Medicine, Univ. of Florida; Interdisciplinary Graduate Program, Univ. of Florida; Program in

Stem Cell Biology and Regenerative Medicine; School of Journalism,
Univ. of Florida.

COMMITTEES AND OFFICES HELD:

Chair, Department of Anatomy Radiation and Biohazard Safety Committee, Michigan State University and University of Tennessee, Memphis, 1979-1985.
Graduate Affairs Committee, Department of Anatomy, Michigan State University, 1981-1982.

All-University Committee on Aging, Michigan State University, 1981-'83.
Chair, Departmental Seminar Committee, Anatomy Department, Michigan State University, 1979-1981.

Chair, Departmental Seminar Committee, Anatomy Department, University of Tennessee, Memphis, 1984.

Medical Student Advisor Program, University of Tennessee, Memphis, 1984-1985.
Departmental Advisory Committee, Department of Anatomy and Neurobiology, University of Tennessee, Memphis, 1984-1986, 1988-1991.

Graduate Affairs Committee, Department of Anatomy and Neurobiology, University of Tennessee, Memphis, 1987-1989.

Medical Scientist Training Program Committee, University of Tennessee, Memphis, 1984-2001.

Director, Memphis Chapter of the Society for Neuroscience, 1987-1988.
Chair, Recruitment Committee, Department of Anatomy and Neurobiology, University of Tennessee, Memphis, 1988-1989.

Promotion and Tenure Committee, Department of Anatomy and Neurobiology, University of Tennessee, Memphis, 1989-2001.

College of Medicine Research Committee, University of Tennessee, Memphis, 1994-2001.
Co-Chair, Univ. of Tennessee, College of Medicine Research Subcommittee on Fund-Raising, 1999.

Univ. of Tennessee, Dean's Departmental Review Committee, 1995.
Chair Search Committee, Univ. of Tennessee Department of Neurosurgery, 1995-1996.
University of Tennessee, Memphis All University Committee on Promotions and Tenure, 1999-2001.

Chair, All University Library Committee, UT Memphis, 1999 - 2001.

Director, Developmental Neurobiology Group, UT Memphis, 1987-2001.

- 1980 McGill University, Department of Physiology; University of Pennsylvania, Department of Anatomy; University of Pittsburgh, Department of Physiology; Agglutinin
- 1979 NASA Ames Research Center; University of California, San Francisco, Department of Anatomy, "Axonal Transport of Various Tracers Including Wheat Germ
- 1978 Howard University, Department of Anatomy, "Cerebral-Cerebellar Interrelations"
- 1977 National Aeronautics and Space Administration, The Jackson Memorial Laboratory, "Neuronal Specificity and the Nervous System of the Reeler Mutant Mouse"
- 1976 California Institute of Technology, "Neuronal Specificity and the Nervous System of the Reeler Mutant Mouse"

SELECTED INVITED LECTURES:

- STAIR Stroke Conference Co-Organizer, October, 2007
- External Reviewer, Children's Memorial Research Center, Northwestern University, 2007
- Fund Raising, University of Florida Foundation and Development Office, lectures throughout the state on issues of "Stem Cell Biology and Regenerative Medicine"
- American Association for Cancer Research, Director of the Cancer Stem Cell Program Reviewing Committee
- Consultant, External Advisory Committee, NCI, P01, Department of Developmental Neurobiology, St. Jude Children's Research Hospital, 2001-
- Grade School Science Fair Judge, Memphis, TN, 1992-2001.
- Consultant, The Brain Marrow Project, Methodist Hospitals Foundation, Memphis.
- Hereditary Disease Foundation, Neurobiology Collaborative Group, 1992-1994.
- Young Investigator Award Committee, Society for Neuroscience, 1990-1991

NATIONAL COMMITTEES, ORGANIZATIONS, OTHER:

- Press Release Reviewer, Society for Neuroscience, 2005-present
- LCME Review Committee, University of Florida, 2005
- Search Committee, University of Florida Director of the Office of Media Relations, 2004
- Alzheimer's Chair Search, Department of Neurology, University of Florida College of Medicine, 2003
- Chairman of Surgery Search Committee, University of Florida, College of Medicine, 2001-2002.

- Medical College of Wisconsin, Department of Anatomy, "Collateral Branching of Substantia Nigra Neurons"
- 1981 Vanderbilt University, Department of Psychology, "Organization of Divergent Axonal Projections from the Substantia Nigra and Locus Coeruleus"
- 1982 Parkinson's Disease Foundation, "Patterns of Divergence in Brainstem Axonal Projections"
- 1983 Northeastern Ohio University Colleges of Medicine, Department of Anatomy; Vanderbilt University, Department of Anatomy, "Development of Patterns of Divergence in Brainstem Axonal Projections"
- 1984 University of California, San Francisco, Department of Physiology; Vanderbilt University, Neurobiology Seminar Series, "Developmental and Regional Aspects of Lectin- and Toxin-Binding in the Nervous System"
- 1985 University of Wisconsin, Madison, Department of Anatomy; Medical College of Wisconsin, Cell and Molecular Biology Seminar Series, "Developmental and Regional Aspects of Lectin- and Toxin-Binding in the Nervous System"
- 1986 Medical College of Wisconsin, "Pattern Formation in the Central Nervous System"
- 1988 Yale University, Department of Human Genetics, and Section of Neuroanatomy; Rutgers University, Center for Molecular and Behavioral Neuroscience, "Boundaries Defined by Glia and Cell/Substrate Adhesion Molecules During Brain Development In vivo and In vitro"
- 1989 Massachusetts Institute of Technology, Department of Brain and Cognitive Sciences; Tufts University, Center for Neuroscience; E.K. Shriver Center; Case Western Reserve University, Center for Neuroscience; Bowman Gray School of Medicine, Department of Anatomy; Medical College of Pennsylvania, Department of Anatomy, "Brain 'Cordones': Glial and Glycoconjugate Boundaries that Define Developing Functional Units"
- 1989 Invited organizer, Special Topics Session, American Association of Anatomists, New Orleans, "Adhesion Molecules, Transient Boundaries, and Nervous System Pattern Formation"
- 1989 University of Heidelberg, Department of Neurobiology; Swiss Federal Institute of Technology, "Brain 'Cordones': Transient Boundaries of Glia and Adhesion Molecules that Define Developing Functional Units"
- 1989 Invited speaker in a Satellite Symposium on Cerebral Cortical "Barrels", Neuroscience Meeting, Phoenix, Arizona
- 1990 Invited speaker, symposium on Glial-Neuronal Interactions, Cambridge, England, sponsored by the New York Academy of Sciences and Cambridge University
- 1990 Oxford University, Department of Anatomy; College de France, Paris, Molecular Biology Group; University of Heidelberg, Department of Neurobiology; University of Arizona, Division of Neurobiology, "Boundaries and Wounds, Glia and Glycoconjugates"

- 1990 Invited guest, Social on "Are Your Growth Cones Inhibited? Will Wine and Cheese Help?" Society for Neuroscience Meeting, St. Louis
- 1991 Washington University, St. Louis, and St. Louis University, "The Functional Organization of the Glial Scar"
- 1991 Invited organizer, Social on "Developmental Neurobiology: Intrinsic and Extrinsic Determinants of Cerebral Cortex", Society for Neuroscience Meeting, New Orleans
- 1991 Carnegie Mellon University, Department of Biological Sciences, "Boundaries During Neural Pattern Formation and Injury"
- 1992 Invited speaker, symposium on "Development, Growth, and Senescence in the Chemical Senses", National Institutes of Health, National Institute on Deafness and Other Communicative Disorders
- 1992 Invited speaker, workshop on neural pattern formation, Winter Conference on Brain Research, Steamboat Springs, CO
- 1992 Invited speaker, Cajal Club, Forum on Developmental Biology, New York, New York, "Common Programs for Glia During Brain Pattern Formation and Injury"
- 1992 Southeast Neuroscience Symposium, invited speaker, Birmingham, Alabama
- 1992 Invited speaker, Symposium in honor of the 10 year anniversary of the Queen Sophia Award, Madrid, Spain
- 1992 Invited lecturer, Instituto Cajal, Madrid, Spain, "Astrocytes and Extracellular Matrix Molecules that Form Boundaries During Brain Development and Injury"
- 1992 Invited speaker, Department of Anatomy, Georgetown University, "Astrocytes and Extracellular Matrix Molecules that Form Boundaries During Brain Development and Injury"
- 1993 Invited speaker, Department of Cell Biology and Neuroanatomy, University of Minnesota, "A Role for Tenascin in Brain Wound Healing"
- 1994 Department of Cell Biology, Duke University Medical School, "Brain Boundaries and Scars: Programs for Normal Development and Wound Healing", Grand Rounds, Departments of Neurosurgery and Neurology, UT, Memphis, "Traumatic Injury and Neurodegenerative Disease: Cell-Molecular Changes and Interventions"
- 1995 St. Jude Children's Research Hospital, Department of Neuro-Oncology, "Astrocytes and Extracellular Matrix in Brain Development, Injury, and Neoplasia"
- 1995 University College, Cork, Ireland, Invited Speaker, Symposium on glial barriers
- 1995 Invited speaker, Distinguished Lecture Series, University of Arkansas Medical School and Center for Neuroscience, Little Rock, Arkansas, "Cell and Molecular Interactions Prevalent During Brain Development, Injury, and Neoplasia"
- 1996 JSFS Fellowship to Visit the Laboratory of Cell Biology, RIKEN, Ibaraki, Japan, Seminars, Human Frontiers Group, RIKEN, Waco, Japan, and the University of

Osaka, "Cell and Molecular Analysis of Brain Boundary Molecules In Vivo and In Vitro"

1996 Invited speaker, Department of Anatomy and Cell Biology, University of Michigan, "Astroglial Boundary Molecules In Vivo and In Vitro"

1997 Invited plenary speaker, Brain Research Association of Great Britain, Liverpool, "Brain Boundary Molecules and Cells, In Vivo and In Vitro." (British Broadcasting Company, "Science Today" interview)

1997 Invited speaker, Spring Meeting in Berlin, "Regulatory Mechanisms in Neural Plasticity", Georg-August University, Göttingen

1997 Invited speaker, Netherlands Institute for Brain Research International Neuroscience Summer School

1997 Invited speaker, George Washington University Medical Center, Department of Anatomy and Neurobiology, "Extracellular Matrix Molecules During Brain Development, Injury, and Persistent Neurogenesis"

1998 Brain Awareness Week Lecturer, Christian Brothers University, Memphis, Tennessee, "Brain Marrow"

1998 University of Rochester, Department of Neurology, "Extracellular Matrix Molecules During Brain Development, Injury and Persistent Neurogenesis"

1998 Susan B. Hellams Lecturer, The Medical College of Virginia, Richmond, "Extracellular Matrix Molecules During Brain Development, Injury and Persistent Neurogenesis"

1998 Promega Corporation, "Cell and Molecular Characterization of Brain Marrow"

1998 Children's Memorial Institute for Education and Research, Neurobiology Program, Northwestern University, "Cell and Molecular Characterization of Mouse and Human Brain Marrow"

1999 Emory University, Department of Physiology, "Cell and Molecular Characterization of Brain Marrow"

1999 CLONTECH Laboratories, Palo Alto, CA, "The Cell and Molecular Biology of Adult Neural Stem Cells"

1999 The Chicago Medical School, "Molecular and Cellular Characterization of Adult Brain Neurogenesis"

1999 The Cold Spring Harbor Laboratory, "Molecular and Cellular Characterization of Adult Brain Neurogenesis"

1999 Meeting on Ataxia Telangiectasia, The Banbury Center, "Stem Cells in the Adult Human Brain"

1999 University of Wisconsin, Madison, Waisman Center, "Molecular and Cellular Characterization of Adult Brain Neurogenesis"

- 2000 The University of South Florida, "Stem Cells in the Adult Human Brain: Molecular Cell Biology and Clinical Applications"
- 2000 The University of Florida, Gainesville, "Stem Cells in the Adult Human Brain: Molecular Cell Biology and Clinical Applications"
- 2000 Chicago Chapter Society for Neuroscience Symposium Speaker, "Stem Cells in the Adult Human Brain: Molecular Cell Biology and Clinical Applications"
- 2000 FEBS and EC course invited presenter, "Techniques for Gene Manipulation Targeting and Delivery in the Nervous System", Bristol, England
- 2000 International Society for Experimental Hematology, invited plenary speaker, "Brain Marrow Neurogenesis: Cell, Molecular and Transplant Studies of Adult Brain Neurogenesis"
- 2000 The University of New Mexico, "Stem Cells in the Adult Human Brain: Targets for Gene Discovery, Transplantation, and Transformation"
- 2000 Distinguished Lecture Series, UMDNJ Robert Wood Johnson Medical School, "Stem Cells in the Adult Human Brain: Targets for Gene Discovery, Transplantation, and Transformation"
- 2000 St. Jude Children's Research Hospital, "Stem Cells in the Adult Human Brain: Targets for Gene Discovery, Transplantation, and Transformation"
- 2000 Titan Pharmaceuticals, Somerville, New Jersey, "Stem Cells in the Adult Human Brain: Targets for Gene Discovery, Transplantation, and Transformation"
- 2001 The American Association for Cancer Research, New Orleans, LA., invited plenary symposium speaker, "Neural Stem Cells".
- 2001 The Society of Biological Psychiatry, New Orleans, invited symposium speaker, "Neuron Life and Death: Promises and Pitfalls "
- 2001 The Netherlands Institute for Brain Research, International Summer School, "Plasticity in the Adult Brain: From Genes to Neurotherapy", invited symposium speaker on adult neural stem cells.
- 2001 Stem Cell Symposium, Brain Research Interactive, Satellite to the Society for Neuroscience Meeting, San Diego, CA., "Multipotent Astrocytic Stem Cells in Normal, Postmortem, and Tumorigenic Brains"
- 2001 George Washington University, Washington D.C., "Stem Cells and Neurogenesis in the Adult Human Brain".
- 2001 Harvard University, Massachusetts General Hospital, "Stem Cells in the Adult Human Brain"
- 2001 Invited symposium speaker, American Society for Hematology, "Stem Cells and Neurogenesis"
- 2001 *Discovery Channel* documentary, "The Science of Death"

- 2002 AstraZeneca Scientific Advisory Board speaker, San Juan, Puerto Rico.
- 2002 National Institutes of Neurological Diseases and Stroke, Invited workshop participant on stem cell banking
- 2002 FASFB invited speaker, symposium, glial stem cells
- 2002 Invited speaker on stem cell and cloning policy, Chancellor and the Ministry of Science, Vienna, Austria
- 2002 Grand Rounds, Neurology, University of Tennessee, Memphis, "Translating Stem Cell Biology to Regenerative Medicine"
- 2002 University of Texas, San Antonio, Cajal Center Speaker, "Translating Stem Cell Biology to Regenerative Medicine"
- 2003 Keynote Speaker, International Neuropsychological Society, Hawaii
- 2003 Invited Speaker, Cajal Club Debate on Stem Cells, Society for Neuroscience Meeting, New Orleans
- 2003 Speaker, Parkinson's Day and Support Groups, Univ. Florida
- 2003 Invited Speaker, Ocala Grand Dames for Cancer Research
- 2003 Invited Speaker, Hospital for Special Surgery Symposium, New York, "Place of Adult Stem Cells in Orthopaedics"
- 2003 Ocala Shakers, South Marion County Parkinson's Support Group, "Translating Stem Cell Biology to New Therapeutics for Parkinson's Disease"
- 2004 University of Miami, "Translating Stem Cell Biology and Regenerative Medicine to New Therapeutics for Parkinson's Disease
- 2004 Keynote Speaker, Society for Neuroscience Chapter, Chicago
- 2004 Invited Speaker, UCLA Brain Repair Series
- 2004 International Stem Cell Symposium, Genoa, Italy
- 2005 Neurology Grand Rounds, University of Florida
- 2005 Chicago Brain Repair Club, Keynote Speaker
- 2005 Co-Chair, US Army Exposure Treatment Research Program, Parkinson's Treatments, Tampa, Florida
- 2005 Keynote speaker, Annual Shepherd Center Brain Injury Conference, "Stem Cells and Regenerative Medicine for TBI"
- 2005 "An Evolutionary Approach from Extracellular Matrix to Stem Cells", University of Massachusetts Medical School, Worcester, MA

- 2005 Grass Foundation Lecturer, University of Vermont, "Stem Cells in Dishes and Animal Models for Neurological Disease"
- 2005 Invited lecture, University of Michigan, "Stem Cells in Dishes and Animal Models for Neurological Disease"
- 2005 Invited lecture, Frye-Halloran Symposium, Harvard/MGH, "Stem Cells and Cancer Stem Cells"
- 2006 Banbury Conference, Cold Spring Harbor, "Neurogenesis"
- 2006 University of New Mexico, "Cellular and Molecular Basis of Disease" Lectureship, "Translating Stem Cell Biology to Regenerative Medicine for Neurological Disease"
- 2006 National Institutes on Aging, Stem Cells and Aging Symposium, invited speaker
- 2006 FENS European Neuroscience Meeting Invited Symposium Speaker, Vienna Austria
- 2006 Invited Speaker, American College Veterinary Internal Medicine Meeting, Louisville, KY
- 2006 Mayo Clinic, Jacksonville, Florida, Invited Speaker, "Embryonic, Adult and Cancer Stem Cells In Vitro and In Vivo"
- 2006 University of California Santa Barbara, Invited Speaker, "Embryonic, Adult and Cancer Stem Cells In Vitro and In Vivo"
- 2007 Brain Awareness Public Lecture, University of Florida McKnight Brain Institute, "How The Brain Works, How The Broken Brain Can Be Fixed"
- 2007 Elan Pharmaceuticals, invited lecture, "Stem Cells, Neurogenesis and Microglia"
- 2007 Stem Cells and CNS Repair Biosymposia, Boston, invited lecturer, "Embryonic, Adult and Cancer Stem Cells In Vitro and In Vivo"
- 2007 Brain Injuries Symposium, Orlando, FL, Invited lecturer on stem cells
- 2007 Invited speaker, 4th International Meeting of the Stem Cell Network North Rhine Westphalia at Dusseldorf, Germany, "Embryonic, Adult and Cancer Stem Cells In Vitro and In Vivo"
- 2007 Invited speaker, Updates in Neuro-Oncology, Arezzo, Italy
- 2007 Co-Organizer, STAIR Stroke Conference, Arlington, Virginia
- 2008 Invited Speaker, ForNeuroCell Symposium, Munich, Germany
- 2008 Invited Speaker, Southeastern Pharmacology Meeting, Charleston, SC
- 2009 Invited Speaker, ASGT Symposium on "Gene and cell therapy for brain injury", San Diego, CA
- 2009 Invited Speaker, 2nd International Stem Cell Research Symposium (IRM), San Francisco

In addition to augmenting the *ex vivo* expansion, and attempting to control fate and differentiation of stem/progenitor cells isolated from various sources including the postnatal and adult periventricular subependymal zone using culture methods developed in our lab that affect cell-cell and cell-substrate interactions, we also are using new molecular approaches (e.g. profiling single stem/progenitor cells) to characterize novel developmental genes involved in cell genesis, survival and cell death. The main strategy of these studies is to exploit well-known approaches for gaining access to signaling pathways that direct cell survival, proliferation, and fate determination. As these gene expression profile studies are refined, future approaches can rely on stem/progenitor cells as vehicles for gene therapy in human disease. It is hopeful that gene-discovery, and studying biogenic factors for and from stem cells, will lead to the development of new drugs that expand normally quiescent stem cell populations, and lead to their migration and differentiation within cell-deficient targets without the need for *ex vivo* manipulation and grafting. Finally, a part of our team has begun to exploit similar cell and molecular approaches to study cellular morphotypes and genes involved in stem/progenitor cell growth associated with pediatric and adult brain and bone tumors, as well as prostate cancer. Since our lab was the first to demonstrate a solid tumor

The major research goal of my program is to see the use of stem cell and gene therapies, and regenerative medicine in general, become major treatment approaches for debilitating diseases and injuries. There is widespread interest in the use of stem cells for cell replacement therapies in human neurological disease and stroke; however, we have only begun to appreciate the cell and molecular biology of these cells that hold great promise for transplantation or other therapies relying on the use of different stem/progenitor cell populations for many repair approaches. Five different but concurrently run sets of experiments aim to advance our understanding and use of neural stem cell therapies. The five approaches are: 1) The development and refinement of new *in vitro* methodologies that, in part, rely on insights from studies of hematopoiesis to selectively expand and particular embryonic and adult, including IPS, stem or progenitor cell populations, and also control their differentiation into particular types of neurons; 2) The discovery of genes involved in stem cell growth and differentiation using clonal populations of stem/progenitor cells as a model for neurogenesis, by way of creating cell and molecular libraries from normal and neurological disease brain; 3) Use of animal models and *in vitro* bridge bioassays of neurodegenerative disease, particularly Parkinson's Disease, by a dedicated cell culture and transplant group in the lab that is refining methods of integrating grafted stem/progenitor cells into altered adult brain circuitries; 4) Stem cell plasticity and homing in a variety of tissues; and 5) Studying distinct stem/progenitor cell populations as a potential source of primary tumors.

RESEARCH INTERESTS:

- 2009 Inited Participant, Hereditary Disease Foundation Workshop on "Neuroinflammation in the pathogenesis and treatment of Huntington's Disease", New York, NY
- 2009 Inited Speaker, Institute Pasteur and Jussieu, Paris, France, "Neural Stem Cells"
- 2009 Inited Speaker/Organizer, Sausalito, CA, "Brain Cancer Stem Cells", for the Advance Brain Cancer Cure Foundation

Developmental neurobiology, traumatic brain injury and neurodegenerative diseases including Parkinson's Disease, Stroke, CNS regeneration, stem cells, persistent neurogenesis in the adult human brain, stem/progenitor cell tumorigenesis, combining stem cell and gene therapies for neurodegenerative diseases and cancer, comparative vertebrate regeneration.

stem-like cell, the brain glioma neurosphere-generating cell, as well as osteosarcoma (sarcoma-generating cell), we are interested in comparing normal and abnormal tissue generation and gene expression associated with potent cells from a variety of normal and cancerous tissues.

The studies listed above all compare cell and molecular characteristics of normal and transformed cells to define basic principles of normal and abnormal stem cell growth and differentiation. We rely on the use of transgenic mouse models of disease to isolate and characterize engineered or primed stem/progenitor cell populations, and then reintroduce and study these cells in altered tissues and compromised CNS circuitry arrangements that represent particular hallmarks of degenerative and oncogenic disease. This is in keeping with the convergence of transplantation and oncogenic transformation studies in the bone marrow hematopoiesis research field. The study of adult human brain neurogenesis likewise requires rigorous experimental investigation of the biology of neural stem cells, as has been applied to their counterparts in blood.

Most recent stem cell studies in the lab are looking at near-future applications of neuroprotection and repair in Parkinson's Disease, inherited ataxias as well as other neurological disorders, and cancer, as well as applying insights gained from comparative vertebrate regenerative biology to human regenerative medicine.

CONTACT INFORMATION

Michael L. Good, M.D.
Dean, College of Medicine
University of Florida
PO Box 100215
Gainesville, FL 32610-0215
352-273-7500
mgood@ufl.edu

Dennis A. Steindler, Ph.D.
Executive Director, McKnight Brain Institute
Professor of Medical Research
Departments of Neuroscience and Neurosurgery
100 S. Newell Drive
PO Box 100236
Gainesville, FL 32610-0236
352-273-5550
steindler@mbi.ufl.edu

Marco Pahor, MD
Professor and Chair, Department of Aging and Geriatric Research
Director, Institute on Aging
1329 SW 16th Street, Room 5263
PO Box 100107
Gainesville, FL 32610-0107
352-265-7227
mpahor@aging.ufl.edu

Thomas C. Foster, Ph.D.
Professor of Neuroscience
McKnight Chair for Research on Aging and Memory
Investigator, McKnight Brain Institute
PO Box 100244
Gainesville, FL 32610-0244
352-392-4359
foster@mbi.ufl.edu

Veronica Meinhard
Senior Director of Principal Gifts
Office of Development & Alumni Affairs
UF College of Medicine
PO Box 100243
Gainesville, FL 32610-0243
352-273-7986
vmeinhard@ufl.edu

