

# Rehabilitation of speech and language in primary progressive aphasia

<https://www.neurodegenerationresearch.eu/survey/rehabilitation-of-speech-and-language-in-primary-progressive-aphasia/>

## Principal Investigators

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### Country

USA

## Title of project or programme

Rehabilitation of speech and language in primary progressive aphasia

## Source of funding information

NIH (NIA)

## Total sum awarded (Euro)

€ 518,137.61

## Start date of award

01/07/2014

## Total duration of award in years

3

## The project/programme is most relevant to:

Alzheimer's disease & other dementias

## Keywords

Primary Progressive Aphasia, Speech, Rehabilitation therapy, Language, lexical retrieval

## Research Abstract

DESCRIPTION (provided by applicant): Primary progressive aphasia (PPA) is a gradual decline in communication ability caused by neurodegeneration of brain regions that support speech and

language. PPA is a devastating condition that can affect adults as young as their 50's, depriving them of the ability to communicate and function in society. In the past decade, the cognitive and neural bases of PPA have been well characterized and three main variants have been identified. Based on this body of work, we are now poised to investigate behavioral treatments that are grounded in modern cognitive and neuroanatomical concepts. Research into effective modes of behavioral treatment is greatly needed in order to establish best clinical practices in this unique patient population. The long-term objectives of this project are to provide evidence-based treatment methods addressing the specific cognitive-linguistic profiles of each of the three variants of PPA. Our treatment approach is designed to capitalize on spared cognitive functions that are associated with preserved anatomical circuits in each PPA syndrome. Within this framework, we will apply modern neuroimaging techniques to identify anatomical predictors of treatment success. The study has three main goals that build on the findings of our previous work: 1) to assess the value of dose modifications to a proven treatment for lexical retrieval in logopenic and semantic variants of PPA 2) to establish the efficacy of a novel treatment for syntax and speech production in nonfluent/agrammatic PPA, and 3) to determine gray and white matter predictors of response to treatment in each variant. In order to accomplish these aims, we will enroll 24 individuals with PPA, who will undergo a comprehensive multidisciplinary evaluation and neuroimaging. Subsequently, participants will be enrolled in behavioral treatment tailored to the cognitive-linguistic profile of each variant and will be followed for up to a year post-treatment in order to determine long-term effects of rehabilitation. This ambitious study and the necessary recruitment will be possible because of resources available to the project through the UCSF Memory and Aging Center, a leading institution in the field of PPA research, and its funded projects. The current study will provide fundamental evidence regarding the efficacy of rehabilitation strategies in PPA as well as the anatomical bases for recovery in the face of neurodegeneration, with the potential to improve clinical care for individuals with this debilitating condition.

### **Lay Summary**

**PUBLIC HEALTH RELEVANCE:** This project's relevance to public health stems from its efforts to provide evidence-based treatment approaches for communication impairments associated with primary progressive aphasia, a debilitating condition that causes a gradual decline in speech and language functions. The project has the potential to enhance clinical management and rehabilitation of individuals with this disorder by evaluating treatment approaches tailored to the different variants of PPA and by determining the neural predictors of responsiveness to treatment.

### **Further information available at:**

#### **Types:**

Investments > €500k

#### **Member States:**

United States of America

#### **Diseases:**

Alzheimer's disease & other dementias

#### **Years:**

2016

#### **Database Categories:**

N/A

**Database Tags:**

N/A