Curriculum vitae et studiorum

Alessandro Galgani, MD, PhD

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Appointments and education

Appointments and qualifications

1 Oct 2026– **Associate Professor of Human Anatomy**
Saint Camillus International University of Health Sciences (UniCamillus), Rome. Academic field 05/BIOS-12, disciplinary sector BIOS-12/A.

2026 **Italian National Scientific Qualification**
Eligibility for appointment as Associate Professor of Human Anatomy (BIOS-12/A, formerly BIO/16).

University education

2025 PhD in Clinical and Translational Sciences, Neuroscience track, University of Pisa. Awarded with honours.
Thesis: "*The role of Locus Coeruleus in physiological ageing and Alzheimer's Disease*".

2022 Specialist training in Neurology, University of Pisa and Pisa University Hospital. 110/110 with honours.
Thesis: "*Locus Coeruleus Magnetic Resonance Imaging in Alzheimer's Disease*".

2017 Medical degree, University of Pisa. 110/110 with honours, thesis recommended for publication.
Thesis: "*Studio in vivo del nucleo noradrenergico Locus Coeruleus in pazienti con decadimento cognitivo lieve, demenza di Alzheimer e in soggetti sani*".

University teaching

2025/2026 **Contract Lecturer · Human Anatomy I (BIOS-12/A)**
Saint Camillus International University of Health Sciences (UniCamillus), Rome. Single-cycle degree in Medicine and Surgery (LM-41), Year 1, Semester 2, taught in Italian. 1 credit per teaching group.

2025/2026 **Contract Lecturer · Human Anatomy**
University of Naples Federico II. Nursing degree programme at the Benevento Local Health Authority. Integrated course in Morphological Foundations of Life (Fondamenti Morfologici della Vita).

2025/2026 **Teaching appointment · Summer School**
University of Pisa. From Tissues to the Organelles: State of the Art in Morphological Studies by Optical and Transmission Electron Microscopy. Session on unbiased stereology and quantitative analysis of histological images using open-source software, 28 May 2026.

2024/2025 **Co-instructor · Human Anatomy**
University of Pisa. Speech and Language Therapy degree programme. Integrated course in Linguistics and Special Anatomy (Glottologia e Anatomia Speciale).

2024/2025 **Co-instructor · Second-level university Master's programme (MATAM)**
University of Pisa. Applied Distance Learning in Health Sciences and ICT in Medicine.

2022/2023 **Teaching appointment · Winter School**
University of Pisa. Theory and Practice in Transmission and Scanning Electron Microscopy.

Exam board qualifications

2023–2026 **Subject expert (cultore della materia)**
University of Pisa, Department of Biology. Human Anatomy (BIO/16), Biological Sciences degree programme, and Neurobiology II (BIO/09), Master's degree programme in Neuroscience.

Research profile

His research explores the contribution of subcortical nuclei to neurodegeneration, with a particular focus on the locus coeruleus and the noradrenergic system in Alzheimer's disease.

2022 Visiting Researcher, Newcastle University (UK). Research in the Neuropathology Laboratory and the Clinical Ageing Research Unit.

Research projects and studies

2026–2029 Investigator, translational study of the locus coeruleus in temporal lobe epilepsy. Italian Ministry of Health, RF-2024-12379372.

2024–2027 Investigator, TRANSCENDE, a translational study of the central noradrenergic system in childhood structural epilepsy. Fondazione Pisa, grant 303/22.

2023–2026 Investigator, NAging, an experimental study of the neuroprotective role of the noradrenergic system in ageing. University of Pisa.

2021–2022 Sub-investigator, phase IIIb study of aducanumab safety in Alzheimer's disease (NCT04241068).

2020–2021 Sub-investigator, phase III trial of ravulizumab in amyotrophic lateral sclerosis (NCT04248465).

2017–2020 Investigator, longitudinal study of the locus coeruleus in Alzheimer's disease and other dementias, and phase II pilot PET study using FGE-180 in cognitive impairment. Italian Ministry of Health, PE-2013-02359574.

Awards

Young Investigator Award (GISN), Catania (2024).

Best PhD Project, University of Pisa (2023).

Mark A. Smith Award, third place, International Society for Neurochemistry (2022).

Progetto Giovani grants, Italian Society of Neurology (2019, 2021, 2023).

Scientific memberships

Italian Society of Anatomy and Histology (SIAI), Italian Group for the Study of Neuromorphology (GISN), Italian Society of Neurology (SIN) and European Academy of Neurology (EAN).

Publications

Journal articles

† Co-first author

Scotto, M., **Galgani, A.**, Boido, M., Mohammady, N., Vercelli, A., & Giorgi, F. S. (2026). Stereological assessment of locus coeruleus in the mouse: A methodological study in pups and adult animals. *Methods and Protocols, 9*(2), Article 64. https://doi.org/10.3390/mps9020064

Galgani, A.†, Mary, A., Lombardo, F., Martini, N., Scotto, M., Tognoni, G., Siciliano, G., Ceravolo, R., Giorgi, F. S., & Heneka, M. T. (2025). Locus coeruleus integrity correlates with plasma soluble Axl levels in Alzheimer's disease patients. *Alzheimer's & Dementia, 21*(7), Article e70434. https://doi.org/10.1002/alz.70434

Galgani, A., Scotto, M., Faraguna, U., & Giorgi, F. S. (2025). Fading blue: Exploring the causes of locus coeruleus damage across the lifespan. *Antioxidants, 14*(3), Article 255. https://doi.org/10.3390/antiox14030255

Galgani, A., Lombardo, F., Frijia, F., Scotto, M., Tognoni, G., Pavese, N., & Giorgi, F. S. (2025). Locus coeruleus sexual dimorphism and its impact on cognitive impairment and cortical atrophy in Alzheimer's disease. *Neurodegenerative Diseases, 25*(2), 53–66. https://doi.org/10.1159/000544882

Galgani, A., Scotto, M., & Giorgi, F. S. (2024). The neuroanatomy of induced pluripotent stem cells: In vitro models of subcortical nuclei in neurodegenerative disorders. *Current Issues in Molecular Biology, 46*(9), 10180–10199. https://doi.org/10.3390/cimb46090607

Galgani, A., Lombardo, F., Frijia, F., Martini, N., Tognoni, G., Pavese, N., & Giorgi, F. S. (2024). The degeneration of locus coeruleus occurring during Alzheimer's disease clinical progression: A neuroimaging follow-up investigation. *Brain Structure and Function, 229*(5), 1317–1325. https://doi.org/10.1007/s00429-024-02797-1

Palermo, G., **Galgani, A.**†, Bellini, G., Lombardo, F., Martini, N., Morganti, R., Paoli, D., De Cori, S., Frijia, F., Siciliano, G., Ceravolo, R., & Giorgi, F. S. (2024). Neurogenic orthostatic hypotension in Parkinson's disease: Is there a role for locus coeruleus magnetic resonance imaging? *Journal of Neural Transmission, 131*(2), 157–164. https://doi.org/10.1007/s00702-023-02721-7

Malik, N., Miah, M.-U., **Galgani, A.**, McAleese, K., Walker, L., LeBeau, F. E., Attems, J., Outeiro, T. F., Thomas, A., & Koss, D. J. (2024). Regional AT-8 reactive tau species correlate with intracellular Aβ levels in cases of low AD neuropathologic change. *Acta Neuropathologica, 147*(1), Article 40. https://doi.org/10.1007/s00401-024-02691-4

Galgani, A., & Giorgi, F. S. (2023). Exploring the role of locus coeruleus in Alzheimer's disease: A comprehensive update on MRI studies and implications. *Current Neurology and Neuroscience Reports, 23*(12), 925–936. https://doi.org/10.1007/s11910-023-01324-9

Galgani, A.†, Palermo, G., Lombardo, F., Martini, N., Bastiani, L., Vergallo, A., Tommasini, L., Bellini, G., Baldacci, F., Frosini, D., Tognoni, G., Gesi, M., Cademartiri, F., Fornai, F., Pavese, N., Ceravolo, R., & Giorgi, F. S. (2023). Different patterns of locus coeruleus MRI alteration in Alzheimer's and dementia with Lewy bodies. *Current Alzheimer Research, 20*(4), 277–288. https://doi.org/10.2174/1567205020666230721144603

D'Amora, M., **Galgani, A.**, Marchese, M., Tantussi, F., Faraguna, U., De Angelis, F., & Giorgi, F. S. (2023). Zebrafish as an innovative tool for epilepsy modeling: State of the art and potential future directions. *International Journal of Molecular Sciences, 24*(9), Article 7702. https://doi.org/10.3390/ijms24097702

Galgani, A., Bartolini, E., D'Amora, M., Faraguna, U., & Giorgi, F. S. (2023). The central noradrenergic system in neurodevelopmental disorders: Merging experimental and clinical evidence. *International Journal of Molecular Sciences, 24*(6), Article 5805. https://doi.org/10.3390/ijms24065805

Aghakhanyan, G., **Galgani, A.**†, Vergallo, A., Lombardo, F., Martini, N., Baldacci, F., Tognoni, G., Leo, A., Guidoccio, F., Siciliano, G., Fornai, F., Pavese, N., Volterrani, D., & Giorgi, F. S. (2023). Brain metabolic correlates of locus coeruleus degeneration in Alzheimer's disease: A multimodal neuroimaging study. *Neurobiology of Aging, 122*, 12–21. https://doi.org/10.1016/j.neurobiolaging.2022.11.002

Galgani, A.†, Lombardo, F., Martini, N., Vergallo, A., Bastiani, L., Hampel, H., Hlavata, H., Baldacci, F., Tognoni, G., De Marchi, D., Ghicopulos, I., De Cori, S., Biagioni, F., Busceti, C. L., Ceravolo, R., Bonuccelli, U., Chiappino, D., Siciliano, G., Fornai, F., … Giorgi, F. S. (2023). Magnetic resonance imaging locus coeruleus abnormality in amnestic mild cognitive impairment is associated with future progression to dementia. *European Journal of Neurology, 30*(1), 32–46. https://doi.org/10.1111/ene.15556

Galgani, A.†, Vergallo, A., Campese, N., Lombardo, F., Pavese, N., Petrozzi, L., LoGerfo, A., Franzini, M., Cecchetti, D., Puglisi-Allegra, S., Busceti, C. L., Siciliano, G., Tognoni, G., Baldacci, F., Lista, S., Hampel, H., Fornai, F., & Giorgi, F. S. (2022). Biological determinants of blood-based cytokines in the Alzheimer's disease clinical continuum. *Journal of Neurochemistry, 163*(1), 40–52. https://doi.org/10.1111/jnc.15686

Giorgi, F. S., Martini, N., Lombardo, F., **Galgani, A.**, Bastiani, L., Della Latta, D., Hlavata, H., Busceti, C. L., Biagioni, F., Puglisi-Allegra, S., Pavese, N., & Fornai, F. (2022). Locus coeruleus magnetic resonance imaging: A comparison between native-space and template-space approach. *Journal of Neural Transmission, 129*(4), 387–394. https://doi.org/10.1007/s00702-022-02486-5

Giorgi, F. S., Lombardo, F., **Galgani, A.**, Hlavata, H., Della Latta, D., Martini, N., Pavese, N., Ghicopulos, I., Baldacci, F., Coi, A., Scalese, M., Bastiani, L., Keilberg, P., De Marchi, D., Fornai, F., & Bonuccelli, U. (2022). Locus coeruleus magnetic resonance imaging in cognitively intact elderly subjects. *Brain Imaging and Behavior, 16*(3), 1077–1087. https://doi.org/10.1007/s11682-021-00562-0

Campese, N., Beatino, M. F., Del Gamba, C., Belli, E., Giampietri, L., Del Prete, E., **Galgani, A.**, Vergallo, A., Siciliano, G., Ceravolo, R., Hampel, H., & Baldacci, F. (2021). Ultrasensitive techniques and protein misfolding amplification assays for biomarker-guided reconceptualization of Alzheimer's and other neurodegenerative diseases. *Expert Review of Neurotherapeutics, 21*(9), 949–967. https://doi.org/10.1080/14737175.2021.1965879

Giorgi, F. S., **Galgani, A.**†, Puglisi-Allegra, S., Busceti, C. L., & Fornai, F. (2021). The connections of locus coeruleus with hypothalamus: Potential involvement in Alzheimer's disease. *Journal of Neural Transmission, 128*(5), 589–613. https://doi.org/10.1007/s00702-021-02338-8

Campese, N., Palermo, G., Del Gamba, C., Beatino, M. F., **Galgani, A.**, Belli, E., Del Prete, E., Della Vecchia, A., Vergallo, A., Siciliano, G., Ceravolo, R., Hampel, H., & Baldacci, F. (2021). Progress regarding the context-of-use of tau as biomarker of Alzheimer's disease and other neurodegenerative diseases. *Expert Review of Proteomics, 18*(1), 27–48. https://doi.org/10.1080/14789450.2021.1886929

Galgani, A., Lombardo, F., Della Latta, D., Martini, N., Bonuccelli, U., Fornai, F., & Giorgi, F. S. (2021). Locus coeruleus magnetic resonance imaging in neurological diseases. *Current Neurology and Neuroscience Reports, 21*(1), Article 2. https://doi.org/10.1007/s11910-020-01087-7

Giorgi, F. S., **Galgani, A.**, Gaglione, A., Ferese, R., & Fornai, F. (2020). Effects of prolonged seizures on basal forebrain cholinergic neurons: Evidence and potential clinical relevance. *Neurotoxicity Research, 38*(2), 249–265. https://doi.org/10.1007/s12640-020-00198-w

Mazzucchi, S., Palermo, G., Campese, N., **Galgani, A.**, Della Vecchia, A., Vergallo, A., Siciliano, G., Ceravolo, R., Hampel, H., & Baldacci, F. (2020). The role of synaptic biomarkers in the spectrum of neurodegenerative diseases. *Expert Review of Proteomics, 17*(7–8), 543–559. https://doi.org/10.1080/14789450.2020.1831388

Giorgi, F. S., **Galgani, A.**†, Puglisi-Allegra, S., Limanaqi, F., Busceti, C. L., & Fornai, F. (2020). Locus coeruleus and neurovascular unit: From its role in physiology to its potential role in Alzheimer's disease pathogenesis. *Journal of Neuroscience Research, 98*(12), 2406–2434. https://doi.org/10.1002/jnr.24718

Hampel, H., Lista, S., Vanmechelen, E., Zetterberg, H., Giorgi, F. S., **Galgani, A.**, Blennow, K., Caraci, F., Das, B., Yan, R., Vergallo, A., & Alzheimer's Precision Medicine Initiative (2020). B-secretase1 biological markers for Alzheimer's disease: State-of-art of validation and qualification. *Alzheimer's Research & Therapy, 12*(1), Article 130. https://doi.org/10.1186/s13195-020-00686-3

Giorgi, F. S., Biagioni, F., **Galgani, A.**, Pavese, N., Lazzeri, G., & Fornai, F. (2020). Locus coeruleus modulates neuroinflammation in parkinsonism and dementia. *International Journal of Molecular Sciences, 21*(22), Article 8630. https://doi.org/10.3390/ijms21228630

Giorgi, F. S., Saccaro, L. F., **Galgani, A.**, Busceti, C. L., Biagioni, F., Frati, A., & Fornai, F. (2019). The role of locus coeruleus in neuroinflammation occurring in Alzheimer's disease. *Brain Research Bulletin, 153*, 47–58. https://doi.org/10.1016/j.brainresbull.2019.08.007

Galgani, A., Palleria, C., Iannone, L. F., De Sarro, G., Giorgi, F. S., Maschio, M., & Russo, E. (2018). Pharmacokinetic interactions of clinical interest between direct oral anticoagulants and antiepileptic drugs. *Frontiers in Neurology, 9*, Article 1067. https://doi.org/10.3389/fneur.2018.01067

Book chapter

Galgani, A., & Giorgi, F. S. (2023). The role of brain noradrenaline in Alzheimer's disease: Implications for a precision medicine-oriented approach. In *Reference Module in Biomedical Sciences*. Elsevier.

Conference contributions

2025 · National Congress of the Italian Society of Anatomy and Histology (SIAI) · Ravenna, Italy

Long-Term Noradrenergic Denervation Induces Aging-Related Brain Pathology in Mice

Galgani A., Scotto M., Federighi G., Scuri R., Boido M., Vercelli A., Giorgi F. S.

2025 · Third Meeting of Experimental Epilepsy, Italian League Against Epilepsy (LICE)

Effects of chronic noradrenergic denervation on seizure threshold in an ageing murine model: exploring the possible link between Late Onset Epilepsy and Alzheimer's Disease

Galgani A., Scotto M., Federighi G., Scuri R., Faraguna U., Boido M., Vercelli A., Giorgi F. S.

2024 · National Congress of the Italian Group for the Study of Neuromorphology (GISN) · Catania, Italy

Effects of chronic noradrenergic denervation on murine brain ageing

Galgani A., Scotto M., Federighi G., Scuri R., Boido M., Vercelli A., Giorgi F. S.

2024 · National Congress of the Italian Society of Anatomy and Histology (SIAI) · Genoa, Italy

Locus Coeruleus sexual dimorphism and its impact on cognitive impairment and cortical atrophy in Alzheimer's Disease

Galgani A., Scotto M., Lombardo F., Giorgi F. S.

2024 · Alzheimer's and Parkinson's Disease Conference (AD/PD) · Lisbon, Portugal

The degeneration of Locus Coeruleus occurring during Alzheimer's Disease: a neuroimaging follow-up study

Galgani A., Lombardo F., Frijia F., Martini N., Tognoni G., Pavese N., Giorgi F. S.

2023 · 54th National Congress of the Italian Society of Neurology (SIN) · Naples, Italy

The degeneration of Locus Coeruleus occurring during Alzheimer's Disease: a neuroimaging follow-up study

Galgani A., Lombardo F., Frijia F., Martini N., De Cori S., Tognoni G., Siciliano G., Giorgi F. S.

Progetto Giovani grant, Italian Society of Neurology (SIN)

2023 · National Congress of the Italian Society of Anatomy and Histology (SIAI) · Modena, Italy

The neuroanatomy of Locus Coeruleus in normal ageing and in Alzheimer's Disease

Galgani A., Lombardo F., Martini N., Aghakhanyan G., Volterrani D., Tognoni G., Pavese N., Giorgi F. S.

Conference contributions

2023 · Alzheimer's and Parkinson's Disease Conference (AD/PD) · Gothenburg, Sweden

Locus Coeruleus features are associated to cortical hypometabolism in Alzheimer's Disease patients

Galgani A., Aghakhanyan G., Vergallo A., Lombardo F., Martini N., Baldacci F., Tognoni G., Siciliano G., Fornai F., Pavese N., Volterrani D., Giorgi F. S.

Different patterns of Locus Coeruleus involvement in Alzheimer's Disease and Lewy Body Dementia

Galgani A., Palermo G., Lombardo F., Martini N., Baldacci F., De Cori S., Frosini D., Tommasini L., Ceravolo R., Cademartiri F., Fornai F., Siciliano G., Pavese N., Giorgi F. S.

2021 · World Congress of Neurology · Virtual meeting

Locus Coeruleus assessment by MRI: A comparison of three different approaches

Galgani A., Martini N., Della Latta D., Vatti A., Hlavata H., Chiappino D., Vergallo A., Hampel H., Siciliano G., Pavese N., Fornai F., Lombardo F., Giorgi F. S.

Locus Coeruleus magnetic resonance imaging correlates with [18F]Fluorodeoxyglucose uptake in Alzheimer's disease patients

Galgani A., Aghakhanyan G., Lombardo F., Martini N., Baldacci F., Tognoni G., Ceravolo R., Vergallo A., Hampel H., Fornai F., Siciliano G., Pavese N., Volterrani D., Giorgi F. S.

Progetto Giovani grant, Italian Society of Neurology (SIN)

2021 · Alzheimer's and Parkinson's Disease Conference (AD/PD) · Virtual meeting

The involvement of Locus Coeruleus in Alzheimer's Disease and Other Degenerative Dementias: A 3T MRI Study

Galgani A., Lombardo F., Martini N., Della Latta D., Hlavata H., Palermo G., Ceravolo R., Tognoni G., Ghicopoulos I., Bonuccelli U., Fornai F., Siciliano G., Giorgi F. S.

2020 · Alzheimer's Association International Conference (AAIC) · Virtual meeting

Assessment of the integrity of the noradrenergic nucleus Locus Coeruleus during normal ageing by neuromelanin-3T MRI

Galgani A., Lombardo F., Hlavata H., Ghicopulos I., Coi A., Martini N., De Marchi D., Keilberg P., Tognoni G., Siciliano G., Ceravolo R., Pavese N., Fornai F., Bonuccelli U., Giorgi F. S.

In vivo assessment of the noradrenergic nucleus locus coeruleus in Alzheimer's disease and other types of dementia

Giorgi F. S., **Galgani A.**, Lombardo F., Palermo G., Hana H., Della Latta D., Ghicopulos I., Martini N., Baldacci F., Coi A., Tognoni G., Siciliano G., Ceravolo R., Pavese N., Fornai F., Bonuccelli U.

2019 · 49th National Congress of the Italian Society of Neurology (SIN) · Bologna, Italy

Validation of MRI 3T protocol for the assessment of Locus Coeruleus in healthy elderly subjects

Galgani A., Hlavata H., Lombardo F., Della Latta D., Martini N., Baldacci F., Ghicopulos I., Tognoni G., Ceravolo R., Pavese N., Fornai F., Siciliano G., Bonuccelli U., Giorgi F. S.

Progetto Giovani grant, Italian Society of Neurology (SIN)