



C O R P O R A T E F O R U M :

AGING 
TECHNOLOGY

UNIVERSITY OF SOUTH FLORIDA

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USF

RESEARCH &
INNOVATION

WELCOME

A Message from Dr. Paul Sanberg Senior Vice President for Research, Innovation & Knowledge Enterprise



It is my pleasure to welcome you to the USF Corporate Forum on Aging and Technology. Today, we come together as a community of innovators from a wide variety of disciplines and experiences with one goal: To improve the quality of life for everyone as they age.

There is no better time than now to take on the universal challenges of aging, and no better place to do that than here in the Tampa Bay Region. By 2030, nearly one quarter of the population of Florida – now the nation’s third largest state – will be over the age of 65. The U.S. Census Bureau also reports that by 2030, all Baby Boomers will be older than age 65 and are projected to outnumber children for the first time in U.S. history.

We all want to age with good health and with as much independence and dignity as possible. Our communities seek to find effective and affordable ways to care for the most vulnerable elderly in a manner that allows all people equal access to high-quality care and a good quality of life. As the executive director of USF’s Center

of Excellence for Aging & Brain Repair – where we integrate basic and translational research, education and clinical services to address the cognitive issues in aging and neurodegenerative diseases – I can attest that the complexities of this mission require not only cutting-edge research and innovation, but everyone working together.

As a preeminent public research university located in a large metropolitan area and as an international leader in academic invention, USF is uniquely positioned to conduct research on aging and collaborate with industry on bringing new technologies to market. You will hear about some of the projects we have underway today, but I encourage you to imagine all that might be achieved when partnering with the USF System’s world-class researchers. As a community of innovators, we are bold in our thinking and know that great collaborations produce great solutions.

Today’s event is made possible by USF’s Office of Corporate Partnerships, which serves as the “front door” for engaging with the USF System. The members of the Faculty Advisory Group on Aging & Technology listed in this program and the panelists you will hear from today are global leaders in their disciplines. We encourage corporations with an interest in aging and technology – or in any other area – to inquire on how the USF System can work with you in advancing a new idea or technological innovation.

Thank you for being with us today and for being invested in a shared mission and vision. Together we can shape a future where everyone can age with dignity, with good care and with a sense of personal worth.

Dr. Paul Sanberg is USF’s Senior Vice President for Research, Innovation & Knowledge Enterprise; a Distinguished University Professor; executive director for the Center of Excellence for Aging and Brain Repair; and founder and president of the National Academy of Inventors. A neuroscientist, Dr. Sanberg’s research focuses on discovering innovative ways to repair the brain damage caused by stroke, injury, ALS and Alzheimer’s disease. He holds 52 U.S. patents and 111 international patents, and has published more than 675 articles and 14 books, with more than 32,571 citations.

OFFICE OF CORPORATE PARTNERSHIPS

USF’s Office of Corporate Partnerships makes it easier than ever for companies to connect with one of the nation’s fastest rising public research university systems. When your company is looking for a partner in research, innovation or talent development, we will help to make the connection.

If you would like more information about our research programs in this area or partnering opportunities with us, please contact the USF Office of Corporate Partnerships at ocpinquire@usf.edu or (813) 974-8345.

www.usf.edu/partner

AGENDA

10:00am Welcome & Overview

Dr. Michael Bloom, Assistant Vice President, Corporate Partnerships
Dr. Bill Kearns, President, International Society for Gerontechnology
Dr. James L. Fozard, Courtesy Faculty, USF School of Aging Studies

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10:15am Innovations in Aging in Place

Company Presentations

AARP Innovation Labs - Andy Miller, Senior Vice President, Innovation and Product Development
elminda - Dr. Ziv Peremen, Vice President, Medical Solutions

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Research Spotlight

Dr. Carla VandeWeerd, Associate Professor, USF College of Engineering
Dr. Ali Yalcin, Associate Professor, USF College of Engineering

Discussion moderated by Dr. Jose Zayas-Castro, Executive Associate Dean, USF College of Engineering

11:15am Innovations in Cardiovascular Patient Self-Management

Company Presentations

GuideWell Innovation - Kirstie McCool, Executive Director
MediVu - Glenn Palmiere, Vice President, Business Development

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Research Spotlight

Dr. Theresa Beckie, Associate Dean and Professor, USF College of Nursing

Discussion moderated by Dr. Peter Kaufmann, Associate Dean of Research, Innovation & Entrepreneurship, USF College of Nursing

12:15pm Lunch

Greetings from Dr. Paul Sanberg, Senior Vice President, USF Research & Innovation
Presentation by Dr. Ross Anzel, Director, USF School of Aging Studies

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1:00pm Innovations in VR for Health

Company Presentation

VRHealth - Eran Orr, Founder & Chief Executive Officer

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Research Spotlight

Dr. Stephanie Carey, Research Coordinator & Assistant Research Professor, Center for Assistive, Rehabilitation & Robotics Technologies (CARRT)

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Discussion moderated by Stephen Sundarrao, Associate Director, CARRT

2:00pm Innovations in Hearing and Speech Technology

Company Presentations

Lively - Dr. Harvey Abrams, Head of Audiology Research
Sonova & Phonak - Dr. Gurjit Singh, Senior Research Audiologist

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Research Spotlight

Dr. David Eddins, Professor and Associate Director, Global Center for Speech and Hearing Research

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Discussion moderated by Dr. Robert Frisina, Professor, Acting Chair USF Medical Engineering, Director, Global Center for Hearing and Speech Research

MEET THE FACULTY PANELISTS



Dr. Ross Andel

Professor and Director | USF School of Aging Studies
randel@usf.edu | (813) 974-9743

Dr. Andel's primary research interest is the investigation of modifiable risk factors for cognitive decline and cognitive impairment including Alzheimer's disease and other types of dementia. He also studies strategies involved in early identification of cognitive impairment among older adults.



Dr. Theresa Beckie

Associate Dean and Professor | USF College of Nursing and USF Morsani College of Medicine
tbeckie@health.usf.edu | (813) 974-9202

Dr. Beckie's research interests include women's cardiovascular health, behavior change interventions, cardiac rehabilitation, quality of life and cardiac surgery with a particular emphasis on heart disease in young women. Dr. Beckie collaborated with colleagues in the USF Muma College of Business and the College of Engineering to develop HerBeat, a smart phone app which enables women who suffer from cardiac disease to monitor their health.



Dr. Stephanie Carey

Research Coordinator & Assistant Research Professor
Center for Assistive, Rehabilitation & Robotics Technologies (CARRT)
scarey3@usf.edu | (813) 974-5765

Dr. Carey's expertise is in designing assistive technologies and implementing testing protocols for determining effectiveness of assistive technologies on human performance. Dr. Carey is the research coordinator at USF's CARRT. Her research includes gait analysis, design and testing of prosthetics, orthotics and designing exercise systems for astronauts.



Dr. José Zayas-Castro

Professor of Industrial and Management Systems and Executive Associate Dean
USF College of Engineering
josezaya@usf.edu | (813) 974-5589

Dr. Zayas-Castro's research interests include health care systems, including modeling, analysis, data analysis, economic analysis and process improvement. His projects reside at the intersection of engineering entrepreneurship and innovation, the integration of research and engineering education, and diversity and inclusion.



Dr. David Eddins

Professor and Associate Director | Global Center for Hearing and Speech Research
deddins@usf.edu | (813) 974-2464

Dr. Eddins serves as a professor in USF's departments of Communication Sciences & Disorders and Chemical & Biomedical Engineering and as the Director of the Auditory & Speech Sciences Laboratory. His research focuses on understanding and ameliorating hearing loss and voice disorders and developing technology to support these endeavors.



Dr. James L. Fozard

Courtesy Faculty | USF School of Aging Studies

Dr. Fozard is the cofounder of the discipline of gerontechnology, applying technology for the benefit of aging populations. Dr. Fozard is a charter member of the International Society for Gerontechnology and was named its first Grandmaster of Gerontechnology in recognition of his contribution to the field. Dr. Fozard previously served on the faculty of Harvard Medical School and Johns Hopkins University.



Dr. Robert Frisina

Professor and Acting Chair of the USF Department of Medical Engineering | Director of the Global Center for Hearing and Speech Research
rfrisina@usf.edu | (813) 974-4013

Dr. Frisina is a Professor in the Medical Engineering, Chemical & Biological Engineering, and Communication Sciences & Disorders Departments. Dr. Frisina's main research is a NIH funded program whose major themes are aimed at developing novel therapies for diagnosing, preventing, or treating cases of environmentally or drug-induced hearing loss, and age-related hearing deficits.



Dr. Peter Kaufmann

Associate Dean of Research, Innovation & Entrepreneurship | USF College of Nursing
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Dr. Kaufmann has extensive expertise in clinical trials and is dedicated to advancing the role of academic nursing programs by implementing effective chronic disease prevention and management through clinical research. Dr. Kaufman previously served as deputy chief of the Clinical Applications and Preventive Branch in the Division of Cardiovascular Sciences at the National Heart, Lung, and Blood Institute/National Institutes of Health.



Dr. Bill Kearns

President | International Society for Gerontechnology
kearns@usf.edu

Dr. Kearns is a retired associate professor from USF's College of Behavioral & Community Sciences, where he earned international recognition as a researcher and inventor. His research interests lie in the development and use of telesurveillance and cognitive prosthetics, to support the physical, social, and community health and well-being needs of adults to facilitate aging-in-place.



Stephen Sundarrao

Associate Director | Center for Assistive, Rehabilitation & Robotics Technologies (CARRT)
sundarra@usf.edu | 813-974-5346

Stephen Sundarrao is the Associate Director for USF's Center for Assistive, Rehabilitation & Robotics Technologies (CARRT) and the President and CEO of Rehab Ideas, a start-up company he founded in 2006 in collaboration with USF. He has three patents issued and has commercialized five patented products developed at USF. His undergraduate and graduate education is in Mechanical Engineering, and he has over 25 years' experience as a rehabilitation engineer and managing a statewide program.



Dr. Carla VandeWeerd

Associate Professor | USF College of Engineering
cvandewe@usf.edu | (813) 974-7773

Dr. VandeWeerd's research focuses on the intersection of data, technology and health. Dr. VandeWeerd's work in exploring health and healthcare in a community of older adults was awarded the Erickson Award for Excellence in Aging Research by the American Public Health Association. Along with Dr. Ali Yalcin, she co-founded the C.R.E.A.T.E. (Collaborative for Research & Education in Aging and Technology) Health research lab that focuses on the intersection of aging, technology and health.



Dr. Ali Yalcin

Associate Professor | USF College of Engineering
ayalcin@usf.edu | (813) 974-5590

Dr. Ali Yalcin is an associate professor of Industrial and Management Systems in the College of Engineering. His research interests include health care systems; modeling; analysis and control of discrete event systems; information systems; data analysis and knowledge discovery; and engineering education. With Dr. VandeWeerd, he co-founded the C.R.E.A.T.E. Health research lab.

MEET THE CORPORATE PANELISTS



Dr. Harvey Abrams
Lively | Head of Audiology Research
www.listenlively.com

Lively's mission is to bring face-to-face audiology care to more people than ever before. In a career spanning more than 40 years, Dr. Abrams has served in a number of academic, clinical, research and administrative capacities with the Department of Veterans Affairs, the Department of Defense, academia and private industry. He has served as chief of the Audiology and Speech Pathology Service and associate chief of staff for research and development at the Bay Pines VA Healthcare System, the director of research at the Army Audiology and Speech Center at Walter Reed Army Medical Center, and the director of audiology research at Starkey Hearing Technologies.



Kirstie McCool
GuideWell Innovation | Executive Director
www.guidewellinnovation.com

GuideWell Innovation's vision is to build a global center of health excellence, where thought leaders will converge to address current issues, evaluate emerging trends, and find new solutions to radically transform and reshape our industry. Ms. McCool works to connect Florida's entrepreneurs and innovators with strategic opportunities at GuideWell and the broader the healthcare ecosystem. Before joining GuideWell, she was the President & CEO of the International Business Innovation Association, a global non-profit that serves over 900 business incubators, technology accelerators and economic development agencies in over 60 countries.



Andy Miller
AARP Innovation Labs | Senior Vice President of Innovation and Product Development
<https://aarpinnovationlabs.org/>

AARP Innovation Labs accelerate the innovation ecosystem by working with startups, accelerators and the innovation community to empower people to choose how they live as they age. Prior to joining AARP, Mr. Miller served as chief innovation architect at Constant Contact and was the founder of the Small Business Innovation Loft, a startup accelerator. Mr. Miller is the founder of CardStar, a leading mobile loyalty platform, which was acquired by Constant Contact in 2012. Prior to CardStar, he founded Lumifi, Quece (acquired by Intellectual Ventures), RetirementSuite.com, and StockCar Stocks Mutual Fund, where he served on the board of directors.



Eran Orr
VRHealth | Founder and Chief Executive Officer
www.xr.health

VRHealth applications immerse users in fun and engaging experiences while walking them through specific movements and tasks, for medical and therapeutic purposes. Mr. Orr is an Ex IAF Executive Officer and holds a BA in Business Management, Government, and Politics, and an MBA in Entrepreneurship and Innovation Business Administration from Ben Gurion University. He founded VRHealth after experiencing long rehabilitation processes, and he believes that the XR technology (VR/AR/MR) will change healthcare as we know it.



Glenn Palmiere
MediVu | Vice President of Business Development
www.medivu.com

MediVu uses patented visualization technology of displaying actionable data to users making healthcare decisions. Mr. Palmiere is a business development executive with both public and private sector leadership experiences. He was appointed by Governor Jeb Bush as the Chief Information Officer for the Department of Children and Families, as well as the Chief Technology Officer for the State Technology Office. Mr. Palmiere has been published in over 100 periodicals for his work on efficiency through automation and was recognized by Computer World Magazine as one of the Top 100 Information Technology Leaders in the world.



Dr. Ziv Peremen
elminda | Vice President of Medical Solutions
www.elminda.com

elminda integrates big-data repositories and deep-learning algorithms, in a state-of-the-art BNA™ (Brain Network Analytics) technology that holds the potential to revolutionize the diagnosis, monitoring and treatment of brain-related disorders by measuring how effectively different parts of the brain are connecting and communicating. Dr. Peremen is an experienced leader with a diverse background in physics, cognitive neuroscience and big data and holds a PhD in Cognitive Neuroscience from Tel Aviv University.



Dr. Gurjit Singh
Sonova & Phonak | Senior Research Audiologist
www.sonova.com

Phonak, a subsidiary of Sonova, is the largest manufacturer of hearing loss rehabilitation technologies in the world. Dr. Singh works in the long-term research division of the company based in Toronto. In addition to holding adjunct professor status in the Department of Psychology at Ryerson University, he also holds adjunct status at the University of Toronto and the Toronto Rehabilitation Institute. Dr. Singh is also a clinical audiologist and the current past-president of the Canadian Academy of Audiology.

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SELECT USF RESOURCES IN AGING & TECHNOLOGY

Byrd Alzheimer's Center and Research Institute

health.usf.edu/byrd

The USF Health Byrd Alzheimer's Center and Research Institute is dedicated to the prevention, treatment and cure of Alzheimer's disease and related disorders. The institute is a multi-disciplinary center of excellence at the University of South Florida that provides compassionate family-centered patient care, performs cutting edge research and delivers quality public and professional education.

C.R.E.A.T.E. Health (Collaborative for Research & Education in Aging and Technology)

www.usf.edu/engineering/create-health

C.R.E.A.T.E. Health's mission is to harness the power of modern technology to improve health and quality of life. We partner with entrepreneurs and communities to innovate health systems and to design, deploy and evaluate innovative technology solutions designed to improve safety, security and quality of life for our growing population.

Center for Assistive, Rehabilitation & Robotics Technologies (CARRT)

carrt.eng.usf.edu

The Center for Assistive, Rehabilitation & Robotics Technologies at USF is a multidisciplinary center that integrates research, education and service for the advancement of assistive & rehabilitation robotics technologies.

Center of Excellence for Aging and Brain Repair

health.usf.edu/medicine/neurosurgery/ceabr

The mission of the Center of Excellence for Aging and Brain Repair is to develop new therapeutic strategies to promote repair and regeneration of the aging and diseased brain. Building on a foundation of excellence in basic and clinical research, we focus on translating innovative ideas into industrial partnerships, educational and clinical services to address key needs of the community and those suffering from brain injury and disease.

Cognitive Aging Lab

health.usf.edu/medicine/labs/cna-lab

The Cognitive Aging Lab is aimed at improving the effectiveness of cognitive training techniques to compensate for age-related cognitive decline. Ultimately, its goal is to promote health, well-being and independence among older adults.

Florida Policy Exchange Center on Aging

fpeca.cbcs.usf.edu

The mission of the Florida Policy Exchange Center on Aging is to provide timely, high-quality research and policy analysis to public officials, program administrators, and other stakeholders concerned with Florida's aging population specifically assessing the health and well-being of older adults.

Global Center for Hearing & Speech Research

www.gchsr.usf.edu

The Global Center for Hearing & Speech Research formally links USF's Departments of Communication Sciences & Disorders and Chemical & Biomedical Engineering with the goal of applying multi-disciplinary techniques to solve technological and biomedical problems faced by persons with hearing loss, speech production and speech perception deficits.

School of Aging Studies

www.usf.edu/cbcs/aging-studies

The primary mission of the School of Aging Studies is excellence in applied aging research and education. Its emphasis is on research that is aimed at improving the lives of older adults and their family members. Areas of research include aging and health, cognitive aging and Alzheimer's disease, public policy and long-term care, and aging and health disparities.



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