



# 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**

**February 2017**

## President's Message

*By Helen Richardson,  
BRAINet President*

Greetings BRAINet Members.

This month I have a request of you. Your Board members have heard from BRAINet members that you enjoy the lecture summaries we have included in The Synapse for several years. While your Board members have been happy to provide these notes, we are no longer able to do so consistently. Therefore, we are reaching out to you, our members, to request your assistance. If several BRAINet members were interested in sharing this responsibility with Board members, we would be able to continue the practice of including lecture summaries in The Synapse. If you are someone who is willing to take on the task of summarizing luncheon lectures from time to time, please contact Kate Stout at [stoutk@ohsu.edu](mailto:stoutk@ohsu.edu).

Thank you for your continued involvement with and support of disseminating the latest information about the brain through BRAINet in support of the OHSU Brain Institute's researchers.

Best regards,  
*Helen Richardson, President*

## January Lecture Luncheon Summary

### **The Neurobiology of Happiness**

By Tarvez Tucker, M.D.

Dr. Tucker gave us an entertaining and informative look at what she's learned about happiness as a neurointestivist. From brain chemicals to neuronal circuits of reward to gut hormones, Dr. Tucker provided a broad overview of what the research says about perceptions of happiness. Most importantly, she gave us five strategies to happiness:

- 1) Write your mentor a letter. Deliver it in person and read it aloud.
- 2) Read and re-read a good book early Saturday morning in bed.
- 3) Buy something for someone else for no special occasion.
- 4) Don't compare yourself to others.
- 5) Concentrate and appreciate one good friend you've known the longest.

She ended her lecture with a touching quote from the actor Robin Williams:

*"Take my hand. Are you scared? Maybe together we can find a few laughs along the way."*

## February Lecture Luncheon

Our lecture luncheon will be on



**Monday, February 20, at 11:30 a.m.**

at the Multnomah Athletic Club. Dr. Peter Spencer will discuss

*“Mysterious*

*Epidemics of Nods and Fits in East African Children.”* Dr. Spencer is a professor of neurology in OHSU’s School of Medicine, and the founding director of the OHSU Global Health Center.

**11:30 Registration and Lunch Served**

**12:00-1:00 Lecture**

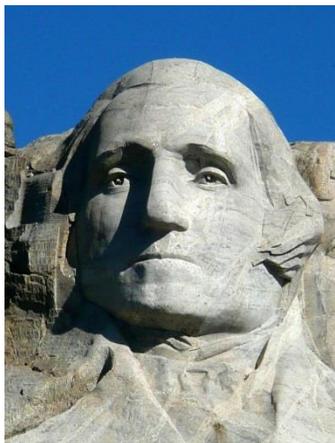
To register and pre-pay to secure your reservation (you can renew your membership at the same time!), please visit:

<https://goo.gl/nc0Eil>

Registration will close at midnight on Wednesday, February 15.

*This month we will be served Pan-Fried Trout with Hazelnut Chimichurri.*

Please note that this date is President’s Day.



## Brain in the News:

### Spatial Navigation

*by George Ivan Smith, BRAINet member*

British researchers used a virtual reality game, Sea Hero Quest, in one of the largest psychology experiments ever conducted online, according to Moheb Costandi, Dec. 1, 2016, in Dana.org News.

They reported their surprising results at the 46<sup>th</sup> annual meeting of the Society for Neuroscience. They found spatial navigation ability declines with age, differs between women and men, and among people in different countries. And the game might be developed as a clinical tool to diagnose early stage Alzheimer's.

Hugo Spiers, Univ. College, London, who led the study, said they got 2.4 million downloads in four months.

The game's tasks test three navigational abilities: way-finding (how we orient ourselves), path integration (how we estimate distance and direction) and working spatial memory (while we move around), with >75 levels of increasing difficulty, plus nine optional questions that collect demographic data.

In early adulthood, spatial navigation abilities begin to decline, and steadily continue declining. Memory remains relatively intact until 60s, then start declining. Path integration ability begins steady decline around age 20.

Most surprising, researchers found that spatial navigation abilities differ among people who live in different countries. “Our data clearly show Nordic countries have the best navigators. And we'd really like to know why,” said Spiers.

Mapping changes in spatial navigation across time may help in diagnosing Alzheimer's at its early stages. Spatial disorientation is one of the earliest signs of the disease as seen by early-stage patients commonly wandering outside late at night and getting lost.

[http://www.dana.org/News/Mapping\\_Spatial\\_Navigation\\_Abilities/](http://www.dana.org/News/Mapping_Spatial_Navigation_Abilities/)

## Volunteer Opportunities for Members

We have several interesting events coming up this spring. BRAINet members are invited to participate for free as volunteers helping to check in registrants, provide information about BRAINet, and act as information portals. Please contact Kate Stout ([stoutk@ohsu.edu](mailto:stoutk@ohsu.edu)) if you are interested. There are limited spaces available.

### Brain Awareness Season: Brain Fair

Saturday, March 11, OMSI

9:00 a.m. – 5:00 p.m. (shifts available)

- Staff the informational table.
- Staff the BRAINet table.
- Interact with the kids!

### Brain Awareness Season: Teacher Workshop

Saturday, March 18, Collaborative Life Science Building, South Waterfront

8:00 a.m. – 1:00 p.m. (shifts available)

- Staff the informational table.
- Check-in registrants.
- Free lunch!

### Brain Awareness Season Lecture Series

(see the following page for dates), Newmark Theatre

5:30 p.m. – 8:30 p.m.

- Staff the BRAINet, OBI, book and chocolate sales tables.
- Act as informational portal for registrants and other volunteers.
- Attend the lectures for free!



**VOLUNTEER**



## 2017 Brain Awareness 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

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