# Ana Alves Francisco

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Education			
2017	PhD	Social Sciences; Neuroscience Behavioural Science Institute, Radboud University, the Netherlands Dissertation: Audiovisual processing in dyslexia Advisors: Drs. James McQueen, Margriet Groen, and Alexandra Jesse	
2008	Undergraduate Degree ("Licenciatura")	Clinical Psychology, Algarve University, Portugal Thesis: The influence of imagery in false memories Advisor: Dr. Luis Faisca	
		Positions and Employment	
2019-present		Adjunct Assistant Professor, Yeshiva University (Clinical Psychology Graduate Program)	
2017-present		Post-doctoral Research Fellow, Cognitive Neurophysiology Laboratory (Drs. Sophie Molholm and John Foxe), New York, USA	
2016-2017		Research trainee, Cognitive Neurophysiology Laboratory (Drs. Sophie Molholm and John Foxe), New York, USA	
2012 (September-December)		Visiting Scholar, Departments of Cognitive Psychology (Dr. Michael Vitevitch) and Speech-Language-Hearing (Dr. Holly Storkel), the University of Kansas, USA	
2010-2013		Pre-doctoral student and research assistant, Cognitive Neuroscience Research Group, Algarve University, Portugal	
		Invited talks	

**Francisco**, **A. A.** (2021, March). 22q11.2 deletion syndrome: Cognitive and neural function. Invited talk at the National Institute of Mental Health (NIMH).

**Francisco, A.A.** (2020, January). Workshop on mixed-effects models. Invited 3-day workshop at the University of Lisbon, Portugal.

**Francisco, A.A.** (2019, November). Cognitive function in 22q11.2 Deletion Syndrome. Invited talk at the 2019 22q Texas Camp. Burton, USA.

**Francisco, A.A.** (2019, July). Cognitive function in Cystinosis: Behavioral and EEG evidence. Invited talk at the Cystinosis Research Network Family Conference. Philadelphia, USA.

**Francisco, A.A.** (2018, May). Electrophysiological markers of sensory processing in 22q11.2DS and Schizophrenia. Invited talk at the University of Geneva, Switzerland.

**Francisco, A.A.** (2018, May). Adult dyslexic readers benefit less from visual input during audiovisual speech processing. Invited talk at the Psychonomic Society Meeting, Amsterdam, the Netherlands.

**Francisco, A.A.** (2018, May). 22q11.2DS: Clinical and electrophysiological characteristics. Invited talk at the University of Lisbon, Portugal.

**Francisco**, **A.A.** (2017, November). Brain function in 22q11.2DS. Invited talk at the Children's Hospital of Philadelphia, Philadelphia, USA.

**Francisco**, **A.A.** (2017, November). Audiovisual processing in Dyslexia. Invited talk at the University of Massachusetts Amherst, USA.

**Francisco, A.A.** (2017, March). Audiovisual speech perception in adult dyslexic readers: EEG and behavioral evidence. Invited talk at the Cognitive Neurophysiology Laboratory, New York, USA.

**Francisco, A.A.** (2014, September). Audiovisual temporal sensitivity in typical and dyslexic adult readers. Invited talk at the 15th Annual Conference of the International Speech Communication Association, Singapore.

### **Publications**

### **Journal Articles**

**Francisco**, A. A., Berruti, A. S., Kaskel, F. J., Foxe, J. J., & Molholm, S. (2021). Assessing the integrity of auditory processing and sensory memory in adults with cystinosis (CTNS gene mutations). *Orphanet Journal of Rare Diseases*, 16(1), 1-10.

de Sanctis, P., Malcolm, B.R., Mabie, P., **Francisco, A.A.,** Mowrey, W., Joshi, S., Molholm, S., & Foxe, J.J. (2020). Neurophysiological markers of cognitive-motor impairment in multiple sclerosis: An EEG-based dual-task walking study. *Clinical Neurophysiology*, *13*(5), 1119-1128.

Foxe, J.J., Del Bene, V.A., Ross, L.A., Ridgway, E.M., **Francisco, A.A.**, & Molholm, S. (2020). Multisensory audiovisual processing in children with a sensory processing disorder (II): Speech Integration under noisy environmental conditions. *Frontiers in Integrative Neuroscience*, 14, 39.

**Francisco, A.A.,** Foxe, J.J., Horsthuis, D.J., DeMaio, D., & Molholm, S. (2020). Assessing auditory processing endophenotypes associated with Schizophrenia in individuals with 22q11.2 Deletion Syndrome. *Translational Psychiatry*, *10*(1), 1-11.

**Francisco, A.A.,** Foxe, J.J., Horsthuis, D.J., & Molholm, S. (2020). Electrophysiological evidence for impaired auditory sensory memory in Cystinosis despite typical sensory processing: An MMN investigation. *NeuroImage: Clinical*, 102170.

**Francisco, A. A.**, Horsthuis, D. J., Popiel, M., Foxe, J. J., & Molholm, S. (2020). Atypical response inhibition and error processing in 22q11. 2 Deletion Syndrome and Schizophrenia: Towards neuromarkers of disease progression and risk. *NeuroImage: Clinical*, 102351.

**Francisco, A.A.**, Takashima, A., McQueen, J.M., van den Bunt, M., Jesse, A., & Groen, M. (2018). Adult dyslexic readers benefit less from visual input during audiovisual speech processing: fMRI evidence. *Neuropsychologia*, 117, 454-471.

**Francisco, A. A.,** Groen, M. A., Jesse, A., & McQueen, J. M. (2017). Beyond the usual cognitive suspects: The importance of speechreading and audiovisual temporal sensitivity in reading ability. *Learning and Individual Differences*, *54*, 60-72.

**Francisco**, **A.** A., Jesse, A., Groen, M. A., & McQueen, J. M. (2017). A general audiovisual temporal processing deficit in adult readers with dyslexia. *Journal of Speech, Language, and Hearing Research*, 60, 144-158.

van den Bunt, M. R., Groen, M. A., Ito, T., **Francisco**, **A.** A., Gracco, V. L., Pugh, K. R., & Verhoeven, L. (2017). Increased Response to Altered Auditory Feedback in Dyslexia: A Weaker Sensorimotor Magnet Implied in the Phonological Deficit. *Journal of Speech, Language, and Hearing Research*, 60(3), 654-667.

Vitevitch, M.S., Storkel, H.L., **Francisco**, **A.**, Evans, K.J., & Goldstein, R. (2014). The influence of knownword frequency on the acquisition of new neighbors in adults: Evidence for exemplar representations in word learning. *Language*, *Cognition and Neuroscience*, 29(10), 1311-1316.

Bramao, I., **Francisco, A.,** Inacio, F., Faisca, L., Petersson, K.M., & Reis, A. (2012). Electrophysiological evidence for color effects on the naming of colour diagnostic and noncolour diagnostic objects. *Visual Cognition*, 20(10), 1164-1185.

Araujo, S., Inacio, F., **Francisco**, **A**., Faisca, L., Petersson, K.M., & Reis, A. (2011). Component processes subserving rapid automatized naming in dyslexic readers. *Dyslexia*, *17*, 242-255.

#### Dissertation

**Francisco A.A.** (2017). *Audiovisual processing in Dyslexia*. Doctoral Dissertation, Radboud University, the Netherlands.

### **Proceedings Papers**

**Francisco, A. A.**, Jesse, A., Groen, M. A., & McQueen, J. M. (2014). Audiovisual temporal sensitivity in typical and dyslexic adult readers. *Proceedings of the 15th Annual Conference of the International Speech Communication Association (Interspeech 2014)* (pp. 2575-2579), Singapore, Singapore.

### **Published Abstracts in Proceedings**

**Francisco, A. A.,** Horsthuis, D. J., Castillo, R. J., Foxe, J. J., & Molholm, S. (2021). Plan Ahead for Success: Inhibitory Control Deficits in Schizophrenia Start during the Planning Stages. *Biological Psychiatry*, 89(9), S309.

**Francisco**, A.A., Horsthuis, D. J., Foxe, J. J., & Molholm, S. (2019). Basic auditory processing in 22q11.2 Deletion Syndrome and its association with cognitive profile and psychotic symptomatology. *Schizophrenia Bulletin*, 45(2), S272.

Ifrah, C., **Francisco**, **A.A.**, Zemon, V., Foxe, J., & Molholm, S. (2019). 22q11.2 Deletion Syndrome: A (visual) window into Schizophrenia? *Schizophrenia Bulletin*, 45(2), S209.

**Francisco**, A.A., Horsthuis, D. J., Foxe, J. J., & Molholm, S. (2018). Executive function in Cystinosis: Behavioral and EEG evidence. *Abstracts of the 2018 International Psychonomic Society Meeting*, Amsterdam, the Netherlands.

**Francisco**, A.A., Foxe, J. J., Frey, H., & Molholm, S. (2017). Cross-prediction in ASD. *Proceedings of the International Multisensory Research Forum* 2017, Nashville, USA.

**Francisco**, A.A., Molholm, S., Behar, K., & Foxe, J. J. (2017). Executive function in Cystinosis: EEG evidence. *Abstracts of the 2017 Cystinosis Research Network Conference*, Utah, USA.

**Francisco, A. A.**, Groen, M. A., Jesse, A., & McQueen, J. M. (2015). Audiovisual processing in adult dyslexic readers: in tune but out of step. *Abstracts of the BSI Day*, Nijmegen, the Netherlands.

**Francisco, A. A.**, Groen, M. A., Jesse, A., & McQueen, J. M. (2014). Audiovisual temporal sensitivity in dyslexic adult readers, *Abstracts of the Donders Discussions*, Nijmegen, the Netherlands.

**Francisco**, A. A., Groen, M. A., Jesse, A., & McQueen, J. M. (2014). Wider audiovisual windows do not result in higher rates of McGurk fusions. *Proceedings of the 15th International Multisensory Research Forum* (p. 107), Amsterdam, the Netherlands.

Inacio, F., **Francisco**, **A**., & Faisca, L. (2014). Word learning in European Portuguese: The influences of neighborhood density and phonotactic probability. *Abstracts of 9<sup>th</sup>APPE Meeting*, Covilha, Portugal.

**Francisco, A.** & Inacio, F., & Faisca, L. (2013). The influence of phonotactic probability and neighborhood density in word learning. *Abstracts of*  $8^{th}$ *APPE Meeting*, Aveiro, Portugal.

**Francisco, A**. & Faisca, L. (2012). Bidirectional association between vocabulary and phonology? A correlational study. *Abstracts of 7<sup>th</sup>APPE Meeting*, Lisboa, Portugal.

Inacio, F. C., Araujo, S., **Francisco, A.,** Faisca, L., Petersson, K. M., & Reis, A. (2010). Understanding rapid naming deficits in dyslexia: A response time analysis. *Journal of the International Neuropsychological Society, 16, Suppl. 2, 51.* 

Awards and Grants		
2020	\$286,539	Cognitive control systems in cystinosis, Cystinosis Research Network (Co-I)
2020	\$298,412	The development of neuromarkers of cognitive dysfunction in cystinosis, Cystinosis Research Foundation (Co-I)
2015	575€	Erasmus Staff Training, Radboud University
2014	778€	Erasmus Staff Training, Radboud University
2014	3,000€	PhD Mobility Fund, Radboud University
2012	2,900€	Visiting scholar grant, Fundação para a Ciencia e a Tecnologia
2010	47,000€	Individual research grant, Fundacao para a Ciencia e a Tecnologia Cognitive Neuroscience Research Group, Algarve University
2009	1,000€	Merit Scholarship (best student award) Awarded by Algarve University

### **Professional Activities**

#### **Boards**

Scientific Advisor to the Board of Directors of the Next Generation Cystinosis, 2020-present

## Teaching

Yeshiva University, New York, USA, 2019-present

Science of Cognitive and Affective Function, graduate program in Clinical Psychology

Algarve University, Portugal, 2008-2012

Statistics tutor (teaching assistant in Statistics)

### **Student Supervision**

Ph.D. Students

Chloe Ifrah (Ferkauf Graduate School of Psychology, Yeshiva University), 2017 – 2020

Pre-thesis on visual processing in 22q11.2 Deletion Syndrome

M.Sc. students

<u>Grazia di Pisa</u> (Donders Institute for Brain, Cognition and Behaviour, Radboud University, the Netherlands), 2014 – 2015

Thesis: Audiovisual integration in dyslexic and typical readers as revealed by oscillations

Maike Garos (Pedagogical Sciences, Radboud University Nijmegen, the Netherlands), 2014 –2015

Thesis: Audiovisual benefit in typical and dyslexic children: Does it explain differences in reading and reading-related abilities?

Noor van der Windt (Pedagogical Sciences, Radboud University Nijmegen, the Netherlands), 2014 –2015 Thesis: *Audiovisual speech perception in primary and high school students with reading difficulties* 

Interns

Nerea Salgado (DACA student, Rutgers University), September 2020-present

Daliah Ross (Yeshiva University), September 2020-present

Mariana Lucas (Albert Einstein College of Medicine), summer 2018

Project: Sensory processing in 22q11.2 Deletion Syndrome

Candice Medina (Albert Einstein College of Medicine), summer 2018

Project: Multisensory attention in Autism Spectrum Disorder

York Chen (Albert Einstein College of Medicine), summer 2017

Project: Basic auditory processing in 22q11.2 Deletion Syndrome

Jason Siev (Albert Einstein College of Medicine), summer 2017

Project: Basic visual processing in 22q11.2 Deletion Syndrome

### **Editorial Service**

Executive Editor for JoLS, Journal of Life Sciences

Editorial Boards: European Journal of Neuroscience, Frontiers of Neurology, Frontiers in Psychiatry, Frontiers of Neuroscience

Ad hoc Reviewer for Journals: Biological Psychiatry; Neuropsychopharmacology; Neuroscience and Biomedical Engineering; European Journal of Neuroscience; Experimental Brain Research

Grant Reviewer for: Agency for Health Quality and Assessment of Catalonia; Autism Speaks

# **Professional Memberships**

Society of Biological Psychiatry, 2020-present

Schizophrenia International Research Society, 2020-present

Neuropsychiatric Working Group of the New York Genome Center, 2019-present

American 22q11.2 Network, 2018-present

### **Technical Skills**

*Programming Languages:* R, C/C++, Python (basic)

Scientific Software: Matlab, EEGlab, ERPLab, SPM, PRAAT

Experimental Software: Presentation

Statistical Packages: R, SPSS

Others: Adobe Illustrator, Adobe Premiere, Adobe Photoshop

### **Others**

Founder of MhOOD: Mental Health Outreach on Display

Founding member of the C.O.D.E (Community Outreach and increasing Diversity Efforts) committee

Co-editor of The CNL, the Cognitive Neurophysiology Laboratory newsletter

(https://www.cognitiveneurolab.com/newsletters)

Creator of the Laboratory website (https://www.cognitiveneurolab.com/)

Member of the Albert Einstein College of Medicine Senate

# Volunteering (USA)

Montefiore Health System: Ad hoc interpreter (2019-present)

Bronx Documentary Center (2019-present)

Montefiore Health System: End-of-life support for cancer patients (2018-2019)

Net Impact NYC: Pro-bono consultant (2018)