

PETRONILLA BATTISTA

◦ DETAILS ◦

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📁 WORK EXPERIENCE

Associate Research Specialist, ALBA Language Neurobiology Lab, Memory & Aging Center, Department of Neurology, University of California San Francisco

August 2021 — present

Atlantic Fellow for Equity in Brain Health, Global Brain Health Institute (GBHI), Associate Specialist, Memory & Aging Center, Department of Neurology, University of California San Francisco

August 2020 — July 2021

Mentor: Prof. Maria Luisa Gorno-Tempini

Scientific Advisor for "DeepTrace Technologies" www.deepracetech.com a Spin-off of University School for Advanced Studies IUSS Pavia, IT

Artificial intelligence algorithms predicting the onset and development of neurodegenerative diseases, improving their diagnosis, prognosis and therapy

May 2020 — May 2021

Neuropsychologist, IRCCS Maugeri Institute - Istituto di Bari (Puglia, Italy)

Neuropsychological assessment and rehabilitation of adults with acquired neurological condition

July 2018 — August 2020

Research Fellow AIRALZH-Coop, NEUROFARBA Department - Università degli studi di Firenze, Italy

October 2016 — June 2018

National Network of Young Researchers involved in Alzheimer's Disease Research funded by the Italian Association for Alzheimer's Research Onlus.

Research Fellow Institute of Molecular Bioimaging and Physiology (IBFM) - Consiglio Nazionale delle Ricerche (CNR), Milano, IT

December 2013 — September 2016

Member of the Laboratory of Innovation and Research in Molecular Medicine (INLAB), R&D in the field of personalized medicine, extraction of diagnostic, prognostic and predictive markers of the therapeutic response in Alzheimer's disease, extracted with artificial intelligence methods.

Mentor: Prof. Isabella Castiglioni

Visiting Research Scholar, Neuroscience and Aphasia Unit (NARU) - University of Manchester, Manchester, UK

September 2012 — April 2013

Supervisors: Dr Anna Wollams & Dr Paul Conroy

🎓 EDUCATION AND TRAINING

PhD in Cognitive Neuroscience, University School for Advanced Studies IUSS (IUSS) – Pavia, IT

February 2014 — September 2017

Final grade: Excellent

Thesis: "Screening for Aphasia in NeuroDegeneration: development, normative

data and clinical validity” Mentor: Prof. Stefano Cappa.

Cognitive behavioral therapy (CBT) Specialist, Istituto Santa Chiara, Lecce, IT

October 2016 — December 2020

**Postgraduate School of “Systematic Reviews and Metanalysis, Cochrane”,
Universita’ degli studi di Verona, Italy**

April 2015 — July 2015

**Master’s degree in Cognitive Neuroscience, School of Psychology, Vita-Salute
San Raffaele University – Milan, Italy**

January 2010 — July 2012

Graduated with distinction: Magna cum laude

Thesis “Neural mechanisms of lexical retrieval in post stroke aphasia patients: a pilot study with H-Coil TMS” Mentors: Prof. S. Cappa, Prof. J. Abutalebi

**Bachelor’s degree in Speech and Language Therapy, School of Medicine,
Universita’ degli studi di Bari Aldo Moro, IT**

October 2006 — October 2009

Graduated with distinction: Magna cum laude

Thesis: “Cognitive deficits in Alzheimer’s disease” Mentor: Prof. M. Megna

★ **PARTICIPATION IN RESEARCH NETWORKS AND NATIONAL/INTERNATIONAL FUNDED PROJECTS**

- Principal Investigator of "APP4PPA: a feasibility study of remote speech-language therapy in Italian individuals with primary progressive aphasia" 2021-22 Pilot Awards for Global Brain Health Leaders by the Alzheimer’s Association.
- “Parkinson disease and dysarthria: a machine learning approach”, Role: Coordinator of the research activities in IRCCS Istituti Clinici Scientifici Maugeri di Bari by PRIN 2017JNKCYZ
- Member of “NDAL - Neurodegenerative diseases Project Albania” funded by Regione Puglia 25.000€.
- Member of "*Registro Regionale Pugliese SLAP_dem per le malattie rare ALS/FTD*" Coordinator of the Neuropsychology clinical and research activities, funded by 1284/2015
- Member of "*GreatAge Aging in populations Regione Puglia*", Scientific Coordinator of the Neuropsychology clinical and research activities, funded by National PRIN 2009 (DM 19 Marzo 2010 n.51)
- Member of the National Network of Young Researchers involved in Alzheimer's Disease Research funded by the Italian Association for Alzheimer's Research Onlus,
- Member of "*A standardised, multilingual, Mini Linguistic State Examination (MLSE) for classifying and monitoring Primary Progressive Aphasia*" funded by Medical Research Council (Ref MR/N025881/1);
- Member of "*Care-G: una piattaforma di servizi per la cura della salute e la qualità della vita degli anziani*" (funded by Regione Lombardia)

★ **REVIEWER AND EDITOR OF THE FOLLOWING JOURNALS**

- Associate Editor for *Frontiers in Psychology*, section Neuropsychology, Guest Associate Editor within the *Frontiers in Aging Neuroscience* journal. Editorial

work on " The impact of modifiable risk factors on brain structure, function, cognition and dementia risk in aging "May 2021, Member of the Editorial Board for "Dementia & Neurodegenerative diseases" -Frontiers in Neurology; and the EC Neurology Journal

- Book Chapter "Il Trattamento Logopedico dell' Afasia Primaria Progressiva" Mozzo A. & **Battista P.** in Manuale di Afasiologia. Editors: Monti-Gilardone. Publisher Franco Angeli 2019
- Chapter book in the Enciclopedia of Neuroscience and Biobehavioral Psychology Elsevier "Neuroepidemiology: New Methods, Results, and Challenges in the Definition of the Early Phases of Alzheimer's Disease: Insights From Subjective Memory Complaints and Subjective Cognitive Decline" Logroscino G. & **Battista P.** <https://doi.org/10.1016/B978-0-12-819641-0.00008-6>. 2020
- Chapter book in the Enciclopedia The Neuroscience of Dementia, "Frontal lobe syndrome and dementias" **Battista P.**, et al. Volume 2, In book: Genetics, Neurology, Behavior, and Diet in Dementia 2020, Pages 617- 632 doi.org/10.1016/B978-0-12-815868-5.00039-6 2020
- Chapter book in the *The Wiley Encyclopedia of Health Psychology* Salvatore, C., **Battista, P.**, & Castiglioni, I. (2020). "Artificial Intelligence in Medicine: Can Computers Aid the Diagnosis of Alzheimer's Disease?" 163-168.
- Chapter book in the Enciclopedia The Neuroscience of Dementia Lozupone, M., La Montagna, M., Bellomo, A., **Battista, P.**, Seripa, D., Daniele, A., ... & Panza, F. (2020)." Delusions in dementias". In *Genetics, Neurology, Behavior, and Diet in Dementia* (pp. 647-664). Academic Press.



SIGNIFICANT PUBLICATIONS

Scopus H-index 11 | Google Scholar H-index 15 | WoS H-index 10

- Geraudie A, **Battista P**, Garcia A, Miller Z, Gorno Tempini ML, Montembeault M (2021). Speech and language impairments in behavioral variant frontotemporal dementia: A systematic review. NEUROSCIENCE AND BIOBEHAVIORAL REVIEWS, *under review*.
- **Battista P**, Salvatore C, Berlingeri M, Cerasa A, Castiglioni I (2020). Artificial intelligence and Neuropsychological measures: the case of Alzheimer's disease. NEUROSCIENCE AND BIOBEHAVIORAL REVIEWS, ISSN: 0149-7634.
- **Battista P**, Griseta C, Tortelli R, Guida P, Castellana F, Rivolta D, Logroscino G (2020). The Modified five-points test. Normative data for a sample of Italian Elderly. NEUROLOGICAL SCIENCES, ISSN: 1590-3478.
- **Battista P**, Capozzo R, Rizzo G, Zecca C, Anastasia A, De Blasi R, Logroscino G (2019). Early pathological gambling in co-occurrence with semantic variant primary progressive aphasia: a case report. CLINICAL INTERVENTIONS IN AGING, ISSN: 1178-1998.
- **Battista P.**, Catricalà, E, Piccininni, M, .., Cappa SF (2018). Screening for Aphasia in NeuroDegeneration for the Diagnosis of Patients with Primary Progressive Aphasia: Clinical Validity and Psychometric Properties. DEMENTIA AND GERIATRIC COGNITIVE DISORDERS, vol. 46, ISSN: 1420-8008.
- **Battista P**, Miozzo A, Piccininni M, Catricalà E, Capozzo R, Tortelli R, Padovani A, Cappa SF, Logroscino G (2017). Primary progressive aphasia: a review of neuropsychological tests for the assessment of speech and language disorders. APHASIOLOGY, ISSN: 0268-7038.
- **Battista, P.**, Salvatore, C., Castiglioni, I. (2017). Optimizing neuropsychological

assessments for cognitive, behavioral, and functional impairment classification: A machine learning study. BEHAVIOURAL NEUROLOGY, vol. 2017, ISSN: 0953-4180.

- Lagravinese G., Sardone S., De Trane S., Montenegro F., Losavio E., Fiore P., Battista P. (2021) Intensive Neurofeedback training to improve impaired Attention and Executive Functions Secondary to Resection of Tuberculum Sellae Meningioma: A Case Study. NEUROREGULATION, 10.15540/nr.8.3.149
- Zupo, R., Griseta, C., Battista, P., Donghia, R., Guerra, V., Castellana, F., ... & Panza, F. (2021). Role of plant-based diet in late-life cognitive decline: results from the Salus in Apulia Study. NUTRITIONAL NEUROSCIENCE, 1-10.
- Lozupone M, Sardone R, Donghia R, D'Urso F, Piccininni C, Battista P, Di Gioia U, Resta E, Castellana F, Lampignano L, Zupo R, Bortone I, Guerra V, Griseta C, Seripa D, Solfrizzi V, Giannelli G, Quaranta N, Logroscino G, Bellomo A, Panza F (2020). Late-onset depression is associated to age-related central auditory processing disorder in an older population in Southern Italy. GEROSCIENCE, ISSN: 2509-2723, doi: 10.1007/s11357-020-00290-1
- Messina A, Miozzo A, Logroscino G, Battista P (2020). Primary Progressive Aphasia: What We Know So Far about the Literature on Speech and Language Interventions. LOGOPEDIA E COMUNICAZIONE, vol. 16, p. 183-212, ISSN: 1825-6724, doi: 10.14605/LOG1622004
- Sardone R, Battista P, Donghia R, Lozupone M, Tortelli R, Guerra V, Grasso A, Griseta C, .. Logroscino G, Quaranta N (2020). Age-Related Central Auditory Processing Disorder, MCI, and Dementia in an Older Population of Southern Italy. OTOLARYNGOLOGY-HEAD AND NECK SURGERY, ISSN: 0194-5998, doi: 10.1177/0194599820913635
- Scrutinio D, Battista P, Guida P, Lanzillo B, Tortelli R (2020). Sex differences in long-term mortality and functional outcome after rehabilitation in patients with severe stroke. FRONTIERS IN NEUROLOGY, ISSN: 1664-2295, doi: 10.3389/fneur.2020.00084
- Scrutinio D, Ricciardi C, Donisi L, Losavio E, Battista P, Guida P, M Cesarelli, Pagano G, D'Addio G (2020). Machine learning to predict mortality after rehabilitation among patients with severe stroke. SCIENTIFIC REPORTS, ISSN: 2045-2322
- Spagnolo F, Rini A, Guida P, Longobardi S, Battista P, Passarella B (2020). The Choice of Leg During Pull Test in Parkinson's Disease: Not Mere Chance. FRONTIERS IN NEUROLOGY, ISSN: 1664-2295, doi: 10.3389/fneur.2020.00302
- Logroscino G, Imbimbo BP, Lozupone M, Sardone R, Capozzo R, Battista P, Zecca C, Dibello V, Giannelli G, Bellomo A, Greco A, Daniele A, Seripa D, Panza F (2019). Promising therapies for the treatment of frontotemporal dementia clinical phenotypes: from symptomatic to disease-modifying drugs.. EXPERT OPINION ON PHARMACOTHERAPY, ISSN: 1744-7666 doi: 10.1080/14656566.2019.1598377
- Logroscino G, Piccininni M, Binetti G, Zecca C, Turrone R, Capozzo R, Tortelli R, Battista P, Bagoj E, Barone R, Fostinelli S, Benussi L, Ghidoni R, Padovani A, Cappa SF, Alberici A, Borroni B (2019). Incidence of frontotemporal lobar degeneration in Italy: The Salento-Brescia Registry study. NEUROLOGY, ISSN: 0028-3878, doi: 10.1212/WNL.0000000000007498
- Sardone R, Battista P, Panza F, Lozupone M, Griseta C, Castellana F, Capozzo R, Ruccia M, Resta E, Seripa D, Logroscino G, Quaranta N (2019). The Age-Related Central Auditory Processing Disorder: Silent Impairment of the Cognitive Ear. FRONTIERS IN NEUROSCIENCE, ISSN: 1662-453X, doi:

10.3389/fnins.2019.00619

- Sardone R, Lampignano L, Guerra V, Zupo R, Donghia R, Castellana F, Battista P, Bortone I, Procino F, Castellana M, Passantino A, Rucco R, Lozupone M, Seripa D, Panza F, De Pergola G, Giannelli G, Logroscino G, Boeing H, Quaranta N (2019). Relationship between Inflammatory Food Consumption and Age-Related Hearing Loss in a Prospective Observational Cohort: Results from the Salus in Apulia Study. *NUTRIENTS*, ISSN: 2072-6643, doi: 10.3390/nu12020426
- Scrutinio D, Lanzillo B, Guida P, Passantino A, Spaccavento S, Battista P (2019). Association between Malnutrition and Outcomes in patients with severe Ischemic Stroke undergoing Rehabilitation. *ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION*, vol. 101, ISSN: 1532-821X, doi: 10.1016/j.apmr.2019.11.012
- Lozupone M, Panza F, Piccininni M, Copetti M, Sardone R, Imbimbo B, Stella E, D'Urso F, Barulli M, Battista P, Grasso A, Tortelli R, Capozzo R, Coppola F, Abbrescia DI, Bellomo A, Giannelli G, Quaranta N, Seripa D, Logroscino G (2018). Social Dysfunction in Older Age and Relationships with Cognition, Depression, and Apathy: The GreatAGE Study. *JOURNAL OF ALZHEIMER'S DISEASE*, vol. 65, p. 989-1000, ISSN: 1875-8908, doi: 10.3233/JAD-180466.
- Panza F, Lozupone M, Sardone R, Battista P, Piccininni M, Dibello V, La Montagna M, Stallone R, Venezia P, Liguori A, Giannelli G, Bellomo A, Greco A, Daniele A, Davide Seripa D, Quaranta N, Logroscino G (2018). Sensorial frailty: age-related hearing loss and the risk of cognitive impairment and dementia in later life. *THERAPEUTIC ADVANCES IN CHRONIC DISEASE*, ISSN: 2040-6223, doi: 10.1177/2040622318811000
- Catricala' E, Gobbi E, Battista P, Miozzo A, Polito C, Boschi V, Esposito V, Cuoco S, Barone P, Sorbi S, Cappa SF, Garrard P (2017). SAND: a Screening for Aphasia in NeuroDegeneration. Development and normative data. *NEUROLOGICAL SCIENCES*, ISSN: 1590-1874, doi: 10.1007/s10072-017-3001-y
- SALVATORE C, BATTISTA P, CASTIGLIONI I (2016). Frontiers in the early diagnosis of AD by means of MRI brain imaging and Support Vector Machines. *CURRENT ALZHEIMER RESEARCH*, ISSN: 1567-2050, doi: 10.2174/1567205013666151116141705
- Salvatore C, Cerasa A, Battista P, Gilardi MC, Quattrone A and Castiglioni I (2015). Magnetic resonance imaging biomarkers for the early diagnosis of Alzheimer's disease: a machine learning approach. *FRONTIERS IN NEUROSCIENCE*, vol. 9:307, ISSN: 1662-4548, doi: 10.3389/fnins.2015.00307
- Canini M, Battista P, Della Rosa PA, Catricalà E, Salvatore C, Gilardi MC, Castiglioni I. (2014). Computerized Neuropsychological Assessment in Aging: Testing Efficacy and Clinical Ecology of Different Interfaces. *COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE*, vol. 2014, 804723, ISSN: 1748-670X, doi: 10.1155/2014/804723
- Chieffo R, Ferrari F, Battista P, Houdayer E, Nuara A, Alemanno F, Abutalebi J, Zangen A, Comi G, Cappa SF, Leocani L. (2014). Excitatory deep TMS with H-coil over the right homologous Broca's region improves naming in chronic post-stroke aphasia. *NEUROREHABILITATION AND NEURAL REPAIR*, vol. 28, p. 291-298, ISSN: 1545-9683, doi: 10.1177/1545968313508471