THE BIOLOGY OF AGING
“ADVANCES IN THERAPEUTIC APPROACHES TO EXTEND HEALTHSPAN”
JUPITER, FLORIDA
JANUARY 22-25, 2017

DR. PAUL ROBBINS, DIRECTOR OF THE TSRI CENTER ON AGING
Would like to thank our Symposium Sponsors

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Novartis
2ND SCRIPPS FLORIDA SYMPOSIUM
BIOLOGY OF AGING KICKOFF
SUNDAY, JANUARY 22, 2017

EVENING SCHEDULE

5:30-7:00 pm  **Registration – Speakers and Attendees**  
*Located in Building B lobby area

5:30-7:00 pm  **Welcome Reception**  
*Located in the Scripps Café – Building B

7:00 pm  **Welcoming Comments**  
Paul Robbins, Director of the TSRI Center on Aging  
John Couris, CEO, Jupiter Medical Center  
Mr. Richard King, COO of The Scripps Research Institute

7:15 pm  **Keynote Lectures**  
S. Jay Olshansky, University of Illinois - Chicago  
‘In Pursuit of the Longevity Dividend’

7:55 pm  Felipe Sierra - National Institute on Aging  
‘Geroscience and the Improvement of Late Life Health’

8:35 pm  Steven Austad – University of Alabama – Birmingham  
‘Sex, Death and Aging: a New Paradigm for Exploring Mechanisms of Senescence’

Thank you to our sponsor for this evening
Mrs. Elizabeth Fago  
And sons Paul Walczak & Joseph Fago
INTRODUCTORY SPEAKER BIOS

Mr. John D. Couris  
Chief Executive Officer, JMC

John D. Couris serves as President and Chief Executive Officer of Jupiter Medical Center, the region’s leading medical center and the only nationally 4-star rated hospital in Palm Beach and Martin Counties. Under Mr. Couris’ leadership, Jupiter Medical Center has continued to expand its services and forge innovative partnerships with some of the leading providers in the nation with the primary goal of providing world-class care to its patients at every stage of their health care journey.

Mr. Richard A. King  
Chief Operating Officer, TSRI

Mr. King joined TSRI in 2016. He oversees all operations within the organization in La Jolla, California and Jupiter, Florida, which includes over 300 independent laboratories. Prior to joining TSRI, Mr. King held senior leadership roles in life sciences companies, most recently as CEO and president of AcelRx Pharmaceuticals, Inc., a development stage company focused on new pain medications. Mr. King holds a B.Sc. in Chemical Engineering from University of Surrey and an M.B.A. from Manchester Business School.

KEYNOTE SPEAKER BIOS

Dr. S. Jay Olshansky  
Professor, Public School of Health, University of Illinois – Chicago

Dr. Olshansky is the author of The Quest for Immortality: Science at the Frontiers of Aging and A Measured Breath of Life. His research focuses on the upper limits of longevity and asking which populations are living longer and why, and what that means for society. Dr. Olshansky coined the phrase “the Longevity Dividend” to describe the economic and health benefits that would accrue to individuals and societies if we extend healthy life by slowing the biological processes of aging.

Talk title: ‘In Pursuit of the Longevity Dividend’

Felipe Sierra  
Director of the Division of Aging Biology, National Institute on Aging at NIH.

Dr. Sierra has been a leading proponent of Geroscience, an interdisciplinary field that aims to understand the relationship between aging and age-related diseases. The underlying premise of Geroscience is that since aging is the major risk factor for most debilitating chronic diseases, understanding of how aging contributes to the onset of disease will open up new avenues for disease prevention and cures.

Talk title: ‘Geroscience and the Improvement of Late Life Health’

Dr. Steven Austad  
Professor and Chair, Department of Biology, University of Alabama – Birmingham

Dr. Austad is Director of the Nathan Shock Center of Excellence in the Basic Biology of Aging at UAB and Scientific Director of the American Federation for Aging Research (AFAR). Dr. Austad has written for National History magazine, Scientific American, National Wildlife and International Wildlife and wrote the popular book Why We Age. His research focuses on mechanisms of aging, including deciphering the mystery of why species have vastly different lifespans.

Talk title: ‘Sex, Death and Aging: a New Paradigm for Exploring Mechanisms of Senescence’
SESSION 1: DRUG SCREENING/TESTING (CHAIR: JAMES KIRKLAND)

9:00-9:25  Gordon Lithgow – Buck Institute for Research on Aging
   ‘Robust and Reproducible Chemical Interventions in Aging’

9:25-9:50  Michael Petrascheck – The Scripps Research Institute – La Jolla
   ‘Extending Lifespan of Old Organisms’

9:50-10:15 Randy Strong—University of Texas - San Antonio
   ‘Sex-differences in Response to Aging Interventions: An Update from the Interventions Testing Program’

10:15-10:40 Richard Miller—University of Michigan
   “ITP 2017: Progress and Prospects”

10:40-11:05  Coffee Break - Scripps Café Area

11:05-11:30  Rafael de Cabo—National Institute on Aging (NIH)
   ‘CR, Lifespan and Healthspan; Where are we now?’

11:30-11:55  Laura Niedernhofer – The Scripps Research Institute - Florida
   ‘Novel Mouse Models of Accelerated Aging for Rapid Drug Testing’

SESSION 2: ANTI-GERONIC FACTORS (CHAIR: JUDY CAMPISI)

11:55-12:20  Amy Wagers—Harvard University
   ‘Strategies to Enhance the Regenerative Functions of Aging Stem Cells’

12:20-12:45  Brian Kennedy—Buck Institute for Research on Aging
   ‘Sex Differences and Aging in the mTOR Pathway’

12:45-1:10  Andrzej Bartke—Southern Illinois University
   ‘Adipose Tissue Function in Long-Lived Mice’

1:15-2:15  Lunch - Scripps Café Area

SESSION 3: SENOTHERAPEUTICS (CHAIR: DAVID SINCLAIR)

2:25-2:50  James Kirkland—Mayo Clinic
   ‘Senolytics and SASP-inhibitors for Age-related Chronic Diseases and Dysfunction’

2:50-3:15  Judy Campisi— Buck Institute for Research on Aging
   ‘To Kill or not to Kill (Senescent Cells)?’

3:15-3:40  Andrei Gudkov—Roswell Park Cancer Institute/Everon Biosciences
   ‘Small Molecule that Reduces Frailty Index and Extends Longevity in a Mouse Model of Chronological Aging: Molecular Mechanisms and Cellular Targets’

3:40-4:05  Thomas von Zglinicki - Newcastle University
   ‘Novel Drugs That Decrease Rodent Mortality’

4:05-4:30  Paul Robbins – The Scripps Research Institute – Florida
   ‘Identification of Novel Senotherapeutics for Extension of Healthspan’

4:45-6:45  Poster Session/Reception – Scripps Café Area

6:45 pm  Biology of Aging Banquet on the Scripps Patio
### SESSION 4: GENETIC IDENTIFICATION OF TARGETS FOR DRUG DEVELOPMENT (CHAIR: JAN VIJG)

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<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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<tbody>
<tr>
<td>9:00-9:25</td>
<td>Yousin Suh - Albert Einstein College of Medicine</td>
<td>‘Non-Coding Variants in Human Aging and Disease’</td>
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<td>9:25-9:50</td>
<td>Alan Shuldiner – Regeneron Genetics Center</td>
<td>‘High-throughput Human Genomics to Inform Development of Therapies for Age-Related Diseases’</td>
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<td>9:50-10:15</td>
<td>Jan Hoeijmakers – Erasmus University</td>
<td>‘The Impact of DNA Damage, Repair and Nutrition on Ageing’</td>
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<td>10:15-10:40</td>
<td>Nicholas Schork – J. Craig Venter Institute</td>
<td>‘Leveraging Genetic Associations in Drug Targeting for Longevity: Direct and Indirect Methods’</td>
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<td>10:40-11:05</td>
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<td>Coffee Break - Scripps Café Area</td>
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### SESSION 5: MOLECULAR TARGETS FOR DRUG DEVELOPMENT (CHAIR: LAURA NIEDERNHOFER)

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<tbody>
<tr>
<td>11:05-11:30</td>
<td>David Sabatini – MIT</td>
<td>‘Regulation of Growth by the mTOR Pathway’</td>
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<td>11:30-11:55</td>
<td>Ana Maria Cuervo – Albert Einstein College of Medicine</td>
<td>‘Targeting Selective Autophagy in Aging and Age Related Diseases’</td>
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<td>11:55-12:20</td>
<td>David Sinclair – Harvard University</td>
<td>‘Impairment of an Endothelial NAD+–H2S Signaling Network is a Reversible Cause of Vascular Aging in Mammals’</td>
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<td>12:20-12:45</td>
<td>Anne Brunet – Stanford University</td>
<td>‘Modeling Aging’</td>
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<td>12:50-1:50</td>
<td>Lunch - Scripps Café Area</td>
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<tr>
<td>12:50-1:50</td>
<td>Rm B159</td>
<td>Bita Nakhai and Rebecca Fuldner – National Institute on Aging ‘An Overview of Scientific Peer Review @ NIA’ Roundtable Discussion - Graduate Students, Post-docs and Junior Faculty <strong>Lunch may be eaten during talk</strong></td>
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### 2:00-5:00

**Free time to explore the area**

### SESSION 6: STEM CELLS AND STEM CELL FACTORS (CHAIR: AMY WAGERS)

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<tr>
<td>5:30-5:55</td>
<td>Heinrich Jasper – Buck Institute for Research on Aging</td>
<td>‘Age-related Stem Cell Dysfunction: Causes and Consequences’</td>
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<tr>
<td>5:55-6:20</td>
<td>Johnny Huard – University of Texas Health Science Center – Houston</td>
<td>‘Cell Autonomous and Non-Autonomous Mechanisms of Stem Defects with Aging’</td>
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<tr>
<td>6:20-6:45</td>
<td>Georgina Ellison – Kings College</td>
<td>‘Impact of Ageing and Senescence on Endogenous Cardiac Stem/Progenitor Cells in the Human Heart’</td>
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### 7:15 pm

**A Therapeutic Event at the Loggerhead Marinelife Center**

*Buses will be located in front of Building B – departure at 7:00 pm*

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**SESSION 7: CLINICAL TRIALS ON AGING (CHAIR: STEVEN AUSTAD)**

9:00-9:25  Joan Mannick – Novartis  
“Developing mTOR Inhibitors to Treat Aging-Related Conditions in Elderly Humans”

9:25-9:50  Tony Wyss-Coray – Stanford University  
‘Systemic Modulators of Brain Aging’

9:50-10:15  Jill Crandall – Albert Einstein College of Medicine  
‘Intervention Trials in Older Adults: Successes and Challenges’

10:15-10:40  Nir Barzilai – Albert Einstein College of Medicine  
‘Taming Human Aging’

10:40-11:05  Peter Rabinovitch – University of Washington  
“Reversing Muscle Aging by Enhancing Mitochondrial Function”

11:05-11:30  Coffee Break – Scripps Café Area

**SESSION 8: PANEL DISCUSSION (CHAIR: PAUL ROBBINS)**

11:30-1:00  Participants

Steve Austad – University of Alabama - Birmingham  
Nir Barzilai - Albert Einstein College of Medicine  
Nathaniel David - Unity Biotechnology  
James Goldenberg - Medical Specialists of the Palm Beaches  
James Kirkland – Mayo Clinic  
Kevin Lee - Glenn Foundation  
Will Maier – MAPI Group  
Joan Mannick - Novartis  
Felipe Sierra – National Institute on Aging, (NIH)

1:00  Close of Meeting  
1:00  Box Lunch to go – Scripps Café Area

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