

# Winter 2013 Newsletter



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## Primary Progressive Aphasia: Studies at Northwestern

### What is PPA?

PPA is a form of cognitive impairment that involves a progressive loss of language function through degeneration in the language parts of the brain. It begins gradually and may start off with difficulty recalling common words while speaking or writing. Over time, PPA progressively worsens to a point where verbal communication and the ability to understand what others are saying is very difficult.

People with PPA may experience a variety of different language symptoms, although no two cases are exactly alike. Those afflicted with PPA tend to have similar clusters of symptoms, which have helped to create three different subtypes: Agrammatic (reduced/effortful speech with word-order and word-production problems), Logopenic (fluent speech with word-finding difficulties), and Semantic (problems understanding word-meaning).

The Northwestern University Primary Progressive Aphasia (PPA) study involves three full days of testing, two of which take place in Chicago and involve neuropsychological testing, magnetic resonance imaging (MRI) scans, and an event-related potentials (ERP) task. On the third day, patients visit our lab in Evanston and participate in a variety of language experiments involving voice recording, eyetracking, and ERP testing. Patients are asked to return two years after initial testing to compare changes between the two visits. The results of this study will be used to accomplish three goals: 1) to understand the nature of language impairments and how they decline in PPA, 2) to investigate how changes in language ability relate to changes in the brain, and 3) to increase awareness of PPA by educating others about this unique disorder and encourage more research so that treatments can be developed.

### Please update your contact info:

If your mailing address, email address, or phone number has changed within the past year, let us know so that we can update our records.

Please contact Sarah Dove at 847-467-7591 or email [sarah.dove@northwestern.edu](mailto:sarah.dove@northwestern.edu).

## Current Studies

The ANR lab is currently seeking interested participants for a few of our ongoing studies. Among these studies is a treatment study focusing on improving comprehension and production of complex sentences. In addition to language testing, this study features a neuro component using fMRI scans to evaluate changes in the brain throughout treatment.

In a separate study, we are examining language learning and aphasia. In this study, we look at how people learn things about a new language simply by listening to it, as well as the difference between remembering visual images

compared to words and sentences.

Another project we are working on involves examining the relationship between the size and location of an individual's brain lesion and patterns of language deficits based on language testing scores. For this project, we are looking for participants with either fluent or non-fluent aphasia who are willing to undergo a few hours of behavioral language testing, as well as an fMRI scan.

If you are interested in becoming a participant in any of these studies, please contact Sarah Dove at 847-467-7591 or [sarah.dove@northwestern.edu](mailto:sarah.dove@northwestern.edu).

## 2013 AAAS Meeting Features Special Presentation

This year's AAAS (American Association for the Advancement of Science) meeting features a series of special presentations. One session, titled *Teaching the Brain to Speak Again: New Frontiers in Trauma and Stroke Recovery*, will spotlight

research on brain function and plasticity. Speakers include Dr. Julius Fridriksson from the University of South Carolina, Dr. Sheila Blumstein from Brown University, and our very own Dr. Cynthia Thompson.

# Community and Current Events

## COMMUNITY EVENTS:

### 2013 Chicago Travel and Adventure Show

(Jan. 26-27 at the Donald E. Stephens Convention Center)

The Travel and Adventure Show returns to Chicago for 2013 with exciting attractions and activities. Scuba dive, ride a camel, taste international cuisine and see flamboyant dance performances. You can attend inspirational travel seminars with Rick Steves about Europe and Patricia Shultz about "1,000 Places To See Before You Die." Plus, Sea World will present an incredible new Antarctic exhibit complete with your favorite arctic animals! More than 150 exhibitors from around the world will also be at your service, presenting everything from weekend getaways to dream escapes. Tickets: \$9 online (with Promo Code: CHPR) or \$15 at the Door. Kids 16 years old and under are free of charge.

### 2013 Chicago Auto Show

(Feb. 9-18 at McCormick Place, 2301 S Lake Shore Drive)

First staged in 1901, the Chicago Auto Show is the largest auto show in North America. The Chicago Auto Show utilizes more than 1 million square feet of the McCormick Place complex and will display over 1,000 vehicles. Tickets: \$12 for adults, \$6 for seniors age 62+ and children age 7-12, free for children under age 6.

### Handmade Market Chicago

(2nd Saturday of each month, 12pm-4pm at The Empty Bottle, 1035 N. Western Ave)

Handmade Market is a unique event to connect the makers of beautiful things to people who appreciate the unique and handmade. There will be 33 fabulous sellers at the market selling jewelry, purses, knitted items, clothing, paper crafts, and more! Free to the public.

### Evanston Symphony Orchestra: Slavic Favorites

(Sunday, March 3rd @ 2:30pm at the Pick-Staiger Concert Hall, 50 Arts Circle Drive)

The pomp and pageantry of Imperial Russia was centered in Saint Petersburg, which saw the premieres of both Glinka's overture, the earliest Russian work performed today, and Tchaikovsky's passionate Fifth Symphony, a summit of Slavic music. Dvořák's tuneful Violin Concerto will feature Romanian-born Irina Muresanu. Tickets in advance: \$28 for adults, \$23 for seniors, free for children 12 and under. Box Office Sales: \$35 for adults, \$30 for seniors, free for children under 12, \$5 for students with ID.



## IN THE NEWS:

### ***A vegetative man has been able to talk to his doctors***

through MRI communication. Through fMRI scans, the 39-year-old man has been able to respond to physicians and tell them that he's not in pain. (Visit <http://news.yahoo.com/blogs/sideshow/vegetative-man-tells-doctors-m-not-pain-via-020801923.html> for the full story)

***A woman underwent an "awake craniotomy" procedure to remove two brain tumors that were contributing to seizures and right-side weakness. During the surgery, the 45-year-old woman responded to doctors' requests, such as reciting the months of the year, wiggling her fingers, smiling, and touching her nose. After the surgery, she experienced speech deficits and was unable to open her right eye, however she regained these abilities with rehabilitation therapy.*** (<http://www.sfgate.com/news/article/Woman-comes-back-after-wide-awake-brain-surgery-4104351.php>)

***Childhood hunger buffers against the loss of mental functioning*** in old age according to recent findings. (For the whole story, visit <http://news.discovery.com/human/childhood-adversity-may-boost-elderly-brain->

[health-for-some-121210.html](http://health-for-some-121210.html))

***Scientists have found a way to make brain cells from urine.*** The technique involves using ordinary cells discarded in urine to create brain precursor cells that can potentially be used in treating disorders such as Autism, Alzheimer's, and Parkinson's Disease. (For more info, visit <http://www.nature.com/news/brain-cells-made-from-urine-1.11985>)

***Exercising outdoors in an urban environment is bad for your brain*** according to a recent research study. The Belgium study found that individuals who exercised in urban areas scored lower on cognitive tests than those that exercised in rural areas. (More at <http://www.blistree.com/2012/12/10/move/city-running-exercise-air-pollution/>)

***Eating chocolate is linked to better cognitive function*** and may protect the brain from stroke. Researchers attribute the health benefits to flavonoids, which may decrease bad cholesterol and lower blood pressure. (See more at: <http://www.brecorder.com/pakistan/general-news/94866-chocolate-may-protect-brain-from-stroke.html>)

**People to Know & Support Group Info**

**POSTDOCTORAL FELLOWS**

**Dr. Jennifer Mack**

Jennifer Mack is a research associate in the Aphasia Lab at Northwestern University, and has been part of the lab for the past two years as a post-doctoral fellow. She grew up in a suburb of Milwaukee and is happy to be back in the Midwest. She went to college at Rice University in Houston, Texas, where she received a Bachelor's degree in Linguistics, and then moved to New Haven, Connecticut for her PhD, also in Linguistics, at Yale University. Before joining the Aphasia Lab, Jennie was a postdoctoral fellow in Psychology and Linguistics at the University of Massachusetts-Amherst. Jennie is especially interested in how word-level and sentence-level processes contribute to language impairments in aphasia, including primary progressive aphasia (PPA), and how understanding these processes can better lead to improved treatment options for aphasia. She enjoys cooking, reading, going to dance performances, and taking walks around her neighborhood. She lives in Highland Park with her partner, Yael, and their two guinea pigs.



**Dr. Elena Barbieri**

Elena Barbieri is a post-doctoral fellow who has recently joined the Aphasia and Neurolinguistics Research Laboratory and the CNADC at Northwestern University. She grew up in Milan (Italy), and studied at University of Milano-Bicocca, where she obtained a Bachelor degree in Psychology, a Master Degree in Clinical Neuropsychology, and then a PhD in Cognitive Neuroscience. During her studies, she developed a specific interest in aphasia and the way written and spoken language are processed in the brain. She has always pursued her passion for Clinical Neuropsychology: after her internship, she passed the board examination becoming a Clinical Psychologist in Italy. She is currently pursuing both her interests by working on studies that aim to better understand language processing and to improve the recovery patterns in aphasia. Moreover, she is developing skills in the assessment and diagnosis of people with cognitive impairment at the Neurobehavior and Memory Clinic of the CNADC, where she is working toward her US certification in Clinical Psychology. Despite being pretty busy, she finds time for the activities that she enjoys, which tend to involve more food than physical exercise: she likes cooking (pretty obvious, she's Italian!), going to parties, and spending time with friends. She lives in Lakeview, with her roommate, Francesca.



**PREVIOUS MEETINGS:**

**SEPTEMBER:**

In the September meeting, the new co-leaders Jim Kloet and Ellen Fitzmorris introduced themselves, and the group got to request discussion topics and activities for future support groups. If you have an idea or request, you can email Ellen or Jim at: [efitzmo@gmail.com](mailto:efitzmo@gmail.com) and [jim.kloet@gmail.com](mailto:jim.kloet@gmail.com).

**OCTOBER:**

In October, with the election coming up, we watched a clip of former House Senator Gabriel Giffords speak the Pledge of Allegiance at the opening ceremony of the Democratic National Convention. Gabby Giffords developed aphasia after being shot in the head last year, and is recovering well. The group discussed the importance of raising awareness of aphasia, and how her speaking at the DNC helped or hindered this cause.

**NOVEMBER:**

In November, we watched and discussed the autobiographical movie "Aphasia: Hope is a Four-Letter Word", starring Carl McIntyre, who has Broca's aphasia. Carl was a career actor for several years before suffering a stroke. He returned to acting with this movie. Group members shared ways in which the movie resonated with them. We also discussed the importance of doing enjoyable activities that do not require speech, in addition to practicing language.

**DECEMBER:**

At our annual holiday party in December, guests brought lots of delicious treats to share. We listened to jazz music, talked about our travels in the past, and shared our plans for the upcoming holidays.

**UPCOMING MEETINGS:**

- February 9<sup>th</sup>
- March 9<sup>th</sup>
- April 13<sup>th</sup>
- May 11<sup>th</sup>

**PUBLIC TRANSPORTATION:**

The lab is located three blocks east of the Noyes Stop on the Purple Line.

CTA: 1-888-968-7282  
[www.transitchicago.com](http://www.transitchicago.com)

RTA: 1-312-836-7000  
[www.rtachicago.com](http://www.rtachicago.com)

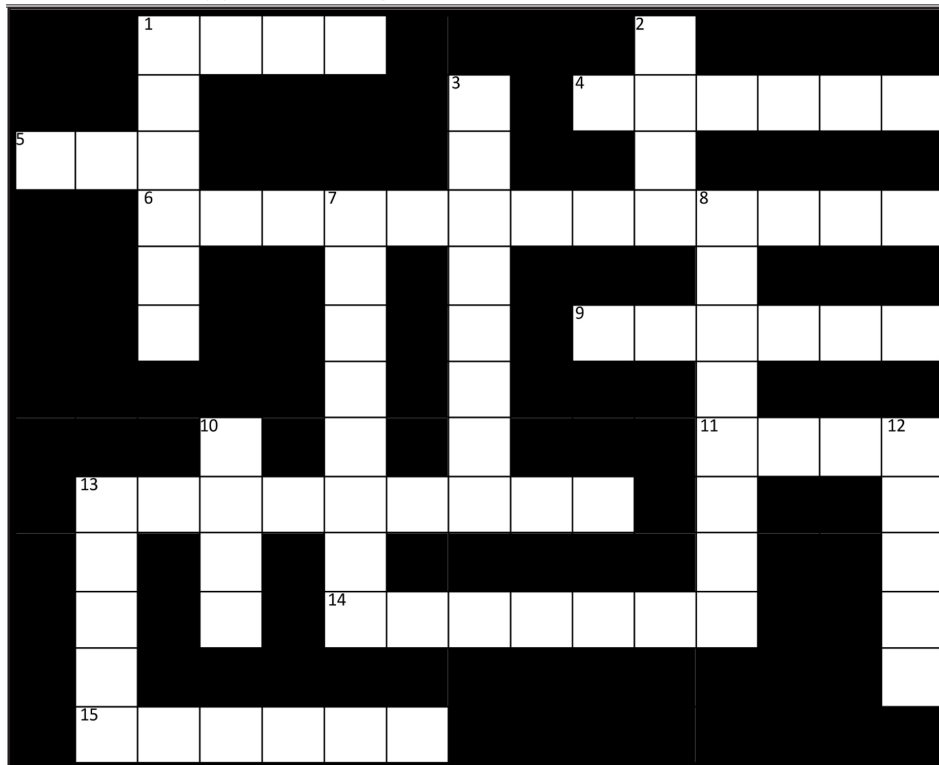
**Interested in telling your story?**

We'd like to know!

If you would like to be featured in an upcoming ANRL newsletter, please contact Jim or Ellen at 847-467-7591.




# Activities Corner

## WINTER CROSSWORD PUZZLE




### CLUES

#### Across:

- 1.  11. This machine clears snow off of the roads.
- 4. Another word for "glove".
- 5.  13. 
- 6. A holiday in mid-February.
- 9. An ice formation often seen hanging on house gutters or other ledges.

#### Down:

- 7. Headgear worn to keep ears warm
- 8. 
- 10. The opposite of "hot".
- 12. The color of snow.

## WINTER BOGGLE GAME

### Rules:

- \* The letters in the words must be connected to each other.
- \* The word doesn't have to appear in a straight line. It can be bent around corners or read diagonally.
- \* Each letter in the word must uniquely appear in the grid. For example, if the word is ERASE, the letter E must appear twice in the grid. The word can't just loop back and re-use the same E.
- \* Words must be at least 3 letters long
- \* Words cannot be a proper noun, such as a name or place.

H	S	D	L	C
V	O	U	O	F
E	R	R	S	E
P	L	O	I	N
O	S	K	W	O

What words can you find?

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____