DALLAS-ACC PROGRAM

PARK CITIES HILTON, DALLAS, TEXAS

SPONSORED BY
THE CENTER FOR VITAL LONGEVITY

THE UNIVERSITY OF TEXAS AT DALLAS
Dear Friends:

We are delighted that you are here for Dallas-ACC. The cognitive neuroscience of aging is a field that is moving forward rapidly. Dissemination of research findings is distributed across a number of conferences, and we sensed a need for a meeting focused solely on aging and cognitive neuroscience. So we created Dallas-ACC. (“ACC,” by the way, stands for Aging and Cognition Conference.) We began organizing this conference with a small set of emails to potential presenters in late October, and we had a terrific response. The conference evolved from there, and we ended up with 39 speakers and nearly as many posters. We are thrilled with the level of participation, as well as the caliber of the presentations. We hope to continue this conference on an annual or biannual basis if there is continued enthusiasm. The easy accessibility of Dallas allows us to keep the conference short, so that you are able to enjoy part of the weekend with your family and friends, and miss only one day of work.

We are excited about the establishment of the new Center for Vital Longevity at The University of Texas at Dallas and the terrific research collaborations available with our colleagues from The University of Texas Southwestern Medical Center and The University of Texas at Arlington. We have received tremendous support from UT Dallas at all levels, including from Dr. David E. Daniel, the University’s president and our host for Sunday’s wonderful dinner at the Dallas Museum of Art; Dr. Hobson Wildenthal, provost; and Dr. Bert Moore, dean of the School of Behavioral and Brain Sciences. We also thank the Friends of the Center for Vital Longevity who have played such a remarkable role in encouraging us throughout the evolution of this center: Mary Susan Barnhill, Dick Collins, Milla Perry Jones and Sandra Thomas. The support of the community will be vital to our success. Paula Abercrombie, Blair Flicker and April Norambuena of the Center for Vital Longevity have done an excellent job planning and executing this conference. We can never thank them enough. And we thank the Park and Rypma lab members for their cheerful and competent help, as well.

Finally, on behalf of all the researchers at the conference, we would like to thank the National Institute on Aging for the support of nearly all research presented at this conference.

We have made remarkable strides in understanding the aging mind. Understanding and slowing the process of neurocognitive aging is one of the premier scientific challenges facing our society. This conference will play a role in moving us forward faster and with more creativity and innovation than would have occurred in its absence.

Sincerely,
Denise Park and Bart Rypma
Conference Organizers
Conference Information

CONFERENCE WEBSITE:
http://vitallongevity.utdallas.edu/dallas-acc

CONFERENCE LOCATION
Dallas-ACC will take place at the Park Cities Hilton in Dallas. The Park Cities Hilton is at 5954 Luther Lane, just off Preston Road and south of Northwest Highway. THIS IS NOT THE DOWNTOWN HILTON and is located in the University Park area of Dallas. Be sure to note the location to your cab driver. The phone number is 214-368-0400.

PRESENTATIONS

LENGTH OF TALK
Length of talk: The conference will be in the SFN format, with 12-minute talks, followed by 3 minutes of questions. It is imperative that you keep your talk to this length. The moderator will insist that you end on time.

LOADING YOUR TALK PRIOR TO YOUR SESSION
If you were unable to provide your presentation to us prior to the conference, please stop by to load your talk in the morning before the conference starts, if you have a morning talk, and during lunch if you have an afternoon talk. Someone will be available to help you.

FOOD

Saturday night reception: We are having an informal wine and cheese reception at 6 p.m. for early arrivals on Saturday night.

BREAKFAST AND LUNCH
We will give out-of-town guests a ticket for a buffet breakfast in the hotel dining room each morning. Registered participants also will receive tickets for lunch at the hotel. Dinner will be provided on Sunday night for all invited speakers and a guest (details below). This will cover all of your meals at the conference, so we will not reimburse for food.

DINNER ON SUNDAY NIGHT
We will have an elegant dinner at the beautiful Dallas Museum of Art Sunday night for all of the speakers and their one invited guest. We are thrilled that Dr. Dan Schacter of Harvard University will be our dinner speaker. Dr. Schacter is a renowned researcher and the author of Seven Sins of Memory, a New York Times notable book of the year.

This event will be hosted by Dr. David Daniel, president of UT Dallas, and Friends of the Center for Vital Longevity. The center is only about one month old, so this conference and dinner are exciting for us. We have invited some Dallas business people and philanthropists to the dinner to mingle with the neuroscientists. Dallasites are keenly interested in neuroscience and will be quite eager to learn about what you do, so please include our community guests in your conversation. You'll find your Dallas dinner companions to be interesting and friendly, so it should be a good time for all.
TRAVEL AND REIMBURSEMENT INFORMATION

HOTEL RESERVATIONS
You have been booked for a Jan. 30 arrival (Saturday) and a Feb. 1 (Monday) departure. Your room will be direct-billed to us, and you will be responsible only for incidentals. Guests of the primary speakers (students or postdoctoral candidates) will be paired with a roommate of the same gender.

TRANSPORT TO HOTEL
Cab fare to the hotel from Dallas/Fort Worth International Airport is usually about $45 each way. You will be reimbursed a maximum of $90 for transport.

REIMBURSEMENT
We have changed our plans and are making lunches available at the hotel during the poster session, with dinner at the art museum Sunday evening. All rooms are direct-billed, as is airfare. We will have some paperwork to sign for cab reimbursement.

DEPARTURE
We request that our guests book departure flights no earlier than 5:30 p.m. on Monday.

ASSISTANCE
If you have questions or need assistance, email our conference managers, April Norambuena (april@utdallas.edu) or Paula Abercrombie (paula@utdallas.edu). The phone number is 972-883-3255.

LOCAL PARTICIPANTS
If you are from UT Dallas, UT Southwestern Medical Center or UT Arlington, you should note that parking is $18 per day at the Hilton, although there is less expensive and free parking nearby. We are sorry, but we are unable to cover any expenses for local participants due to a new state law. But we can provide you with lunch tickets, which are available to all registered participants.
SUNDAY, JANUARY 31, 2010

WELCOMING REMARKS
8:30 - 9 am
Hobson Wildenthal, Provost, UT Dallas
Denise Park and Bart Rypma, Conference Organizers

STRUCTURAL IMAGING/NIA INFORMATION SESSION
Moderator: Karen Rodrigue, PhD
9 - 9:15 am
Age-related changes in brain structure: Regional vulnerability, cognitive correlates, and vascular modifiers
- Naftali Raz, PhD - Wayne State University

9:15 - 9:30 am
Brain tissue signal changes with aging and cognitive decline
- D.H. Salat ab, S.Y. Lee ac, A.J. van der Kouwe ab,
  D.N. Greve ac, B. Fischl abd, H.D. Rosas ac
a Department of Radiology, Massachusetts General Hospital;
b Athinoula A. Martinos Center for Biomedical Imaging,
Massachusetts General Hospital and Harvard Medical School;
c Department of Neurology, Massachusetts General Hospital;
d Computer Science and Artificial Intelligence Laboratory,
Massachusetts Institute of Technology;
e VA Boston Healthcare System

9:30 - 9:45 am
Distinguishing between normal and pathological brain aging in the Baltimore Longitudinal Study of Aging
- Susan Resnick, PhD - NIA/NIH

9:45 – 10 am
Structural changes in the aging East Asian brains: A first look
- Michael Chee, MD, Sam Sim, Hui Zheng, Vivian Isaac, Karren Chen - Duke/NUS Graduate Medical School Singapore

10 - 10:30 am
Opportunities and outlooks for cognitive aging research at the NIH
- Molly Wagster, PhD, and Jonathan King, PhD - NIH/NIA

10:30 -10:45 am
Break

BASIC PROCESSES OF NEUROCOGNITIVE AGING SESSION
Moderator: ILANA J. BENNETT, PhD
10:45 – 11 am
Age-related decline in neural specialization and its behavioral consequences
- Thad Polk, PhD a, Joshua Carp a, Joonkoo Park a and Denise Park, PhD b
a University of Michigan
b UT Dallas

11 - 11:15 am
Prefrontal cortex mediation of age-related processing-efficiency decline
- Bart Rypma, PhD - UT Dallas

11:15 - 11:30 am
Mechanisms of the impact of distraction and multitasking on working memory in normal aging
- Adam Gazzaley, MD, PhD – University of California, San Francisco
SUNDAY, JANUARY 31, 2010

11:30 – 11:45 am
Heterogeneity in cognitive aging: Brain activation patterns during working memory performance
- Ulman Lindenberger a,b, Irene Nagel a,b, Shu-Chen Li a,
  Hauke Heekeren a,b, and Lars Bäckman ac

a Max Planck Institute for Human Development, Berlin, Germany
b Department of Psychology, Freie Universität Berlin, Berlin, Germany
c Karolinska Institute, Stockholm, Sweden

11:45 – 12 pm
Neural correlates of age-related failures of dynamic allocation of attentional control
- Trey Hedden, PhD - Massachusetts General/Harvard University

12 – 1:30 pm
LUNCH AND POSTER SESSION 1

MEMORY SESSION I
Moderator: ANGELA H. GUTCHESS, PhD

1:30 – 1:45 pm
Age differences in brain activity during perceptual vs. reflective attention

1:45 – 2 pm
What is the functional significance of age-related cortical over-recruitment during memory encoding?
- Michael Rugg, PhD, and Marianne de Chastelaine, PhD - University of California, Irvine

2 – 2:15 pm
Neural correlates of encoding activity across the lifespan
- Heekyeong Park a, Kristen Kennedy b, Karen Rodrigue b,
  Andrew Hebrank b, Blair Flicker b and Denise Park b

a UT Arlington
b UT Dallas

2:15 – 2:30 pm
Default activity in working memory and long-term memory
- Denise Park a, Thad Polk a, Eric Leshikar c, Andy Hebrank a

a UT Dallas
b University of Michigan
c University of Illinois

2:30 – 2:45 pm
Age-related changes in stimulus-independent and stimulus-dependent brain activity underlie item and source memory impairments in older adults
- Audrey Duarte, PhD - Georgia Institute of Technology
**SUNDAY, JANUARY 31, 2010**

2:45 – 3 pm
Break

**MEMORY SESSION II**
*Moderator: JOSHUA GOH, PhD*

3 - 3:15 pm

Remembering the past and imagining the future in younger and older adults
- Daniel L. Schacter, PhD, Harvard University, and Donna Rose Addis, PhD, University of Auckland

3:15 - 3:30 pm
Age-related differences in the neural correlates of emotion processing: Evidence from brain imaging investigations
- Florin Dolcos, PhD - University of Alberta

3:30 – 3:45 pm
Longitudinal changes in memory-related fMRI activity: Data from the Betula Study
- Lars Nyberg, PhD - Umea University; A Salami, M Andersson, J Eriksson, G Kalpouzos, K Kauppi, J Lind, J Persson, S Pudas, and L-G Nilsson

3:45 – 4 pm
Self-referencing with age: Evidence for common and distinct encoding strategies
- Angela H. Gutches, Rebecca Sokal, Jennifer A. Coleman and Gina Gotthilf, Brandeis University

5:40 – 6 pm
Buses depart for dinner at the Dallas Museum of Art

6:30 - 9:30 pm
Wine social and dinner at the Dallas Museum of Art
Hosted by Dr. David E. Daniel, president of UT Dallas and Friends of the Center for Vital Longevity
Dinner Speaker: Dr. Daniel Schacter, Harvard University

**MONDAY, FEBRUARY 1, 2010**

**METHODS AND NETWORK/CONNECTIVITY SESSION**
*Moderator: JOANNA L. HUTCHISON, PhD*

8:30 - 8:45 am
Using resting-state fMRI signal to correct for age-related hemodynamic coupling changes
- Bharat Biswal, PhD - Rutgers University

8:45 – 9 am
Age-related changes in brain metabolism and vasculature
- Hanzhang Lu, PhD a, Feng Xu b, Yamei Cheng a, Denise Park b
  a UT Southwestern Medical Center
  b UT Dallas

9 – 9:15 am
Why is it harder to read our brain when we mature? Is it because our mental space becomes flatter? Lessons from a pattern classifier analysis of a large set of young and old adults
- Herve Abdi, PhD – UT Dallas
9:15 - 9:30 am
Complexity measures of the cerebral cortex in normal aging
- Richard King, MD, PhD - University of Utah

9:30 - 9:45 am
Effects of aging on functional and structural connectivity
- Roberto Cabeza, PhD - Duke University

9:45 – 10 am
Exploring the dynamics of brain networks in younger and older adults
- Cheryl Grady, PhD - Rotman Institute/University of Toronto

10 - 10:15 am
Break

10:15 - 10:30 am
New evidence on dopamine and cognitive aging
- Lars Backman, PhD - Karolinska Institute

10:30 - 10:45 am
Neurochemistry and networks in normal aging
- William Jagust, PhD - University of California, Berkeley

10:45 – 11 am
Interactions between aging and genetic effects: A genomic approach to neuromodulation of memory and reward processing
- Shu-Chen Li, PhD, Irene Nagel, Dorothea Hämmerer, Hauke Heekeren, Lars Bäckman and Ulman Lindenberger, Max Planck Institute

11 - 11:15 am
Imaging beta amyloid in normal aging and dementia
- Michael Devous, PhD – UT Southwestern Medical Center

11:15 - 11:30 am
Impact of amyloid pathology on memory network activity in cognitive aging
- Reisa Sperling, MD - Massachusetts General and Harvard University

11:30 - 11:45 am
Endophenotypes of aging and dementia
- Ramon Diaz-Arrastia, MD, PhD – UT Southwestern Medical Center

11:45 – 12 pm
MRI measures of brain integrity and their relation to processing speed in the elderly
- Howard J Aizenstein ab, Vijay K Venkatraman b, Anne Newman ab, Caterina Rosano cd
  a Dept. of Bioengineering, University of Pittsburgh
  b Dept. of Psychiatry, University of Pittsburgh
  c Dept. of Epidemiology, University of Pittsburgh
  d Center for Aging and Population Health, University of Pittsburgh
INTERVENTIONS
Moderator: JENNIFER LODI-SMITH, PhD

1:30 - 1:45 pm
Why CRUNCH matters: Compensation-related utilization of neural circuits, aging, and intervention
- Patricia Reuter-Lorenz, PhD - University of Michigan

1:45 – 2 pm
A brain based approach to enhancing executive control in healthy aging
- Gary Turner, PhD ab, Anthony J. W. Chen MD acde, Tatjana Novakovic-Apopian PhD cdef and Mark D’Esposito MD ac

a University of California, Berkeley
b Sunnybrook Health Sciences Center, Toronto
c Veteran’s Administration Northern California Health Care System, Martinez, California
d University of California, San Francisco
e Veteran’s Administration Medical Center, San Francisco
def California Pacific Regional Rehabilitation Center

2 – 2:15 pm
Exercise improving cardiovascular health - Impact on brain aging?
- Rong Zhang, PhD - UT Southwestern Medical Center

2:15 - 2:30 pm
Contributions of physical activity and risk for Alzheimer’s disease to semantic memory networks in healthy elders
- Kristy Nielson ab, J. Carson Smith c, John Woodard d, Michael Seidenberg e, Nathan Hantk fe, Alissa Butts fe, Sally Durgerian b, Leslie Guidotti fe, Piero Antuono b and Stephen Rao f

a Marquette University
b Medical College of Wisconsin
c University of Wisconsin-Milwaukee
d Wayne State University
e Rosalind Franklin University of Medicine and Science
f Cleveland Clinic

2:30 - 2:45 pm
Memory Training: Encoding and individual differences
- Cindy Lustig, PhD - University of Michigan

2:45 – 3 pm
Cognitive reserve: From theory to Intervention
- Yaakov Stern, PhD - Columbia University

3 - 3:15 pm
Wrap-up
POSTER SESSION 1:
SUNDAY, JANUARY 31, 2010

Posters can be viewed during lunch from 12 p.m. to 1:30 p.m.

Structural Imaging

A-1
Brain structure comparisons between healthy American and Chinese Singaporean young and old adults
- Michael W.L. Chee, PhD a, Hui Zheng a, Sam KY Sim a,
  Karren HM Chen b, Andy Hebrank b, Joshua O Goh c,
  Blair Flicker b, and Denise C Park, PhD b

a Duke-NUS Graduate Medical School Singapore
b UT Dallas, Center for Vital Longevity
c University of Illinois at Urbana-Champaign

A-2
Cognitive function and brain structure correlations in healthy elderly East Asians
- Michael W. L. Chee, PhD, Karren H. M. Chen, Hui Zheng, Karen P. L. Chan, Vivian Isaac, Sam K. Y. Sim, Lisa Y. M. Chuah,
  Maria Schuchinsky, Bruce Fischl, and Tze Pin Ng,
  Duke-NUS Graduate Medical School Singapore

A-3
Accounting for Age Group Differences in White Matter Integrity
- Ilana J. Bennett, Michael A. Motes, Neena K. Rao and Bart Rypma, UT Dallas

A-4
Is structural deterioration responsible for functional differences in the aging brain?
- Grégoria Kalpouzos, PhD, and Lars Nyberg, PhD, Umea University

A-5
A Combined Effect of Elevated Pulse Pressure and ApoE e4 Genotype on Recognition Memory
- Andrew R. Bender and Naftali Raz, Wayne State University

METHODS

A-6
Labeling quantitative perfusion mapping in aging using pulsed arterial spin labeling
- Jean Chen, Harvard University, Massachusetts General

A-7
Functional consequences of BOLD variability with age
- Douglas Garrett, Rotman Institute, University of Toronto

LONG-TERM MEMORY

A-8
The Role of Hippocampal Volume in Age-Related Activation Patterns in a Subsequent Memory Paradigm: Preliminary Findings from the DLBS
- Kristen M. Kennedy PhD, Karen M. Rodrigue PhD, Andrew Hebrank, Gérard N. Bischof, Denise C. Park, PhD, UT Dallas, Center for Vital Longevity
Effects of semantic versus self-reference encoding on source memory
- Erik Leshikar, PhD, Georgia Institute of Technology

Neurobiological differences in ill Gulf War veterans give rise to atypical patterns of aging in episodic memory
- Crystal Cortes, Emily Farris, Joshua Arduengo, James Bartlett, and Timothy Odegard, UT Arlington

Aging Reduces Fusiform Selectivity for Face Representations
- Joshua O Goh, Atsunobu Suzuki, Denise C Park, PhD
  a University of Illinois at Urbana-Champaign
  b UT Dallas, Center for Vital Longevity
  c University of Tokyo

You can’t have it both ways: Resolving between task competition in a task-switching paradigm
- Mary K. Askren, University of Michigan

Dynamics of frontal attention networks in healthy normal aging
- James Z. Chadick and Adam Gazzaley, MD, PhD,
  University of California, San Francisco

Executive control function, brain activation and white matter hyperintensities in older adults
- Vijay K. Venkatramana, Howard Aizenstein, Jack Guralnik, Anne B. Newman, Nancy W. Glynn, Christopher Taylor, Stephanie Studenski, Lenore Launer, Marco Pahor, Jeff Williamson, Caterina Rosano
  a Department of Bioengineering, School of Engineering, University of Pittsburgh
  b Department of Psychiatry, University of Pittsburgh
  c National Institute on Aging, Laboratory of Epidemiology, Demography, and Biometry, Department of Epidemiology,
  d Graduate School of Public Health, University of Pittsburgh
  e Division of Geriatric Medicine, Department of Medicine, University of Pittsburgh
  f Department of Aging and Geriatric Research, University of Florida—Institute on Aging
  g Department of Internal Medicine, Section on Gerontology and Geriatric Medicine, Wake Forest University

Task-independent and Task-specific Age Effects on Cognitive Control
- Chih-Mao Huang and Denise C Park, PhD
  a University of Illinois at Urbana-Champaign
  b UT Dallas, Center for Vital Longevity
A-16
The cognitive, functional, and structural architecture of cross-hemispheric communication in younger and older adults
- Simon Davis, Duke University

A-17
Modulation of the default network in older and younger adults
- Brian Gordon, PhD, University of Illinois at Urbana-Champaign

A-18
Sustained engagement of the default network during successful repetitive encoding is related to increased amyloid deposition in cognitively normal older adults
- Patrizia Vannini, PhD, Harvard Medical School, Massachusetts General Hospital

A-19
Dallas Lifespan Brain Study: Neuroimaging and Cognition across the Lifespan - Overview and Initial Findings
- UT Dallas, Center for Vital Longevity, Denise C. Park, PhD (principal investigator)

INTERVENTIONS

A-20
The effects of associative processing and encoding training on veridical and false memories
- Kristin E. Flegal, Cindy Lustig and Patricia A. Reuter-Lorenz, University of Michigan

A-21
Synapse: Actively Engaging the Aging Mind
- Jennifer Lodi-Smith, PhD, postdoctoral fellow, UT Dallas, Center for Vital Longevity

POSTER SESSION 2:
MONDAY, FEBRUARY 1, 2010

Posters can be viewed during lunch from 12 p.m. to 1:30 p.m.

SOCIAL COGNITION

B-1
Medial cortex activity associated with self-referential thinking: An age-group comparison
- Natalie C. Ebner, PhD, Matthew R. Johnson, Sebastian Gluth, Carol L. Raye and Marcia K. Johnson, PhD, Yale University

B-2
Short-term and long-term collaboration benefits on later individual recall in younger and older adults
- Helena Blumen, PhD, Columbia University

B-3
Increased automatic control in healthy elderly: Evidence for the positive affective bias in aging
- Sanda Dolcos, Ekaterina Ninova, Keen Sung, Roger A. Dixon and Florin Dolcos, University of Alberta
Electrophysiological indicators of lifespan differences in the monitoring of and learning from choice outcomes
- Dorothea Hämmerer, PhD, Guido Biele, Marios Philiastides, Sacha Schroeder, Viktor Müller, Ulman Lindenberger, PhD, and Shu-Chen Li, PhD, Max Planck Institute

Aging and social decision-making: Older adults behave differently in the ultimatum game
- Beadle, J. N., Kovach, C., Paradiso, S., Polgreen, L., and Tranel, D.
  
  a Departments of Psychiatry and Neurology and Neuroscience Graduate Program, University of Iowa
  b Department of Pharmacy, University of Iowa

The cognitive neuroscience of autobiographical planning: Implications for aging
- Nathan Spreng, PhD, Harvard University

Personality & Cognition in Older Adulthood
- Jennifer Lodi-Smith, PhD, postdoctoral fellow, UT Dallas, Center for Vital Longevity

Limited neurogenesis in the human hippocampus: Implications for Alzheimer’s Disease
- Ira Driscoll, NIA/NIH

The influence of Alzheimer’s Disease risk on resting state functional connectivity in healthy elders and those with Mild Cognitive Impairment
- Alissa Butts, Sally Durgerian, Nathan Hantkea, Melissa Lancaster, John Woodard, Michael Seidenberg, Piero Antuono, Erik Beall, Mark Lowe, Stephen Rao, Kristy Nielson
  
  a Marquette University
  b Medical College of Wisconsin
  c Rosalind Franklin University of Medicine and Science
  d Wayne State University
  e Cleveland Clinic

Effects of ApoE genotype and fibrillar amyloid on glucose metabolism and episodic memory in normal aging
- Elizabeth Mormino, PhD, University of California, Berkeley

Multiplex Plasma Biomarker Panel in Alzheimer’s Disease: Assessment of Criterion Validity
- Guanhua Xiao, Sid O’Bryant, Ralph McDade, Joan Reisch, Valory Pavlik, Robert Barber, Ramon Diaz-Arrastia
  
  a UT Southwestern Medical Center
  b Texas Tech University Health Sciences Center
  c Rules Based Medicine, Inc.
  d Baylor College of Medicine
B-12
No title available
- Michael Devous group, UT Southwestern Medical Center

B-13
Decreased inter-regional relationships among D1 receptors in aging
- Anna Rieckmann a, Sari Karlsson a, Per Karlsson a, Yvonne Brehmer a, Lars Farde a, Lars Nyberg b, Lars Bäckman a

a Aging Research Center, Karolinska Institute
b Umea University

B-14
Disruption of Functional Connectivity in Clinically Normal Older Adults with High Amyloid Burden
- Koene R. A. Van Dijk a, Trey Hedden ab, J. Alex Becker b, Angel Mehta a, Reisa A. Sperling ac, Keith A. Johnson bcg and Randy L. Buckner abdf

a Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital
Departments of b Radiology, cNeurology and d Psychiatry, Massachusetts General Hospital, Harvard Medical School
c Department of Psychology and Center for Brain Science, Harvard University
d Howard Hughes Medical Institute at Harvard University
e Department of Neurology, Brigham and Women’s Hospital, Harvard Medical School

B-15
Increased metabolic stress with aging
- Feng Xu, UT Southwestern Medical Center

B-16
CBF-CMR02 coupling differentially drives BOLD responses in younger and older visual cortex
- Joanna Hutchison ab, Mary Jo Maciejewski ab, G. Andrew Hillis a, Lee Jordan a, Traci Sandoval t, Hanzhang Lu b and Bart Rypma ab

a UT Dallas
b UT Southwestern Medical Center