



The BRAINet SYNAPSE

BRAINet is a friends group of the OHSU Brain Institute (OBI) that helps build community awareness, interest, and support for neuroscience research at OHSU.

BRAINet Synapse Newsletter

December 2016

President's Message

*By Helen Richardson,
BRAINet President*

Dear BRAINet Members,

Holiday season is upon us once again. There are numerous articles in newspapers, magazines and on the web giving us advice about the holidays – how to best prepare our turkey for Thanksgiving, what gifts are this year's most desirable, how to handle the season's stress, and so on. Taking a page from Ann Landers, who some of you may recall, I would wish for you to "be yourself." There's evidence that the 'shoulds' we tell ourselves lead to much of the stress we experience. So enjoy the holidays in the way that makes them meaningful and pleasurable to you and join me in looking forward to a happy New Year.

Best Regards,

*Helen Richardson,
President*



December Lecture Luncheon

This month we will have our lecture luncheon on the *second* Monday so as to avoid the holiday flurry. Join

us on **Monday, December 12, at 11:30 a.m.** at the Multnomah Athletic Club for a lecture



from Dr. Sarah Karalunas on "*Consistently Inconsistent: Emotional, Cognitive, and Neurobiological Variability in ADHD.*"

**11:30 Registration and Lunch Served
12:00-1:00 Lecture**

To register and pre-pay to secure your reservation (you can renew your membership at the same time!), please visit:

<https://goo.gl/9PZJdN>

Registration will close at midnight on Wednesday, December 7.

This month we will be served Grilled Salmon.

Brain in the News

by George Ivan Smith, BRAINet member

The most common learning disability - persistent, unexplained difficulties in reading (developmental dyslexia) - affects about 10 percent of US children. "Targeting Dyslexia" by Carl Sherman (Dana Foundation, 9-27-16) discusses two recent studies seeking to find the causes.

Most studies have involved older children and adults and don't tell whether the dyslexia is the cause or the consequence of poor reading. Nadine Gaab (Cerebral Cortex, 2015) used MRI with 14 infants 4-18 months of age who had a family history of dyslexia, and 18 who did not.

Researchers focused on the arcuate fasciculus (AF), a white matter tract connecting language areas in front and rear of the brain. They found the left AF was less developed in the infants at risk of dyslexia than the others.

Another study, by Zeynep Saygin (Nature Neuroscience, 2016), focused on a small area of the visual cortex essential for reading: the visual word form area (VWFA). In readers only, it responds more to the shapes of letters than to faces or drawings of objects. "It has high selectivity for orthographic stimuli," says Zeynep.

Again, however, the question VWFA raises is it a cause or consequence? Saygin and her colleagues used functional and structural MRI with 14

children at age 5 (before they learned to read) and again at age 8 after they learned to read. At age 8 but not age 5, the VWFA responded selectively to letters.

While part of the brain appears pre-wired for reading, it doesn't provide direct evidence that it causes dyslexia. As in most research, more is still needed.

Elections: Follow-Up

At the November Lecture Luncheon, we re-elected our Officers without dissent.

We forgot, however, to vote on the re-election of our members-at-large. At the beginning of the December luncheon, we will take a few moments to vote for the following individuals as board members-at-large:

Ellyn Arwood

Michael Campbell

Jim Cereghino

Nancy DeGraw

Kathryn Hansman-Spice

Roger Meyer

Patsy O'Shea

Wayne Schweinfest

Vacant

Note that there is one vacant position – we would love to have your insight and participation with the board!

Holiday Travel Tips

As the holidays approach, many of us look forward to traveling to visit friends and family. Many families wonder about traveling with family members with dementia. Here are some tips.

1. Plan your trip carefully. If flying, give yourself extra time at the airport to avoid stress. The airports can be busy and overwhelming over the holidays, so pace yourselves. Give yourself a cushion of time for extra bathroom and meal breaks. Consider asking for a wheelchair (even if your companion can walk). With a wheelchair, you may be able to get closer to the front of the TSA security line, thus reducing stress for both of you.



2. Tell your hostess and host about your situation. Close friends and family members such as daughters and sons will be able to tell that your companion is having memory trouble. It can be very stressful for them if they don't understand the

situation. They can be supportive of you if they know about the dementia.

3. Stay on schedule. If you can, try to keep on your home schedule and get plenty of sleep.

4. Consider signing up with the Safe Return Program through the Alzheimer's Association (alz.org). Those with dementia may wander during travel. Safe Return can provide some reassurance for all of you.

5. Plan for time to re-adjust back home. You may be looking forward to getting home so you can relax, but often the return can be stressful too. Ask friends to make a casserole for you, turn the lights on and turn up the heat in your house so it feels welcoming to both of you when you return.

6. If the trip feels too stressful for you, cancel it. Your gut feeling is probably right. Ask your family member's health care provider to help with the decision or support. Sometimes advice or a letter from the provider can smooth hard feelings when you have to cancel.

Remember, pace yourself, get plenty of rest, and prepare for a pleasant homecoming. For more guidance, or to review these tips, visit the Alzheimer's Association's website: www.alz.org or call their helpline: 1-800-272-3900.

Brain Awareness Season is upon us!

Visit the [Brain Awareness website](#) for information on how to purchase tickets to our 2017 lectures.

The Criminal Brain



MARCH 20

Octavio Choi, M.D., Ph.D.

Director, Forensic Evaluation Service, Oregon State Hospital
Assistant Professor of Psychiatry, Oregon Health & Science University

Touch: The Science of Hand, Heart and Mind



MARCH 27

David Linden, Ph.D.

Professor of Neuroscience, the Solomon H. Snyder Department of Neuroscience, Johns Hopkins University School of Medicine

Sleep, Memory and Dreams: Putting it all together



APRIL 4

Robert Stickgold, Ph.D.

Associate Professor of Psychiatry, Harvard Medical School
Director, Center for Sleep and Cognition
Associate Professor, Department of Psychiatry, Beth Israel

Deaconess Medical Center

BRAINet Contacts:

Kate Stout – Program Coordinator
503.494.0885 stoutk@ohsu.edu

Helen Richardson – President of BRAINet
gsgam@comcast.net

Nancy DeGraw – Membership Chair
njdegraw@msn.com



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