Curriculum vitae

Luca Sacchi

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Fields of Interest: neurodegenerative disorders, prognostic biomarkers, quantitative neuroimaging.

Education

- **Doctoral Program in Clinical Research, University of Milan, Milan, Italy** 2022-2025
  Dissertation: DTI-ALPS reflects white matter diffusion anisotropy and microstructural heterogeneity rather than glymphatic flow: insights from multi-modal MRI. Supervisors: Prof. Daniela Galimberti, Dott. Andrea Arighi

- **Completion of specialist Neurology training** 13/11/2023
  Dissertation: The glymphatic system in Alzheimer's disease and related dementias: in-depth characterization through quantitative multiparametric MRI and cerebrospinal fluid analysis. Supervisors: Prof. Alberto Priori, Prof. Giacomo Pietro Comi, Dott. Andrea Arighi. Final mark: 70/70 with honors

- **Inscription Italian Order of Physicians** 28/02/2019
  Ordine dei Medici di Milano, Milan, Italy (number 46156)

- **Medical Doctor Degree, University of Milan, Italy** 31/07/2018
  Dissertation: Nuovi biomarcatori per la malattia di Alzheimer: ruolo dei microRNA in esosomi plasmatici di origine neuronale. Final mark: 110/110 with honors. Supervisors: Prof. Elio Scarpini, Dr. Daniela Galimberti

- **Classical High School Diploma** 2012
  Liceo Salvatore Quasimodo, Magenta (MI), Italy. Final mark: 100/100 with honors

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Work experiences

- **Consultant Neurologist** 10/2025-
  IRCCS Fondazione Ca' Granda, Ospedale Maggiore Policlinico, Milan;
- **Freelance Consultant Neurologist** 03/2025-10/2025
  ASST Melegnano Martesana, Ospedale di Vizzolo Predabissi;
- **Freelance Consultant Neurologist** 02/2024-10/2025
  IRCCS Fondazione Ca' Granda, Ospedale Maggiore Policlinico, Milan;
- **Resident Doctor in Neurology, University of Milan** 2019-2023
  IRCCS Fondazione Ca' Granda, Ospedale Maggiore Policlinico, Milan; ASST Fatebenefratelli-Sacco, Ospedale Sacco, Milan; ASST Santi Paolo e Carlo, Ospedale San Paolo, Milan
  Clinical activities:
  - *General practice in the Neurology Unit and in the Emergency Department*
  - *Neurodegenerative disease Unit (Multiple Sclerosis and Alzheimer Centres)*

  Research activities:

- *Quantitative brain MRI*
- *Correlations between neuroimaging data (MRI, PET, and OCT) and biological biomarkers*
- *Epidemiological studies: meta-analyses and systematic reviews*

- **Non-emergency medical care, Doctor on call** 03/2019-10/2019
  Ospedale Giuseppe Fornaroli, Magenta, ATS Città Metropolitana di Milano, Italy

- **Undergraduate Fellow, University of Milan**
  Department of Pathophysiology and Transplantation, Neurology Unit, University of Milan, IRCCS Fondazione Ca' Granda, Ospedale Maggiore Policlinico, Milan, Italy. Supervisors: Prof. Elio Scarpini, Dr. Daniela Galiimberti 2015-2018
  Clinical activity in the Neurology Unit and in the Multiple Sclerosis Center

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Publications

1. **Sacchi L**, Arcaro M, Bocca G, Schmid L, Carandini T, Ghezzi L, Pintus M, Pietroboni AM, Fenoglio C, Serpente M, Conte G, Triulzi F, Lanzarotti R, Dolci C, Galimberti D, Arighi A. Association between Klotho levels in cerebrospinal fluid and choroid plexus enlargement in neurodegeneration. Front Aging Neurosci 2025 Nov 27:17:1688996. doi: 10.3389/fnagi.2025.1688996 2025
2. Aiello EN, Gendarini C, Cocuzza A, Romandini A, Mauri S, Curti B, Luca G, Verde F, Ticozzi N, Mercurio M, Rotondo E, Borracci V, Vimercati R, **Sacchi L**, Carandini T, Galimberti D, Arighi A, Poletti B, Saetti MC. Semantic and phonemic advantages in Alzheimer's disease and behavioral variant-frontotemporal dementia: Insights from the Fluency Type Index. J Alzheimers Dis 2025 Dec;108(3):1268-1275. doi: 10.1177/13872877251386438 2025
3. Giudici G, Fenoglio C, Serpente M, Arighi A, Arcaro M, Delvecchio G, Brambilla P, Sacchi L, Pintus M, Borracci V, De Boer SCM, Landin-Romero R, Piguet O, Rue I, Riedl L, Diehl-Schmid J, Ducharme S, Halliday G, Pijnenburg YAL, Galimberti D. Comparison of neuron-derived extracellular vesicles miRNA profile between patients with behavioural variant frontotemporal dementia and primary psychiatric disorders. Neurobiol Dis. 2025 Nov;216:107132. doi: 10.1016/j.nbd.2025.107132. 2025
4. Serpente M, Delvecchio G, Fenoglio C, Di Consoli L, Giudici G, Borracci V, Rotondo E, Arcaro M, **Sacchi L**, Pintus M, Ghezzi L, Ferro A, Prunas C, Callari A, Scola E, Triulzi FM, Arighi A, Brambilla P, Galimberti D. Differential miRNA expression in neural-enriched extracellular vesicles as potential biomarker for frontotemporal dementia and bipolar disorder. Neurobiol Dis. 2025 May;208:106867. doi: 10.1016/j.nbd.2025.106867 2025
5. **Sacchi L**, D'Agata F, Campisi C, Arcaro M, Carandini T, Örzsik B, Dal Maschio VP, Fenoglio C, Pietroboni AM, Ghezzi L, Serpente M, Pintus M, Conte G, Triulzi F, Lopiano L, Galimberti D, Cercignani M, Bozzali M, Arighi A. A "glympse" into neurodegeneration: Diffusion MRI and cerebrospinal fluid aquaporin-4 for the assessment of glymphatic system in Alzheimer's disease and other dementias. Hum Brain Mapp. 2024 Aug 15;45(12):e26805. doi: 10.1002/hbm.26805. 2024
6. Fenoglio C, Serpente M, Arcaro M, Carandini T, **Sacchi L,** Pintus M, Rotondo E, Borracci V, Ghezzi L, Bouzigues A, Russell LL, Foster PH, Ferry-Bolder E, van Swieten JC, Jiskoot LC, Seelaar H, Sánchez Valle R, Laforce R, Graff C, Vandenberghe R, de Mendonça A, Tiraboschi P, Santana I, Gerhard A, Levin J, Sorbi S, Otto M, Pasquier F, Ducharme S, Butler CR, Ber IL, Finger E, Carmela Tartaglia M, Masellis M, Rowe JB, Synofzik M, Moreno F, Borroni B, Rohrer JD, Arighi A, Galimberti D; Genetic FTD Initiative GENFI. Inflammatory plasma profile in genetic symptomatic and presymptomatic Frontotemporal Dementia - A GENFI study. Brain Behav Immun. 2024 Nov;122:231-240. 2024

doi: 10.1016/j.bbi.2024.08.030. Epub 2024 Aug 15.

7. Serpente M, Fenoglio C, Arcaro M, Carandini T, **Sacchi L**, Pintus M, Rotondo E, Borracci V, Ghezzi L, Bouzigues A, Russell LL, Foster PH, Ferry-Bolder E, van Swieten JC, Jiskoot LC, Seelaar H, Sánchez Valle R, Laforce R, Graff C, Vandenberghe R, de Mendonça A, Tiraboschi P, Santana I, Gerhard A, Levin J, Sorbi S, Otto M, Pasquier F, Ducharme S, Butler CR, Le Ber I, Finger E, Tartaglia MC, Masellis M, Rowe JB, Synofzik M, Moreno F, Borroni B, Rohrer JD, Arighi A, Galimberti D; Genetic FTD Initiative GENFI. Long Non-Coding RNA Profile in Genetic Symptomatic and Presymptomatic Frontotemporal Dementia: A GENFI Study. J Alzheimers Dis. 2024;100(s1):S187-S196. doi: 10.3233/JAD-240557. 2024
8. Falgàs N, **Sacchi L,** Carandini T, Montagut N, Conte G, Triulzi F, Galimberti D, Arighi A, Sanchez-Valle R, Fumagalli GG. Utility of visual rating scales in primary progressive aphasia. Alzheimers Res Ther. 2024 Apr 6;16(1):73. doi: 10.1186/s13195-024-01442-7. 2024
9. M. Chapleau, R. La Joie, K. Yong, F. Agosta, I.E. Allen, L. Apostolova, J. Best, B.D.C. Boon, S. Crutch, M. Filippi, G.G. Fumagalli, D. Galimberti, J. Graff-Radford, L.T. Grinberg, D.J. Irwin, K.A. Josephs, M.F. Mendez, P.C. Mendez, R. Migliaccio, Z.A. Miller, M. Montembeault, M.E. Murray, S. Nemes, V. Pelak, D. Perani, J. Phillips, Y. Pijnenburg, E. Rogalski, J.M. Schott, W. Seeley, A.C. Sullivan, S. Spina, J. Tanner, J. Walker, J.L. Whitwell, D.A. Wolk, R. Ossenkoppele, G.D. Rabinovici, Z. Abdi, S. Ahmed, D. Alcolea, K.S.J. Allinson, A. Arighi, M. Balasa, F. Barkhof, K.D. Brandt, J. Brosch, J. Burrell, C.R. Butler, I. Calandri, S.P. Caminiti, E. Canu, M.C. Carrillo, F. Caso, M. Chu, N. Cordato, A.S. Costa, Y. Cui, B. Dickerson, D.W. Dickson, R. Duara, B. Dubois, M. Eldaief, M. Farlow, C. Feneglio, K. Fliessbach, M. Formaglio, J. Fortea, N. Fox, D. Foxe, C.F. Tilikete, M.P. Frosch, D. Galasko, O. Garat, G. Giardinieri, N.R. Graff-Radford, C. Groot, A.M. Hake, O. Hansson, A. Headley, M. Hernandez, D. Hochberg, J.R. Hodges, P.R. Hof, J. Holton, G. Hromas, I. Illán Gala, Z. Jaunmuktane, D. Jing, S.M. Kagerer, K. Kasuga, Y. Kong, E. Kövari, M. Lacombe-Thibault, A. Lleó Plarrumaní, D.E. Lucente, M.M. Machulda, G. Magnani, E. Magnin, M. Malpetti, B. Matthews, S. Mcginnis, M. Mesulam, C. Miklitz, N. Mundada, P.J. Nestor, D. Ocal, R. Paterson, O. Piguet, D. Putcha, M. Quimby, K. Reetz, N. Rein, T. Revesz, N. Rezaii, F. Rodriguez-Porcel, J.B. Rowe, N. Ryan, R. Sanchez-Valle, **L. Sacchi**, M.Á. Santos-Santos, J. Sherman, E. Stomrud, P. Tideman, T. Tokutake, G. Tondo, A. Touroutoglou, B. Tousi, R. Vandenberghe, W. van der Flier, S. Weintraub, B. Wong, L. Wu, K. Xie. Demographic, clinical, biomarker, and neuropathological correlates of posterior cortical atrophy: an international cohort study and individual participant data meta-analysis. Lancet Neurol. 2024 Feb;23(2):168-177. doi: 10.1016/S1474-4422(23)00414-3 2024
10. Di Napoli J, Arighi A, Conte G, Carandini T, **Sacchi L**, Arcaro M, Fenoglio C, Sorrentino F, Mercurio M, Pietroboni AM, Giardinieri G, Triulzi F, Galimberti D, Scarpini E, Fumagalli GG. Predominant right temporal lobe atrophy: Clinical, neuropsychological and structural differences based on amyloid status. Eur J Neurol. 2024 Feb;31(2):e16124 2024
11. **Sacchi L**, Arcaro M, Carandini T, Pietroboni AM, Fumagalli GG, Fenoglio C, Serpente M, Sorrentino F, Visconte C, Pintus M, Conte G, Contarino VE, Scarpini E, Triulzi F, Galimberti D, Arighi A. Association between enlarged perivascular spaces and cerebrospinal fluid aquaporin-4 and tau levels: report from a memory clinic. Front Aging Neurosci. 2023 Jul 20:15:1191714. doi: 10.3389/fnagi.2023.1191714 2023
12. Sorrentino F, Fenoglio C, **Sacchi L**, Serpente M, Arighi A, Carandini T, Arosio B, Ferri E, Arcaro M, Visconte C, Rotondo E, Scarpini E, Galimberti D. Klotho Gene Expression Is Decreased in Peripheral Blood Mononuclear Cells in Patients with Alzheimer's Disease and Frontotemporal Dementia. J Alzheimers Dis. 2023;94(3):1225-1231. doi: 10.3233/JAD-230322 2023
13. **Sacchi L**, Contarino VE, Siggillino S, Carandini T, Fumagalli GG, Pietroboni AM, Arcaro M, Fenoglio C, Orunesu E, Castellani M, Casale S, Conte G, Liu C, Triulzi F, Galimberti D, Scarpini E, Arighi A. Banks of the Superior Temporal Sulcus in Alzheimer's Disease: A Pilot Quantitative Susceptibility Mapping Study. J Alzheimers Dis. 2023 May 5. doi: 2023

10.3233/JAD-230095

14. Pietroboni AM, Colombi A, Contarino VE, Russo FML, Conte G, Morabito A, Siggillino S, Carandini T, Fenoglio C, Arighi A, De Riz MA, Arcaro M, **Sacchi L**, Fumagalli GG, Bianchi AM, Triulzi F, Scarpini E, Galimberti D. Quantitative susceptibility mapping of the normal-appearing white matter as a potential new marker of disability progression in multiple sclerosis. Eur Radiol. 2022 Dec 23. doi: 10.1007/s00330-022-09338-6. 2022
15. Arcaro M, Fenoglio C, Serpente M, Arighi A, Fumagalli GG, **Sacchi L**, Floro S, D'Anca M, Sorrentino F, Visconte C, Perego A, Scarpini E, Galimberti D. A Novel Automated Chemiluminescence Method for Detecting Cerebrospinal Fluid Amyloid-Beta 1-42 and 1-40, Total Tau and Phosphorylated-Tau: Implications for Improving Diagnostic Performance in Alzheimer's Disease. Biomedicines. 2022 Oct 21;10(10):2667. 2022
16. Arighi A, Arcaro M, Fumagalli GG, Carandini T, Pietroboni AM, **Sacchi L**, Fenoglio C, Serpente M, Sorrentino F, Isgrò G, Turkheimer F, Scarpini E, Galimberti D. Aquaporin-4 cerebrospinal fluid levels are higher in neurodegenerative dementia: looking at glymphatic system dysregulation. Alzheimers Res Ther. 2022 Sep 17;14(1):135. 2022
17. Pietroboni AM, Colombi A, Carandini T, **Sacchi L**, Fenoglio C, Marotta G, Arighi A, De Riz MA, Fumagalli GG, Castellani M, Bozzali M, Scarpini E, Galimberti D. Amyloid PET imaging and dementias: potential applications in detecting and quantifying early white matter damage. Alzheimers Res Ther. 2022 Feb 12; 14(1):33. 2022
18. **Sacchi L**, Carandini T, Fumagalli GG, Pietroboni AM, Contarino VE, Siggillino S, Arcaro M, Fenoglio C, Zito F, Marotta G, Castellani M, Triulzi F, Galimberti D, Scarpini E, Arighi A. Unravelling the Association Between Amyloid-PET and Cerebrospinal Fluid Biomarkers in the Alzheimer's Disease Spectrum: Who Really Deserves an A+? J Alzheimers Dis. 2022; 85(3):1009-1020. 2022
19. Carandini T, **Sacchi L**, Bovis F, Azzimonti M, Bozzali M, Galimberti D, Scarpini E, Pietroboni AM. Distinct patterns of MRI lesions in MOG antibody disease and AQP4 NMOSD: a systematic review and meta-analysis. Mult Scler Relat Disord. 2021 Sep; 54:103118 2021
20. Pietroboni AM, Lanfranconi S, Novella A, Carandini T, Arighi A, Abati E, Brusa R, Costamagna G, Lazzeri G, Mauri E, Pozzato M, **Sacchi L**, Valcamonica G, Villa D, Bonato S, Comi GP, Bresolin N, Galimberti D, Scarpini E, Nobili A; Neurology-COVID-19 Group. Clinical features and disease course of patients with acute ischaemic stroke just before the Italian index case: Was COVID-19 already there? Intern. Emerg. Med. 2021 Feb 10;1-6. 2021
21. **Sacchi L**, Rotondo E, Pozzoli S, Fiorentini A, Schinco G, Mandelli C, Coppola C, Fumagalli GG, Carandini T, Pietroboni AM, Galimberti D, Triulzi F, Marotta G, Scarpini E, Cesari M, Brambilla P, Arighi A. Diogenes syndrome in dementia: a case report. BJPsych Open. 2021 Feb 2;7(2):e43. 2021
22. Carandini T, **Sacchi L**, Ghezzi L, Pietroboni AM, Fenoglio C, Arighi A, Fumagalli GG, De Riz MA, Serpente M, Rotondo E, Scarpini E, Galimberti D. Detection of the SQSTM1 Mutation in a Patient with Early-Onset Hippocampal Amnestic Syndrome. J Alzheimers Dis. 2021;79(2):477-481. 2021
23. Fumagalli GG, Basilico P, Arighi A, Mercurio M, Scarioni M, Carandini T, Colombi A, Pietroboni AM, **Sacchi L**, Conte G, Scola E, Triulzi F, Scarpini E, Galimberti D. Parieto-occipital sulcus widening differentiates posterior cortical atrophy from typical Alzheimer disease. Neuroimage Clin. 2020;28:102453. 2020
24. Carandini T, Pietroboni AM, **Sacchi L**, De Riz MA, Pozzato M, Arighi A, Fumagalli GG, Martinelli Boneschi F, Galimberti D, Scarpini E. Alemtuzumab in multiple sclerosis during the COVID-19 pandemic: A mild uncomplicated infection despite intense immunosuppression. Mult. Scler. 2020 Sep;26(10):1268-1269. 2020
25. Carandini T, Arighi A, **Sacchi L**, Fumagalli GG, Pietroboni AM, Ghezzi L, et al. Testing the 2018 NIA-AA research framework in a retrospective large cohort of patients with cognitive impairment: from biological biomarkers to clinical syndromes. Alzheimers Res 2019

Ther. 2019 Oct 15;11(1):84.

26. Fumagalli GG, **Sacchi L**, Basilico P, Arighi A, Carandini T, Scarioni M, et al. Monozygotic Twins with Frontotemporal Dementia Due To Thr272fs GRN Mutation Discordant for Age At Onset. J Alzheimers Dis. 2019;67(4):1173-1179. 2019

National and International Congresses

Invited speaker at the 33° Congresso Nazionale AINR, Reggio Calabria (2025)
60° Congresso AINPeNC e 50° Congresso AIRIC, Milan (2025)
ISMRM & ISMRT Annual Meeting & Exhibition, Virtual (2025)
Invited speaker at the 7° Congresso Nazionale, Turin (2024)
XIX Convegno Nazionale SINDEM, Padova, Italy (2024)
1st Glymphatic Symposium, Lund (2024)
9th European Academy of Neurology, Budapest (2023)
8th European Academy of Neurology, Wien (2022)
7th European Academy of Neurology, Virtual (2021)
6th European Academy of Neurology, Virtual (2020)
12th SINDEM for Juniors, Bressanone, Italy (2025)
11th SINDEM for Juniors, Bressanone, Italy (2024)
10th SINDEM for Juniors, Bressanone, Italy (2023)
9th SINDEM for Juniors, Bressanone, Italy (2022)
8th SINDEM for Juniors, Bressanone, Italy (2020)
7th SINDEM for Juniors, Bressanone, Italy (2019)
XIV Convegno Nazionale SINDEM, Florence, Italy (2019)

Grants & Honours
"Diego Lops" award winner, ed. 2023-2024
"Massimo Musicco" award for best oral presentation at the 11th Sindem for Juniors
Travel Grants with bursary for the 9th EAN congress
Travel Grants with bursary for the 8th EAN congress

Skills & Interests

- **Languages:** Italian (native), English (fluent), Spanish (elementary)
- **Computer Skills**: Microsoft Office Suite (Word, Excel, Power Point), R, Jamovi, MatLab, SPM, FreeSurfer, FSL
- **Sports**: climbing, hiking, skiing, swimming.

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Milano, 18/09/2026